



Northbridge Public Schools

Northbridge School Committee

87 Linwood Avenue, Whitinsville, Massachusetts 01588 (508) 234-8156 FAX (508) 234-8469 www.nps.org

Michael LeBrasseur, Chairperson, mlebrasseur@nps.org,
Brian Paulhus, Bethany Cammarano, Steven Falconer, Robert Dziekiewicz

Northbridge Public Schools School Committee Meeting

Tuesday, April 28, 2020 7:00PM

[Join with Google Meet](#)

meet.google.com/gjh-cqem-mnh · Up to 250 participants

Meeting ID

meet.google.com/gjh-cqem-mnh

Phone Numbers

[\(US\)+1 502-785-9588](tel:+15027859588)

PIN: 267 619 870#

This meeting is being held remotely in accordance with the Governor of Massachusetts' March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law G.L. c. 30A, Section 20

- I. Call to Order (7:00)
- II. Statement regarding Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law
- III. Attendance
- IV. Statement of Audio and Video Recording
- V. Statement of Mission
- VI. Public Comment (7:05)

Comments for this meeting may be emailed in advance of the 7:00 p.m. start time to school_committee@nps.org. All comments will be recorded in the record, and all attempts will be made to mention them live during the meeting. Any emails received during the meeting before the public comment period ends will also be attempted to be mentioned.

- VII. Superintendent's Report (7:10)
- VIII. Consent Agenda (7:15)
 - A. School Committee Meeting Minutes from April 14, 2020
 - B. Balmer Food Pantry Donations
- IX. Action Items (7:20)
 - A. SC Self Evaluation vote to authorize
 - B. School Choice
 - C. Bus Transportation fee refund

It is the policy of the Northbridge Public Schools not to discriminate on the basis of race, color, gender, religion, national origin, sexual orientation, gender identity, disability, age, or homelessness in its educational programs, services, activities, or employment.

- X. Discussion (7:25)
 - A. Last day of school
 - B. Friends of Lasell Field fundraising
 - C. Lasell Field usage/rental fees
 - D. School Committee Policy Subcommittee
 - E. Policy BB School Committee Legal Status
 - F. Fee Based Program Refunds
 - G. FY20 Budget Update
- XI. Information (7:40)
 - A. Remote Learning Plan
 - B. AP testing information and schedule (HS)
- XII. School Committee Individual Comments (7:45)
- XIII. Adjournment (7:50)
- XIV. Executive Session Pursuant to Massachusetts General Laws Chapter 30A Section 21(a) for the Following Purpose, Not to Return to Open Session:
 - A. Purpose (3) to Discuss Strategy with Respect to Collective Bargaining with Union Personnel



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Michael LeBrasseur, Chairperson, mlebrasseur@nps.org,
Brian Paulhus, Bethany Cammarano, Steven Falconer, Robert Dziekiewicz

Northbridge Public Schools School Committee Meeting Minutes Tuesday, April 14, 2020 7:00PM

This meeting is being held remotely in accordance with the Governor of Massachusetts' March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law G.L. c. 30A, Section 20

- I. Call to Order (7:00)
- II. Statement regarding Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law
- III. Attendance

Michael LeBrasseur	Present
Bethany Cammarano	Absent
Steven Falconer	Present
Brian Paulhus	Present
Robert Dziekiewicz	Present

Also in attendance Superintendent Amy McKinstry, Director of Business and Finance Melissa Walker

- IV. Statement of Audio and Video Recording
- V. Statement of Mission
- VI. Public Comment

No emails were received for public comment and no members of the public were on the call for public comment.

- VII. Superintendent's Report

Superintendent, Amy McKinstry shared thoughts and updates on happenings in and around the district during the COVID-19 Pandemic. MCAS has been cancelled for the year. Packet pick up and chromebooks went well with great support from the admin at the buildings. We will be doing a 2nd round of chromebook pickups for those families that are still in need. A Q&A survey has been put on the district website. Amy will be doing weekly Sunday night video's where she will be addressing questions and concerns. Amy also wanted to express her gratitude for all the hard work happening throughout the district. Food Service Grab N Go pick up days have changed starting this week to

Monday and Thursdays from 9am – 11am. We have added breakfast and lunch for Saturday and Sunday. Families who get free and reduced lunch can pick up breakfast and lunch on Monday for Monday, Tuesday, and Wednesday. Thursday’s you can pick up for Thursday, Friday, Saturday, and Sunday. Food Pantry pickups will also be available on Monday and Thursday’s between 9am-11am. Any families in need just need to email Karlene Ross or contact Central Office and we will get the boxes prepared for them. The weekly call with the commissioner indicates that we would be getting additional information regarding the closure after he meets with the Governor. We have our remote learning plan in place now.

VIII. Consent Agenda

- A. School Committee Meeting Minutes from March 10, 2020
- B. School Committee Meeting Minutes from March 24, 2020
- C. Warrant 40-36s 3/5/2020 \$177,192.45
- D. Warrant 40-38s 3/19/2020 \$479,935.83
- E. Warrant 40-40s 4/2/2020 \$210,171.93
- F. Jim Morrissette’s Oil Burner Services Inc. - Donation to the Balmer Food Pantry to support families in need during the COVID19 pandemic - \$1,000
- G. Blackstone Valley Physical Therapy Services, Inc. – Donation - the proceeds from a raffle to the Balmer Food Pantry - \$281.00

A motion was made by Brian Paulhus to accept items from the Consent Agenda as presented. The motion was seconded by Steven Falconer. The vote was taken by roll call vote and the following votes were recorded:

Michael LeBrasseur	Yes
Bethany Cammarano	Absent
Steven Falconer	Yes
Brian Paulhus	Yes
Robert Dziekiewicz	Yes

4 members having voted in the affirmative
 0 members having voted in the negative
 The motion was accepted with a roll call vote of 4-0.

IX. Action Items

A. Athletic/Club Fee Changes

A motion was made by Steven Falconer to accept Athletic Club Fee Changes as presented. The motion was seconded by Brian Paulhus. The vote was taken by roll call vote and the following votes were recorded:

Michael LeBrasseur	Yes
Bethany Cammarano	Absent
Steven Falconer	Yes
Brian Paulhus	Yes
Robert Dziekiewicz	Yes

4 members having voted in the affirmative
 0 members having voted in the negative

The motion was accepted with a roll call vote of 4-0.

X. Discussion

A. School Committee Self Evaluation

Michael referenced the packet in which he shared the self evaluation. Michael was looking for feedback from the committee about continuing with a self evaluation. Brian thought it was good to continue with the evaluation. Steve asked to be able to see past reports but thinks it would be good to continue. Bob asked what the timeframe would be. Michael would propose a timeline at the next meeting.

B. School Choice

Michael and Amy talked about the school choice process and shared thoughts.

C. Transportation Contract Amendment (COVID-19 Impact)

Melissa Walker provided an update regarding conversations with DESE and working with other districts that are using the same transportation provider for what the payment will look like during the closure as there is a lack of services being performed. Melissa has been talking with other area districts to negotiate with Vendetti. Melissa highlighted some of the points that were being discussed during the negotiations. There is a sample memorandum in the packet for review. All committees of other towns will be meeting this week. If the committee is comfortable with voting on it tonight that would be great it could be voted on at the next meeting. If the committee has reservations Melissa could bring that back to the others.

Michael, Bob, and Steve all asked some questions regarding the contract. Melissa was able to answer all questions the committee had.

A motion was made by Brian Paulhus to approve the Memorandum of understanding between Northbridge Public Schools and Vendetti Motors, Inc. dated April 14, 2020 as presented. The motion was seconded by Steven Falconer. The vote was taken by roll call vote and the following votes were recorded:

Michael LeBrasseur	Yes
Bethany Cammarano	Absent
Steven Falconer	Yes
Brian Paulhus	Yes
Robert Dziekiewicz	Yes

4 members having voted in the affirmative

0 members having voted in the negative

The motion was accepted with a roll call vote of 4-0.

D. Transportation Fees (COVID-19 Impact)

Melissa Walker provided various calculation examples in the packet to the committee.

Committee is starting to look at scenarios of the potential refunds due to the closures. The committee talked about waiting til the next meeting based on the assumption they would know more about the status of the closure. Potential club and athletic fee refunds were also

talked about at this time as well as preschool tuition. Everyone agreed to revisit after there is guidance to how long the closure continues.

XI. Information

- A. Approved SC Budget Subcommittee Minutes 10-7-2019
- B. Approved SC Budget Subcommittee Minutes 2-11-2020
- C. Approved SC Budget Subcommittee Minutes 3-3-2020

XII. School Committee Individual Comments

School Committee shared individual comments.

Next School Committee Meeting will be April 28, 2020

XIII. Adjournment

The motion was made by Brian Paulhus to adjourn the meeting. The motion was seconded by Steven Falconer.

A vote was taken by roll call and the following votes were recorded:

Michael LeBrasseur	Yes
Bethany Cammarano	Absent
Steven Falconer	Yes
Brian Paulhus	Yes
Robert Dziekiewicz	Yes

4 members having voted in the affirmative

0 members having voted in the negative

The motion was accepted with a roll call vote of 4-0

**SCHOOL COMMITTEE
AGENDA ITEM SUMMARY
(ACTION ITEM)**

**Agenda Item
For School Committee Meeting of
April 28, 2020**

SUBJECT: Donation

Person(s) preparing Agenda Item: Melissa Walker

Title: Director of Business and Finance

Listing of Attachments (supporting documentation):

BACKGROUND: The following donations have been received for the Balmer Food Pantry:

Steven and Sandra Benton - \$100.00

Mark and Bari Glazer - \$500.00

Arlene and Joseph Liscinsky - \$50.00

Uxbridge Church of the Nazarene/Valley Chapel - \$300.00

STATUS: The checks have been received. Checks included on this agenda item are checks that were received prior to April 22, 2020. Checks received after April 22, 2020 will be on future agenda items.

FINANCIAL IMPLICATION: The funds will be used to stock the food pantry/purchase gift cards for families in need.

RECOMMENDATION: That the School Committee accepts the donations, with gratitude.

Recommended by: Melissa Walker

Recommended by the Superintendent: _____

2020 School Committee Self Evaluation Timeline

- Tuesday, April 28th – SC vote to authorize
- Wednesday, April 29th – Survey Launched
- *Tuesday, May 5th – Response deadline*
- Tuesday, May 12th – Self Eval Results Review

Transportation Contract - Agreed Upon Credit

	Regular Day Bus	Mini/Lift Bus
Daily Rate Per Bus	369.86	461.39
% of daily rate paid during closure	82.5%	82.5%
Adjusted Daily Rate	305.13	380.65
Credit per Day Per Bus	64.73	80.74
Number of Buses	14	3
Total Credit Per Day	906.22	242.22

# of Days Closed	62		Total Credit
March 13 - June 19			
Calculated Credit	56,185.64	15,017.64	71,203.28

Transportation Fee - Refund Discussion

\$200 annual transportation fee up to 180 days of service = per diem of: \$ 1.11
(not factoring in \$50 late fee) up to 10 months of service = monthly of : \$ 20.00

1. Daily/Monthly pro-ration

	Days	Months
Days service not provided	62	3.5
Daily/Monthly refund	1.11	20.00
Total Refund	68.82	70.00

2. Flat fee refund - for example, a flat fee refund of 50.00

3. 17.5% Refund - Based on 82.5% payment to Vendetti 35.00

Estimated Refund Calculation

Approximate # of refunds*	361	361	361
Refund amount	35.00	50.00	70.00
Total refund	12,635	18,050	25,270

*Actual number of refunds will need to be calculated on an individual basis to take into account family caps, payment plans, currently enrolled students, etc.

Annual Budgeted Transportation Fee Revenue 72,500
YTD Revenue Collected (July - March) 41,650

Directions for Renting the Uxbridge Public Schools Building Facilities

- 1) Read and sign the last page of the Community Use of Facilities School Committee Policy KF.
- 2) Mail the completed Building Use Facilities Application and the signed last page of the School Committee Policy KF to Ann DeYoung, 9 North Main St. Uxbridge, MA 01569 or email to adeyoung@uxbridge.k12.ma.us **30 business days in advance** per the School Committee Policy KF.
- 3) If approved, a deposit equal to 100% of expected expenses is to be paid to reserve the building/facility. **It must be paid a minimum of fourteen (14) days prior to the scheduled event/activity.** Nonpayment of the deposit shall result in cancellation of the event/activity.
- 4) Notice of cancellation of an event/activity by the applicant shall be made forty-eight (48) hours prior to the event/activity. If cancellations occur before this 48-hour window, the applicant shall receive a full refund. For cancellations less than 48 hours, the applicant will be charged a 25% cancellation fee.

COMMUNITY USE OF FACILITIES

STATEMENT OF POLICY:

The Uxbridge School Committee will allow the use of its facilities as community centers for the integration of the Uxbridge community and for individual and family participation in wholesome, character building activities conducive to good citizenship. Use by organizations outside the Uxbridge community will be considered on an individual basis. Such use shall be scheduled so as not to interfere with the instructional and school related activities of the district. All requests will be considered on an individual basis and balanced against any potential financial impact to the school district's annual budget that such usage may involve.

School Affiliated Group Use

School grounds and buildings are maintained for school purposes. School programs have precedence over all others. Facilities may be used upon approval without charge by student organizations, parent-teacher organizations, Uxbridge teacher organizations and other organizations directly affiliated with the schools. Such use shall be approved by the Principal. The Principal, or his/her employee designee, is responsible for the supervision and security of the building and groups during affiliated group use of building or facility.

Non-School Affiliated Group Use

School grounds and buildings may be used by individuals and associations for activities of an educational, recreational, social, civic, philanthropic and like purposes as may be deemed for the interest of the community. The affiliation of any such association with a religious organization shall not disqualify such association from being allowed such a use for such a purpose.

APPROVAL PROCESS

1. Arrangements for the use of the school buildings or facilities must be completed at least thirty (30) business days before such actual use. Applications are available at the school office.
2. All arrangements for the use of facilities must be personally made by an adult who is an authorized representative of the sponsoring agency and assumes total responsibility. Any approval may be immediately terminated by the school Principal, her/his designee or in her/his absence, the attending policy officials, if in their judgment, such termination is warranted by existing conditions. Additionally, all extended use approvals issued are subject to cancellations on specific dates. (Preference will be given to members of the Uxbridge community.)
3. Applications will be prioritized according to the Uxbridge School Committee use guide. Priority will be given to traditional seasonal activities.

4. If school is cancelled for inclement weather or any other unforeseeable reason, all evening activities for the school facilities will also be cancelled.
5. Where appropriate, all groups or organizations utilizing any fields or facilities under the control of the school district shall submit proof of insurance as part of the required application paperwork.
6. Decisions regarding facility use are made by the School Business Manager and District Plant Manager in conjunction with the Building Principal. Approval process is as follows:
 - Individual or group requesting use of facilities will contact the Plant Manager for facility availability.
 - If the space is available, the Plant Manager will direct the renter to the Business Manager for completion of the payment process.
7. The school department reserves the right to cancel the use of fields, gymnasiums, or other facilities when deemed appropriate.

School Use Guide

The Uxbridge School Committee in attempting to make the school buildings available to the maximum number of persons/organizations in the community will consider applications for use in the following order whenever feasible and practical:

- A. Uxbridge school students (K-12)
- B. Uxbridge Support Group (UTA, Booster Club)
- C. Uxbridge Youth Groups
- D. Uxbridge Adult Recreation
- E. Civic Non-Profit Organizations
- F. Other Groups

The Uxbridge School Committee through its representatives will be the final determining agent regarding any scheduling conflicts.

SCHOOL USE RESTRICTIONS

- A. School Week Evening Hours activities during the school year (Monday-Saturday) will be restricted to 10:00 p.m.
- B. Sunday usage will only be approved for time extended after 10:00 p.m. with special approval by the Superintendent of Schools.

SOURCE: Uxbridge

Revised First Reading: 4/5/2016
Revised Second Reading: 4/26/2016
Voted & Adopted: 4/26/2016
Revised Second Reading and Voted: 11/01/2016

COMMUNITY USE OF FACILITIES AT UHS

The use of all UHS facilities, indoors and outdoors, primarily serves the activity needs of the students of the Uxbridge School District. This policy is intended to provide direction for the occasional use of these facilities by the community or other outside groups. Activities directly related to the school program or the support of the school program should have first priority in the use of interior areas of the high school, all outside fields and tennis courts. Community use of areas on the UHS campus is welcomed and encouraged during those periods when not being utilized for District or maintenance activities. Fees will be required for use of all spaces. A chart of 'user' fees for facilities at all District schools can be found on the official School Department website.

The following spaces within UHS and outside shall be made available for use, under conditions outlined in the Procedure process: gymnasium, auditorium, cafeteria, library, classrooms, and dance studio; all athletic fields including the synthetic turf field and track and field area. The weight room is not open to the public.

Tennis courts and the exterior (two) lanes of the track, used for walking or jogging only, will be open to the public when not in use with District activities.

A fee to cover custodial and utility costs shall be assessed at the contracted rate as deemed necessary by the Business Manager.

Fee Structure at UHS (300 Quaker Highway):

Cafeteria (max. 300)	\$85.00 per hour
Kitchen	\$75.00 per hour
Gymnasium	\$34.00 per hour
Auditorium (max. 400)	\$150.00 per hour
(Auditorium) Tech Support (includes AV)	\$25.00/hr.(min.3 hrs.)
Spotlight	\$25.00 per hour
Library	\$25.00 per hour
Classroom	\$25.00 per hour
Fitness Center (Dance space ONLY)	\$25.00 per hour
All Athletic Fields and Tennis Courts	\$150.00/hr. per 3-hr. timeslot (includes maintenance staff)

*A fee to cover custodial and utility costs shall be assessed at \$35/hr. as deemed necessary by the District Buildings and Grounds Manager.

Additions made 3/26/13

Voted & Adopted: 6/4/2013

Revised First Reading: 4/5/2016

Revised Second Reading & Voted & Adopted: 4/26/2016

Revised First Reading: 10/18/2016

Revised Second Reading and Voted: 11/01/2016

Fee Structure at McCloskey Middle School (62 Capron Street):

Cafeteria (max. 300)	\$85.00 per hour
Kitchen	\$75.00 per hour
Gymnasium (max. 575)	\$34.00 per hour
Auditorium (max. 600)	\$150.00 per hour
Spotlight	\$25.00 per hour
Library	\$25.00 per hour
Classroom	\$25.00 per hour

Fee Structure at Whitin Elementary School (120 Granite Street):

Cafeteria (max. 300)	\$85.00 per hour
Kitchen	\$75.00 per hour
Gymnasium (max. 386)	\$34.00 per hour
Spotlight	\$25.00 per hour
Library	\$25.00 per hour
Classroom	\$25.00 per hour

Fee Structure at Taft Early Learning Center (16 Granite Street):

Cafeteria (max. 300)	\$85.00 per hour
Kitchen	\$75.00 per hour
Gymnasium (max. 214)	\$34.00 per hour

Spotlight	\$25.00 per hour
Library	\$25.00 per hour
Classroom	\$25.00 per hour

Custodial and Cafeteria Worker Rates: \$35.00 per hour. Custodial costs will be assessed when a custodian is not on duty.

Revised First Reading: 10/18/2016
 Revised Second Reading and Voted: 11/01/2016

Policy KF Fee Schedule – General

1. Custodian – As per rate established by the contract.
2. Police – As per rate established between the local Police Association and the Board of Selectmen.
3. Security Guards – As per rate established by the service provider.
4. Rental Fees – As per attached sheet, will be charged to all groups except as follows:
 - 4.1 Uxbridge Groups supported by public funds or school support groups will be charged only those incidental costs the district may incur in making facilities or equipment available.
5. Rental and Custodial Fees – These fees will be deposited in the District’s “Facilities Use” revolving account.
6. All fees will be paid in advance.
7. Additional fees may be incurred for any equipment lost and/or damaged, and/or any special custodial requirements for clean up after facility rental.
8. For any event where it is deemed on-site administrative personnel is required the group will be assessed an hourly fee.

Notes:

1. **Heat is provided at standard building settings as established for the Uxbridge Public Schools.**
2. **No rented equipment may be taken outside of the Town of Uxbridge.**
3. **Flat rates for extended building use may be established by the School Business Manager with School Committee approval.**

I/We affirm that I/we have read and reviewed Policy KF, and that I/we understand the contents of this policy. I/We understand that my organization’s participation in this event is voluntary and that participants are free to choose not to participate in said event. By signing this application, I/we affirm that I/we have agreed to all terms of Policy KF and have decided to allow my organization to use the Uxbridge Public School’s facilities with full knowledge that the Uxbridge Public Schools’ will not be liable to anyone for personal injuries and property damage my participants may suffer during use of Uxbridge Public School’s facilities.

Date: _____

Signed: _____

Applicant

_____ on behalf of Organization

**UXBRIDGE PUBLIC SCHOOLS
BUILDING USE FACILITIES APPLICATION**

Date of Application: _____ Phone: _____
 Name of Applicant: _____ Email: _____
 Address of Applicant: _____
 (street) (town) (state) (zip code)

Name of Organization/Club Renting: _____
 Describe the event in detail _____

*** SMOKE MACHINES AND/OR FOG MACHINES ARE PROHIBITED ***

Please place a check mark next to the school and area you wish to rent.

School	Area Requested	Rate per Hour	
Taft Early <input type="checkbox"/>	Cafeteria (max 300) <input type="checkbox"/>	\$85.00	
Learning Center	Kitchen <input type="checkbox"/>	\$75.00	
16 Granite St.	Gym (max 214) <input type="checkbox"/>	\$34.00	
	Classroom <input type="checkbox"/>	\$25.00	
	Spotlight <input type="checkbox"/>	\$25.00	
	Library <input type="checkbox"/>	\$25.00	
Whitin Elementary <input type="checkbox"/>	Cafeteria (max 300) <input type="checkbox"/>	\$85.00	
120 Granite St.	Kitchen <input type="checkbox"/>	\$75.00	
	Gym (max 386) <input type="checkbox"/>	\$34.00	
	Classroom <input type="checkbox"/>	\$25.00	
	Spotlight <input type="checkbox"/>	\$25.00	
	Library <input type="checkbox"/>	\$25.00	
McCloskey <input type="checkbox"/>	Cafeteria (max 300) <input type="checkbox"/>	\$85.00	
Middle School	Gym (max 575) <input type="checkbox"/>	\$34.00	
62 Capron St.	Auditorium (max 600) <input type="checkbox"/>	\$150.00	
	Classroom <input type="checkbox"/>	\$25.00	
	Kitchen <input type="checkbox"/>	\$75.00	
	Spotlight <input type="checkbox"/>	\$25.00	
	Library <input type="checkbox"/>	\$25.00	
Custodial/Cafeteria	(if applicable) <input type="checkbox"/>	\$35.00	
			Total Due: \$ _____

Custodial costs will be assessed when a custodian is not on duty.
 Cafeteria help is needed when dishes, stoves and dishwashers are going to be used.

Date of Rental: _____

Purpose: _____

Time Range (i.e., 8:00 a.m. to 11:00 a.m.): _____

Additional Requirements: _____

Approved By: _____ Date: _____ Date: _____
 Principal Central Office

**UXBRIDGE PUBLIC SCHOOLS
BUILDING USE FACILITIES APPLICATION**

Date of Application: _____

Name of Applicant: _____ Phone: _____

Address of Applicant: _____
(street) (town) (state) (zip code)

Name of Organization/Club Renting: _____

Describe the event in detail _____

*** SMOKE MACHINES AND/OR FOG MACHINES ARE PROHIBITED ***

Please place a check mark next to the school and area you wish to rent.

School	Area Requested	Rate per Hour	
High School <input type="checkbox"/>	Cafeteria (max 300) <input type="checkbox"/>	\$85.00	
300 Quaker Hwy	Kitchen <input type="checkbox"/>	\$75.00	
	Gym <input type="checkbox"/>	\$34.00	
	Classroom <input type="checkbox"/>	\$25.00	
	Spotlight <input type="checkbox"/>	\$25.00	
	Library <input type="checkbox"/>	\$25.00	
	Auditorium (max 400) <input type="checkbox"/>	\$150.00	
	(Aud.)Tech Support (incl. AV) <input type="checkbox"/>	\$25.00	(min. 3 hrs)
	All Athletic Fields & Tennis <input type="checkbox"/>	\$150.00	(min 3 hrs)
	Courts (includes Maint. Staff)		
	Fitness Center <input type="checkbox"/>	\$25.00	Dance space ONLY
Custodial/Cafeteria	(if applicable) <input type="checkbox"/>	\$35.00	
			Total Due: \$ _____

Custodial costs will be assessed when a custodian is not on duty.

Cafeteria help is needed when: Dishes, stoves and dishwashers are going to be used.

Date of Rental: _____

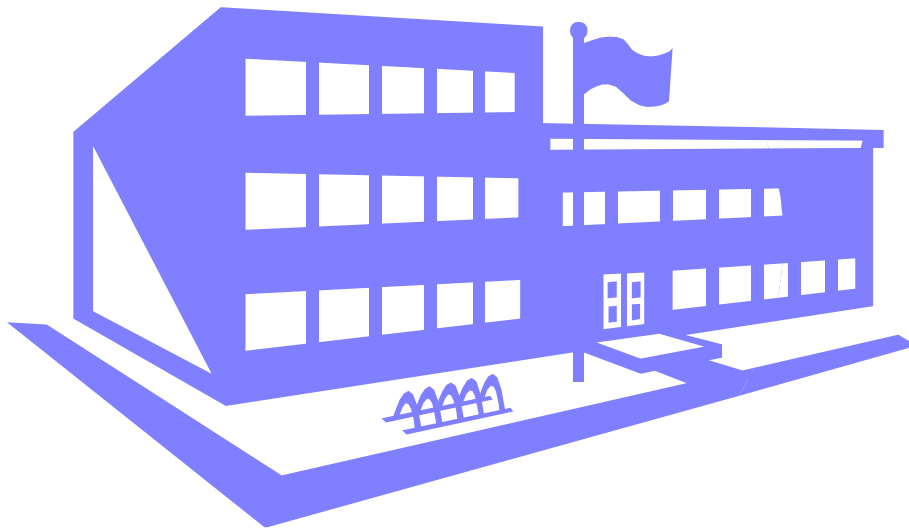
Purpose: _____

Time Range (i.e., 8:00 a.m. to 11:00 a.m.): _____

Additional Requirements: _____

Approved By: _____ Date: _____
Principal Central Office

Tantasqua Regional School District



Procedures and Guidelines
Governing Use of School Facilities

October 2019

Dear Community Member:

This packet contains all the information that you need to reserve school facilities in the Tantasqua Regional School District. The School Committee supports the use of school facilities by community groups (after normal use by students and faculty) and believes that such use enriches the quality of life in the Tantasqua communities for everyone – students and adults alike.

These procedures and guidelines represent the efforts of the School Committee to encourage the use of school facilities by groups in the Tantasqua member towns and bring greater consistency to the regulations and fee structure associated with the program.

Tantasqua has wonderful schools and community groups that have used school facilities for their meetings and events. The School Committee is pleased to invite you to hold your events in the schools as it continues to develop its partnership with the community.

Sincerely,

Superintendent of Schools

TANTASQUA REGIONAL SCHOOL DISTRICT

School Rental Application

Philosophy

The Tantasqua Regional School Committee encourages the use of school facilities for educational, charitable, recreational and civic purposes, sponsored by recognized, responsible organizations. The Tantasqua Regional School District is committed to ensuring that all of its programs and facilities are accessible to the public. We do not discriminate on the basis of age, color, disability, national origin, race, religion, sex or sexual orientation.

The Tantasqua Regional School District neither endorses, supports, nor sponsors any of the activities which may occur as the result of the use of the school facilities.

The use of facilities must be consistent with the district's energy conservation program and fees associated with the use will vary contingent upon the nature of the sponsoring group, the activity and the time of use. It is not the intent of the Committee that for-profit groups be subsidized by public funds. Such groups shall incur additional charges for the use of school buildings.

The building Principal serves as the School Committee's representative in processing applications, approving use and enforcing regulations. Any requests to waive or change fees must be approved by the Superintendent.

General Guidelines for Use:

1. For non-school related activities, all costs shall be borne by the user group. Fees will include the direct costs associated with the activity and overhead expenses.
2. The School Department requires that adequate staff be scheduled to ensure the security of the building and to provide for expedient cleaning. The terms of existing labor contracts will be consulted when assigning custodial fees.
3. All user groups shall save and hold harmless the Tantasqua Regional School District and its officers and employees and assume responsibility for all liabilities arising from incidents as a result of use.
4. A certificate of Insurance, with limits of at least \$1,000,000 Bodily Injury and Property Damage Liability per occurrence/\$3,000,000 aggregate, must be submitted as evidence of insurance coverage and must designate both the using organization and Tantasqua Regional School District as insured and not merely as certified holders.
5. The group categories and the fee schedules will be agreed to prior to usage approval.

Rental Group Categories

Group A: Recognized school or civic groups based in the Tantasqua communities but not necessarily established as non-profit organizations (e.g., PTO, School Councils, Music Association, Booster Club, etc.)

Group B: Non-profit groups with a majority of the participants residing in Tantasqua communities. (e.g. youth groups, churches and charities. Groups will be required to provide proof of tax-exempt status)

Group C: For-profit groups (e.g. private dance schools, theater groups) and non-profit groups that have fewer than half of the participants residing in Tantasqua communities.

Group D: For-profit camps and events (not sponsored by TRSD)

School Rental Fee Schedule

(rates subject to change per approval of School Committee)

Artificial Turf Fields

FIELD	GROUP A	GROUP B* M-F practices <i>(School Year)</i>	GROUP B** Game/weekend use <i>(Non-School Year)</i>	GROUPS C AND D
<i>examples</i>	<i>Boosters, TMA</i>	<i>TRY Lax, Youth Football, Youth Soccer</i>	<i>TRY Lax, local Youth Football, TRY Soccer</i>	<i>Sports clinics, State-wide sports groups</i>
Stadium	\$42/hr custodial (only if beyond 10pm M-F or on weekends)	\$0 for practices M-F, ending by 10 pm \$50/ hr if lights	\$80/hr, includes custodial coverage and \$50/ hr if lights	\$150/hr and \$42/hr custodial and \$50/hr if lights
“Cage”	\$42/hr custodial (only if beyond 10pm M-F or on weekends)	\$0 for practices M-F, ending by 10 pm	\$70/hr, includes custodial/staff coverage**	\$150/hr and \$42/hr custodial

*Group B practices are at no charge during the school year when custodial staff is regularly scheduled until 10pm. However, during summer break custodial staff schedules change to meet district needs. Field Open Hours will be posted each year. Any use outside of “Open Hours” will require Group B** rates.

** Group B rates have been set in anticipation of local youth groups hosting games/events that require participants from non-Tantasqua member communities.

For sports/events that require only participants from Tantasqua member towns, i.e. TRY Soccer, the weekend Cage rate will be only \$50/hr, including custodial/staff coverage. Stadium rates for these events will remain \$80/hr.

Other Usage Fees

Facility	Group A Rate	Group B Rate	Group C Rate
Auditorium	N/A	N/A	\$150 / hour
Gymnasium	N/A	N/A	\$500 / day
Cafeteria without Staff	N/A	N/A	\$250 / day
Regular Classrooms	N/A	N/A	\$75 / day (max. of \$225 per day if multiple classrooms are requested)
Lab Classroom:	N/A	N/A	\$150 / day
Athletic Fields (non-turf)	N/A	N/A	\$350 / day
Pool	N/A	N/A	\$75 / hour

**unless organizations provide certified lifeguards, actual costs of district lifeguards will be charged, regardless of the Group Category. (copies of lifeguard certifications must be provided)

Group D: For-profit groups or clinics: TBD by the Building Principal and/or Superintendent based on projected enrollment and anticipated revenues from event.

Personnel Fees (regardless of Group Category)

Custodial: A custodian must be on the premises at all times. Custodial fees and overhead fee *will* be added to above rates for any use beyond 10pm, Monday – Friday, and anytime on Saturday or Sunday. If the Principal determines that more than the regularly scheduled staff is needed, these costs will also be added to the facility rates. The current custodial rate is \$42/hr., but will change as contractual obligations change. The current overhead rate is \$20/hr per common area.

Kitchen: No access to the kitchen is available unless a cafeteria worker is present. This person will have full authority over all kitchen equipment and may restrict access to certain equipment. Current hourly rate is \$26.00, but will change as contractual obligations change.

Ancillary Charges: The use of AV staff, air conditioning, field lighting, or other costly services may result in additional charges to be determined at the time of request.

Police Officers: All organizations must arrange and pay for police services directly through the local Police Department if deemed necessary.

Concessions: All planned concessions must have prior approval from the principal. Any organization which does not plan to offer concessions but wishes to have them available should contact the principal, as Tantasqua student groups may be able to offer refreshments.

Outside Restrooms: Organizations requesting athletic field use are required to contact the local Board of Health and adhere to any requirements to provide portable restroom facilities.

A refundable deposit in the amount of 25% of the required fees shall be paid and received by the District no later than ten (10) days in advance of the rental date. This deposit will be applied to the final expenses. Deposits may be waived for Group A activities only.

Guidelines for Scheduling/Approvals

1. The building Principal, in attempting to make the school facilities available to the maximum number of persons/organizations in the community will consider applications for use in the following order whenever feasible and practical:

- Tantasqua School Students (7-12)
- Tantasqua Support Group (TMA, Booster Club)
- Youth Groups Sponsored by Member Towns
- Tantasqua Youth Groups
- Tantasqua Adult Recreation
- Civic Non-Profit Organizations
- Other Groups Located in Member Towns
- Other Groups Located outside Member Towns

The Principal will be the final determining agent regarding any scheduling conflicts.

2. **Single event** requests – must be made at least one month prior to the event
3. **Seasonal** requests – applications will be accepted four times a year as follows:
 - By July 1st for Fall activities
 - By September 1st for Winter activities
 - By January 1st for Spring activities
 - By April 1st for Summer activities
4. **Short term** on-going request – will be defined as more than seasonal, but less than six months. Any organizations, regardless of group category, using facilities for more than a season will be charged an Overhead fee to cover rising utility costs and general wear and tear of facilities.
5. **Long term** agreements – No agreements will be entered into for periods of more than six months per fiscal year with the exception of agreements for classrooms. Any long term agreements for classroom use must be approved by the Superintendent.
6. **June Weekends** – because the high school facilities have historically been in high demand for June weekends, a separate lottery will be held each year for such use. Applications must be submitted by September 1st of the prior year. Organizations requesting any weekend in June, other than Graduation weekend, will be pooled together and names drawn. Tantasqua staff will contact the first organization drawn and approve the weekend requested. The next organization will then be drawn and contacted with an option for whatever weekends are left, and so on. Residents or business/property owners from any of the Tantasqua towns will have priority, and will be pooled and drawn first. This lottery process will be completed by September 15th each year.

Regulations Governing Use of Facilities

1. Mass. General Law requires obtaining **Criminal Offender Record Information**, (CORI) for all volunteers and others who may have direct and unmonitored contact with children. This includes all volunteers, chaperones, coaches, etc. who may be assisting you. All organizations are responsible for adhering to these requirements and obtaining CORIs when needed.
2. Mass. General Law prohibits smoking or alcoholic beverages on school property.
3. Participants shall not be restricted from participation for reasons of race, religion, age, sex, sexual orientation, creed, national origin or disability conditions. However, the school committee is not prohibited from allowing the use of school premises by independent groups with restrictive membership.
4. In compliance with Massachusetts General Laws, the school committee prohibits firearms and other dangerous weapons in schools and adopts the statutory definitions of a firearm and other dangerous weapons in addition to any definitions it may include in its student-parent handbook.
5. Hazing of students is prohibited by state law, and is defined as any conduct or method of initiation into any student organization that willfully or recklessly endangers the physical or mental health of the student.
6. Food and drink shall occur only in authorized areas – never in the auditorium.
7. No other area than that approved for use on the application shall be used. No school material or furniture may be used without permission of the Principal. For any major function requiring use of a stage with scenery, the facility must be requested with additional time to allow setting up and dismantling of the scenery.
8. Users will assume full responsibility for the proper use of facilities and for payment of damages.
9. No gaming shall be permitted, except for Tantasqua Support Groups with approval from the principal.
10. If school is closed due to a snow day or other emergency, all events and activities will be cancelled. It is the organization's responsibility for rescheduling.
11. School personal properties, such as projectors, recorders, amplifying units, etc., are not included in the rental contract.
12. A letter of determination from the IRS or other documentation to verify tax-exempt status must accompany this application before an organization will be considered non-profit for fee setting purposes.
13. Thirty-six hours notice will be required in the event of cancellation; otherwise the applicant will be responsible for the custodial and facility rental fees.
14. The Tantasqua Regional Public Schools are not responsible for any personal property present or left on the premises.
15. Either the Principal or Superintendent reserves the right to refuse the use of facilities to any group that has violated any condition, rule, regulation, or guideline concerning use of the premises in the past or which has otherwise abused this privilege.

TANTASQUA REGIONAL SCHOOL DISTRICT FACILITY USE REQUEST

Event/Organization Name:
Contact Person:
Telephone:
Building requested:
Alternate building:
Describe function:
Dates requested:
Alternate dates:
Hours requested:
Alternate hours:
Number of Participants:

AREA(s) REQUESTED

Gymnasium Cafeteria Cafeteria with Kitchen Staff
 Auditorium Library Bathrooms
 Classroom(s) # _____
 Athletic Fields (non-turf) Athletic Fields (turf)
Other (specify): _____

ADDITIONAL REQUIREMENTS

1. Do you (the requesting organization) have an in-force General Liability Policy: _____ Yes _____ No

If yes, what are the limits of liability? (a certificate of insurance must be provided)
Bodily Injury \$_____ Property damage \$_____

2. Is your activity open to general public: _____ Yes _____ No
Will admission fee be charged? _____ Yes _____ No

3. Is organization non-profit? _____ Yes _____ No
If yes, is proper documentation included? _____ Yes _____ No

4. Will concessions be served by requestor? : _____ Yes _____ No
If no, would you like a Tantasqua Student Group to provide? _____ Yes _____ No

Regulations for use of building and/or property:
1. The use of school-sponsored activities will have priority over use by outside organizations. Per M.G.L.c.71, sec. 16(r) no use may interfere with the educational programs being conducted at the school.

PLEASE REFER TO THE PREVIOUS PAGES FOR RENTAL RATES, PERSONNEL CHARGES, AND RELATED INFORMATION

The individual signing the request form hereby assumes responsibility for any accidents, injury or damages that may occur to the building or equipment made available to him/her and for any repairs required as a result of same. Accidents or damages that occur during the use of a school facility must be reported to the principal or designee within 24 hours. In consideration for the use of facilities owned or operated by the Tantasqua Regional School District, the undersigned organization hereby releases and holds harmless the Tantasqua Regional School District and its employees, agents, and volunteers, (collectively "the District") from and against any and all injuries, damages, liabilities, actions, suits, proceedings, claims, demands, losses, costs and expenses (including reasonable attorneys' fees) that may arise out of or in connection with the use of such facilities by the undersigned organization or its employees, agents, or volunteers, and further agrees to indemnify the District from and against any and all injuries, damages, liabilities, actions, suits, proceedings, claims, demands, losses, costs and expenses (including reasonable attorneys' fees) by third parties arising out of or in connection with the organization's or its employees', agents', or volunteers' activities on or about the rented premises. Please familiarize yourself and your group members with this School Rental Contract and its attachments, sign and return. No reservation will be made until this application is returned to you with an approval signature.

I have read this Contract and all its attachments and the regulations for the use of the Tantasqua Regional School District property, and accept the responsibility for payment of bills, the observance of all regulations, and all terms hereof. I will finalize all arrangements with the building office one week prior to specified date and earlier to the extent required above.

DATE: _____ PHONE: _____

SIGNATURE: _____ PRINT NAME: _____

HOME ADDRESS: _____

Organization: _____

Address: _____ Phone: _____

PRINCIPAL SIGNATURE: _____

GROUP CATEGORY DETERMINED: _____

____ APPROVED (No Charges) _____ NOT APPROVED _____ APPROVED (Rental Charges)

____ Usage Fee _____ Custodial Charges _____ Kitchen Charges _____ Other
_____ Totals Fees

____ A current Certificate of Insurance, with at least \$1,000,000 Bodily Injury and Property Damage Liability per occurrence/\$3,000,000 aggregate, and showing the District as an additional insured and not merely as a certificate holder, has been provided.

Special instructions, if applicable _____

DATE: _____

Shrewsbury Public Schools

Policies, Procedures and Regulations Governing Use of School Facilities

Joseph M. Sawyer, Ed. D.
Superintendent

Dear Community Member:

This brochure contains all the information that you need to reserve school facilities in the Shrewsbury Public Schools. The Shrewsbury School Committee supports the use of school facilities by community groups (after normal use by students and faculty) and believes that such use enriches the quality of life in Shrewsbury for everyone – students and adults alike.

These policies, procedures, and regulations represent the efforts of the School Committee to encourage the use of school facilities by Shrewsbury groups and bring greater consistency to the regulations and fee structure associated with the program.

Shrewsbury has many school and community groups that have used school facilities for their meetings and events for many years. The School Committee is pleased to invite you to hold your events in the schools as it continues to develop its partnership with the community.

Sincerely,

Joseph M. Sawyer

Joseph M. Sawyer, Ed. D.
Superintendent of Schools

Facility Rental Rates Group Classification

Group A: Recognized school or civic groups based in Shrewsbury but not necessarily established as non-profit organizations

School operating budget pays for all costs associated with these activities to include overtime for custodians, cafeteria, and AV staff.

Group B: Non-profit groups and all other groups classified under section 501 (c) 3 of the IRS tax code, with a majority of the participants residing in Shrewsbury
\$80/hour for secondary school classrooms and all other spaces. (Elementary school classrooms are not typically rented.) Organizations in Group B may use designated classrooms without charge under the following circumstances:

- a) Timeframe: 5-6pm daily*
- b) School: designated by administration
*provided that regular custodial service is available.

Group C: For-profit groups and non-profit groups that have fewer than half of the participants residing in Shrewsbury.
\$105/hour for classroom or other similar spaces. (elementary classrooms are not typically rented)
\$260/hour for gym, cafeteria & auditorium spaces.
Additional charges will apply for:
Cafeteria Worker: \$30/hour; AV Technician: \$45/hour; Additional Custodian: \$35/hour; Police: billed by Police Dept.

Group D: For-profit camps

Fee will be 15% of gross revenue collected by camp operator. Other contracting provisions apply. Camp rental contract available at the Central Office located in the Town Hall. A projection of anticipated gross revenue may be requested along with a roster of participants.

Synthetic Turf Field Rental Rates

	Field Rental Per Hour	Lights Fee Per Hour	Facility Monitor Per Hour
Group A	N/A	N/A	N/A
Group B	\$80	\$25	\$30
Group C	\$150	\$25	\$30
Group D	\$150	\$25	\$30

REGULATIONS GOVERNING USE OF SCHOOL FACILITIES

In order to provide for the efficient and judicious use of school facilities, the following regulations will apply. All users of school facilities shall agree and ensure that:

1. 25% of required fees shall be paid ten working days in advance of use and that the balance will be paid upon billing.
2. A majority of the participants shall be Shrewsbury residents when fees are assessed from the “Shrewsbury non-profit” schedule (Group B).
3. No unauthorized third party shall be granted permission to use the facility or any portion thereof without prior approval from the Director of Business Services.
4. Participants shall not be restricted from participation for reasons of race, religion, age, sex, sexual orientation, creed, national origin or disability conditions.
5. The representative specified in the contract as responsible for school facilities (i.e., the person who reserves the space) shall be present at all scheduled event.
6. No signs, banners and pennants shall be erected without prior approval.
7. No school supplies (paper, cleaning materials, etc.) shall be used.
8. School Department equipment shall not be used (e.g., computers, copy machines, projection equipment, etc.) Any exceptions or specific requests in this regard shall be made in advance to the Director of Business Services.
9. The number of attendees at any event shall not exceed the authorized capacity of the facility. There shall be one chaperone for every 25 children.
10. Vehicles of participants shall be parked only in school parking lots.
11. Participants shall be restricted to assigned areas.
12. Food and drink shall occur only in authorized areas.
13. No nails, screws, hooks, or any fixture shall be attached to any part of the building.
14. There shall be no defacing or misuse of property and no marking or erasing of black/white boards (unless authorized).
15. Activities shall be orderly and, when necessary in the opinion of the Shrewsbury Public Schools, police will be hired to ensure public/property safety.

16. There shall be no smoking in any school building or on school grounds.
17. No alcoholic beverages shall be served or consumed in buildings or on grounds.
18. No gaming shall be permitted.
19. The use of animals on school property shall be permitted only when, in the opinion of the Shrewsbury Public Schools, such use will not promote undue risk to people or property. Animals shall not be permitted inside buildings (except in the case of guide dogs) without the express permission of the Director of Business Services, and, when animals are used on school grounds, the area shall be cleaned.
20. Contracted time limits shall be observed and the building left in a neat and orderly condition. Reimbursement shall be made for damages during the use.
21. They shall hold harmless and indemnify the Shrewsbury Public Schools with respect to any claim of loss, injury, or damage because of negligence of the user or user's employees or agents, including damage to school property. User groups are required to produce a certificate of insurance naming the Shrewsbury Public Schools as an additional insured.
22. They shall comply with all federal, state and local laws, regulations and licensing requirements, including but not limited to the Americans with Disabilities Act.

I hereby agree to the terms above as a condition of the use of school facilities in the Shrewsbury Public Schools:

Individual Reserving School Space

Date

Organization

Representative of the Shrewsbury Schools

Date

Grafton Public Schools Facility Use

Non-Profit / Town Affiliated Groups

Town	Auditorium	Cafeteria	Gym	Classroom	LGI Rm.	Library	Fields
All School Facilities excluding GHS	10/hr	10/hr	10 /hr	10/hr	N/A	10/hr	0/ hr
GHS Facilities	20/hr	20/hr	20/hr	20/hr	20/hr	20/ hr	20/hr

- Seasonal rental rates for gymnasiums and field will remain unchanged (\$75/season)
- If custodial is required for use of bathroom access or access to facilities on Saturday/ Sunday/ Holiday an hourly fee of \$35/hr (Saturdays)/ \$45/hr (Sundays/Holidays) will be charged
- Use of the GHS fields/stadium requires custodial services and \$20/Hr additional if field lights are being utilized
- If kitchen equipment is being used, additional fees for food service employee services will be charged
- Use of GHS Auditorium has additional fees as needed:
A/V Coordinator - \$30/hr weekdays and Saturday/Sunday/Holiday \$45/hr
Lighting/audio technician - \$25/hr
Use of stagle marley flooring \$200
Additional charges per schedule above for additional rooms use

For-Profit / Non-Town Affiliated Groups

Town	Auditorium	Cafeteria	Gym	Classroom	LGI Rm.	Library	Fields
All School Facilities excluding GHS	35/hr	35/ hr	35/hr	35/hr	N/A	35/hr	35/hr
GHS Facilities	120/hr	50/hr	50/hr	50/hr	50/hr	50/hr	100/hr

- Seasonal rental rates for gymnasiums and field will remain unchanged (\$75/season)
- If custodial is required for use of bathroom access or access to facilities on Saturday/ Sunday/ Holiday an hourly fee of \$35 Hour (Saturdays)/\$45 Hour (Sundays/Holidays) will be charged
- Use of the GHS stadium requires custodial services and \$20/ Hour additional if lights are being utilized
- If kitchen equipment is being used, additional fees for food service employee services will be charged
- Use of GHS Auditorium has additional fees as needed:
A/V Coordinator - \$30/hr weekdays and Saturday/Sunday/Holiday \$45/hr
Lighting/audio technician - \$25/hr
Use of stagle marley flooring \$200
Additional charges per schedule above for additional rooms use

NORTHBRIDGE PUBLIC SCHOOLS

POLICY FOR USE OF SCHOOL FACILITIES

School grounds and buildings are maintained for school purposes. School programs have precedence over all others. The Director of Operations shall approve such use. Fees for the use of facilities may be charged as indicated in the policy attached. If police coverage is necessary according to this policy, all organizations must pay those fees directly to the Northbridge Police Department.

School grounds and buildings may be used by individuals and associations for activities of an educational, recreational, social, civic, philanthropic and like purposes as may be deemed for the interest of the community. The affiliation of any association with a religious organization shall not disqualify such association from being allowed use for such a purpose.

Renting organizations will be responsible for:

The proper use of the facilities and the adult supervision of their own activities

Payment for damage or breakage

If applicable, groups agree to comply with M.G.L. c.6 section 172G and obtain all available criminal offender record information and juvenile data for all employees or volunteers prior to employment or volunteer service in conjunction with use or lease of school facility.

Police protection and supervision may be required for your event. It is the organization's responsibility to contact the Police Department to ask if service is required.

Organizations which misuse property or equipment or which fail to provide proper supervision risk refusal on future applications.

Alcohol beverages are not allowed on school premises.

No smoking in or on any school property per State Law.

Lotteries or other money-raising schemes, which do not have approval of State Law, are forbidden in or on any school building or grounds.

The use of decorations in any way dependent or affixed to walls, ceiling fixtures, windows, casings, doors, etc., is prohibited unless approved by the Principal or the Director of Operations.

Organizations wishing to bring equipment into school buildings must make arrangements at the time the application is made.

Persons bringing equipment into the school do so at their own risk. Such equipment shall be removed immediately when its use is concluded so as not to conflict with school use of area. Custodians should be notified of plans for removal.

When a contract is issued for a specific time, organizations concerned will not be allowed in the building before the time stipulated and should be out of the building no later than the stated time.

Soft drinks may be sold in those areas specifically designated by the custodian.

The custodian in charge shall report any abuse of school property to the Maintenance Office.

Cafeteria and kitchen equipment may be used only under the direction of school employees directly connected with the usual operation of such equipment.

All persons using school property are prohibited from bringing or using knives, pistols, guns or dangerous weapons of any kind. Only Town, State and Federal Law Enforcement Personnel are allowed weapons on school property.

The person signing the application must be present or provide acceptable adult supervision before entry is allowed into the building. The organization using school property shall be responsible for controlling the behavior or discipline of persons using or attending the buildings or grounds.

Children must be supervised at all times. There will be a minimum of one (1) adult chaperone for each 20 children present at youth activities.

Custodians and/or cafeteria personnel shall be paid from the time of their arrival, which is a minimum of ½ hour before the event is to begin, to the time of their departure, which is to be approximately ½ hour after the event is finished.

No personnel are to be paid directly by the user of the facilities. The user will be billed by the School Department for all costs.

The number of custodians assigned to your function will be decided solely by the Director of Operations and based upon the size of the group, nature of activity and area of building used.

In the case where separate groups use multiple facilities a custodian must be available for each area.

Groups of 100 or more may require Police protection at organization's expense unless excused by the Chief of Police. The Police Department must be notified by the organization before rental is approved by the School Department.

24-hour notice required for cancellation.

Tickets shall not be sold to exceed seating capacity.

No permission for a function will be granted to anyone less than 21 years of age.

NO furniture shall be removed from classrooms or any other room without a custodian present. If so, any damage to floors or furniture will be billed to organization.

AUDITORIUM

Smoking is prohibited per State Law.

Authorized personnel shall manipulate stage curtains and lights only

Pianos are not to be moved. You must make a request on the application for pianos to be moved.

If permission is granted to move a piano, it is done with the understanding that the persons or group making the request assumes the responsibility for any damages, including tuning, which may result from the move.

NO refreshments may be served or taken into the auditorium.

Organizations are not allow to be placed any nails, tacks, screws or other fasteners or deface any part of the building, nor shall any substance be applied to the floors.

A minimum of one (1) school custodian shall be in attendance. He shall be responsible for opening the area, and remaining in the immediate area to handle types of emergencies relevant to the nature of his work.

The use of open flame and pyrotechnics is prohibited in all school facilities.

GYMNASIUM

Smoking is prohibited per State Law.

Groups will furnish their own equipment, etc. and will not use apparatus, (ropes, ladder, etc.), unless specifically authorized by the Director of Operations.

Acceptable rubber soled footwear must be worn.

No refreshments may be served or taken into the gym.

Curtains, sliding wall panels and authorized personnel shall manipulate lights only.

Organizations are not allow to be placed any nails, tacks, screws or other fasteners or deface Any part of the building, nor shall any substance be applied to the floors.

DECORATIONS

All decorations must meet approved Fire and Safety standards.

Furniture, equipment, etc. wished to be stored in the school must be approved in advance by the Director of Operations and will be stored at the owner's risk.

Furniture, rubbish and all other materials used and brought into the building must be removed from the school premises within twenty-four hours after the use of the school.

For any major function requiring the use of the stage with scenery, etc., the facility must be requested for the extra time needed for setting up and dismantling.

KITCHENS

No group or organization may use the kitchen or kitchen equipment in the cafeteria unless a minimum of one (1) school cafeteria employee is on duty. Any damage or additional cleanup to school or equipment will be paid for by the renting organization.

If kitchen facilities are rented, food must be purchased and delivered by the sponsoring organization and may be prepared by the cafeteria staff. School food may not be used.

DAMAGE

The School Department holds the signatory to the application responsible for payment of damages to any school property damaged, stolen, defaced or mutilated. Payment for damage must be made before further use of school facilities will be permitted to that group.

LIGHTING, ELECTRICAL APPLIANCES

Facilities are to be used as furnished. Permission is required before any alterations, additions, equipment, special lighting or decorations are used.

LOAN OF EQUIPMENT

The Director of Operations shall give permission for use of any equipment such as chairs, stage properties, public address or visual aid equipment belonging to the Northbridge School Department.

LIABILITY

The permittee shall hold harmless and indemnify the Town of Northbridge and the Northbridge Public School Department, its officers, agents and employees from any and all liability for personal injury, death or property damage arising out of any permit issued or activities thereunder or in result or consequences thereof, except that which is caused solely by the Town, School Department, its officers, agents or employees. The Town of Northbridge and the Northbridge School Department accepts no liability for loss or damage to equipment, materials, or other individual property.

I further agree to adhere to all laws, rules, policies and fees set by the Town of Northbridge and the Northbridge School Department.

INSURANCE

The permittee will purchase public liability or other insurance at such limits as required by the Town of Northbridge and pay the cost of it. The Town of Northbridge is to be carried as an additional insured on any policy. It is **MANDATORY** that a certificate of insurance is issued to the Director of Operations before any facility is used. Neither the Northbridge School Department nor the Town of Northbridge will be responsible for injury to persons or property while any group uses the building or grounds. A minimum of \$1,000,000 Commercial General Liability Insurance coverage is required.

LASELL / HIGH SCHOOL FIELD

Organizations wishing to use the fields may do so by acquiring permission from the Director of Operations. Persons will be responsible for abiding by the guidelines as follows:

1. **Smoking is prohibited per State Law**
2. Horses, bicycles, mopeds and unauthorized motor vehicles, including snowmobiles are prohibited on the complex.
3. Alcoholic beverages are prohibited on school grounds.
4. Golf is not allowed on the complex.
5. The track is to be used for jogging only. Proper footwear, sneakers or jogging shoes is required.

RENTAL AND PERSONNEL FEES

Facilities and equipment may be used only as approved by the Director of Operations. The renting group or individual will also be assessed charges for custodial and/or cafeteria personnel. In addition, fees for necessary police officers will be paid directly to the Northbridge Police Department.

UTILITY FEES

Groups shall be charged a Utility Fee per day, regardless of the number of hours of use involved or the season of the year. **Refer to the rate sheet.** Charge includes several hours of “start up” operational time to achieve optimal temperature while event is taking place.

PAYMENT SCHEDULE

A deposit of the total fee must be paid upon reservation of room. The remainder of the amount owed must be paid 7 days prior to the event.

GROUP DEFINITIONS

- GROUP 1:** School and School Support (no fees)
Any group that is part of the internal group structure (band, school council, etc.) and organizations whose primary purpose is to support school activities (band boosters, parent clubs, etc.)
- GROUP 2:** Town Teams (no rental fee)
Town teams that comprised of **Northbridge Residence Only**. The inside facility is used for practice only.
- GROUP 3:** Local Non-Profit
Groups that are part of the Northbridge community and function on a non-profit basis (scouts, youth groups, clubs, town departments and recreational groups).
- GROUP 4:** Local For-Profit
Groups that are part of the Northbridge community and request use of facilities for pay or profit.
- GROUP 5:** Non-Local Non-Profit
Groups that are not part of the Northbridge community.
- GROUP 6:** Non-Local For Profit
Groups that are not part of the Northbridge community and request use of facilities for pay or profit.

**NORTHBRIDGE PUBLIC SCHOOLS
Whitinsville, MA**

APPLICATION FOR USE OF SCHOOL FACILITIES

Must attach Certificate of Insurance
Must attach request for special equipment and facilities

Name of Organization _____

School in which desired space is located _____

Rental Date: _____ Time: _____ To: _____

Rehearsal Dates: _____ Time: _____ To: _____

Purpose of Use _____

Estimated number of people attending: _____ Group Definition _____
(see page 6 of policy for correct definition)

We will be using the following areas:

Classrooms (how many) _____ Gym _____ Cafeteria _____

Athletic Field Without Lights _____ Athletic Field With lights _____

Auditorium _____ Kitchen _____ Others _____

Will refreshments be served? _____ Will concession stand be needed? _____

Special equipment required _____

I, as official representative of the organization named above, have read the Policy governing the use of school facilities and grounds, and am empowered to guarantee that this organization will comply with it in full. I understand, further, that should the Policy not be adhered to, permission for further use of school grounds or facilities may be denied. The school Principal and/or Director of Operations reserves the right to deny or rescind approval of use of a school facility based on good cause.

Signed _____ Title _____ Date _____

Address _____ Phone _____

_____ Zip _____

Contact Person: _____ Phone _____

PLEASE COMPLETE PAGES 7 & 8 AND RETURN TO:

Northbridge Public Schools
87 Linwood Avenue
Whitinsville, MA 01588

Northbridge Public Schools
Whitinsville, MA 01588

School Facility Use Release

I, _____
(Please Print)

understand and agree that, in consideration for being granted access to and the use of the property and facilities of the Northbridge Public School District, I assume any and all risk with respect to such access and use, and hereby release said Town of Northbridge and the Northbridge Public School District, its representatives, agents, servants and employees from liability for any injuries sustained or damage incurred in the course of such access and use resulting from any cause whatsoever which may be sustained.

Signature

Dated: _____

For Official Use

I (approve) (disapprove) this application _____

Principal and/or Director of Operations

Date received: _____

Date answered: _____

Permit #: _____

FACILITY USE RATES

Fees apply per use of facility											
No custodial charge during school hours											
	Custodial Staff	Cafeteria Staff	Cafeteria	Kitchen	Auditorium	Gym	Field House	Classrooms	Athletic Fields	Parking Lot	Media Center
GROUP 1											
School Based Organizations											
Rental Fee	per contract	per contract	no fee	no fee	no fee	no fee	no fee	no fee	no fee	no fee	no fee
Utility Fee			no fee	no fee	no fee	no fee	no fee	no fee	no fee	no fee	no fee
GROUP 2											
Town Teams (Comprised of Northbridge Residents Only)											
Rental Fee	per contract	per contract	no fee	no fee	no fee	no fee	no fee	no fee	no fee	no fee	no fee
Utility Fee			\$110	\$75	\$110	\$75	\$120	\$25	no fee	no fee	\$60
GROUP 3											
Local Non-Profit											
Rental Fee	per contract	per contract	\$30	\$30	\$60	\$60	\$90	\$15	\$85	no fee	\$25
Utility Fee			\$110	\$75	\$110	\$75	\$120	\$25	\$145	no fee	\$60
GROUP 4											
Local For Profit											
Rental Fee	per contract	per contract	\$90	\$60	\$120	\$180	\$240	\$85	\$120	no fee	\$120
Utility Fee			\$110	\$75	\$110	\$75	\$120	\$25	\$145	no fee	\$60
GROUP 5											
Non-Local Non-Profit											
Rental Fee	per contract	per contract	\$60	\$30	\$90	\$120	\$180	\$60	\$90	no fee	\$60
Utility Fee			\$110	\$75	\$110	\$75	\$120	\$25	\$145	no fee	\$60
GROUP 6											
Non-Local For Profit											
Rental Fee	per contract	per contract	\$120	\$90	\$180	\$240	\$360	\$120	\$240	no fee	\$240
Utility Fee			\$110	\$75	\$110	\$75	\$120	\$25	\$145	no fee	\$60
Revised 2/2015											

File: BB

BB-SCHOOL COMMITTEE LEGAL STATUS

There shall be a school committee consisting of five members elected for terms of three years each, so arranged that the terms of office of as nearly an equal number of members as is possible shall expire each year. ~~There shall be a School Committee consisting of nine members elected for terms of three years each so arranged that the terms of three members shall expire each year.~~

The School Committee is the governing board of the town's public school system. Although it functions as a duly elected committee of town government, the School Committee has, unlike other town boards, autonomous and absolute authority within limitations established by the Commonwealth of Massachusetts to carry out the educational policies of the state and guide the educational process.

Established by law

LEGAL REFS.: M.G.L. 41:1 and 71:37 specifically, but powers and duties of school committees are established throughout the General Laws of Massachusetts Relating to School Committees

**Northbridge Public Schools
Updated Remote Learning Plan**



Effective May 4, 2020

This document is the result of many planning meetings with administrators, teacher leaders, our Special Education Parent Advisory Council, and multiple staff members across the district since the initial closure was announced in March. It also takes into consideration the updated recommendations made by the Massachusetts Commissioner of Education, Jeff Riley, on 4/24/20, which are outlined below.

Our initial guidance, particularly the guiding principles, provides clear direction to keep equity at the forefront of our efforts to improve remote learning and to maintain focus on our most vulnerable students. We must continue to work towards an effective and equitable learning experience for all. With this in mind, **we recommend districts and schools focus on the following goal through the end of the school year:**

Move all students toward consistent engagement in remote learning, with a focus on connectedness and on the content standards most critical for success in the next grade.

To do this, we recommend that districts and schools take the following steps:

Strengthen the remote learning program for all students. We recommend that districts and schools focus on the following elements to ensure a strong baseline remote learning program.

1. Prioritize **meaningful connections** with educators and peers.
2. Provide engaging core instruction focused on the **prerequisite content standards** that are most critical for student success in the next grade.
3. Offer opportunities for enrichment, exercise, and play.
4. Ensure programming is accessible and secure and communication is streamlined for students and their families.

Develop a system for identifying and supporting students not effectively engaged in remote learning. We recommend that districts and schools:

- Collect information to understand each student's level of engagement in remote learning.
- Provide supports to further engage all students, with a focus on meeting foundational student needs.

We also encourage districts and schools to:

Consider the strategic collaboration, teaming, and differentiated roles that remote learning makes possible. Rethinking traditional responsibilities and eliminating duplicative work can ease the pressures on educators and make the best use of their unique skills.

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Staff Expectations

Teachers:

- Staff will provide their students with meaningful and engaging learning opportunities that reinforce or extend previous learning to a level appropriate to courses and grade levels
- Staff may offer multi-day projects, interdisciplinary projects/assignments, daily classwork, or a menu of choices, whichever is appropriate for the intended outcomes of the lesson(s) and the learning needs of the students in the class.
- All work assigned will include suggestions and opportunities for students to scaffold and/or break the work into smaller more manageable chunks.
- Teachers will continue to reinforce previously learned skills, and they will also present new concepts based on the **prerequisite content standards** recommended by the Department of Education, however, access for ALL students in the class must be considered when doing so.
- Assignments/projects should not require students to acquire materials that they do not already have access to in their homes or that has not been provided for them
- Teachers in Grades K-12 will use Google Classroom and Google Meets as their primary method to deliver instruction and instructional materials to students. However, teachers in Grades PK-1 may also opt to use *SeeSaw* in lieu of Google Classroom, and teachers at any level who are currently using *Zoom* for virtual instruction may continue to do so, provided they strictly adhere to the guidelines and safety protocols provided by our technology department.
- Any staff member who requires training in Google Classroom or its associated functions should contact Mr. Amitrano at aamitrano@nps.org at their earliest convenience. Any staff member who requires training or help setting up their SeeSaw account should contact Jean Schulz at jschulz@nps.org at their earliest convenience.
- Teachers/schools may provide paperback books to students (during designated pick-up times) who need them or require them to engage in the learning opportunities being offered.
- In lieu of formal CPTs and PLCs, teachers will continue to collaborate with their peers on interdisciplinary projects, lessons, units, student work, etc. in a manner and at times that work for them.
- Teachers will stay connected to students via Google Classroom, email, virtual meetings and/or telephone and **contact will be consistent and ongoing throughout the closure.**
- Teachers will provide students (and parents in Grades PK-4) an outline/list of all assignments, due dates and virtual meetings that will take place each week. This outline/list should be given prior to the first assignment or meeting.
- Teachers will provide direct instruction to students by utilizing either a live virtual classroom (via **Google Classroom** or **Zoom**) at least twice (two different days) per week, OR they will record and post a video presenting a lesson at least twice per week (or a combination of the two options.) The structure and time frames for these virtual lessons will be flexible and may vary in form and format based on grade- level and subject area. Further guidance will be provided at the individual building level.
- Teachers will conduct a Google Meet or Zoom meeting with their students at least once per week to **check-in** and connect with their students. This could be in the form of a “**morning meeting**”, **virtual lunch or recess**, **teacher-monitored peer interaction**, **office hours**, **extra help session**, etc.
- Teachers will provide **meaningful feedback** to students on their work and participation.
- All interactions with parents/families will be documented in a communication log by each staff member (*suggested format will be provided by district*). It is recommended that this documentation is done within 24 hours of the interaction, so the information is as accurate as possible.
- Teachers will notify administration if they cannot reach a student or their family or if they have any concerns about a particular student based on their lack of participation.
- Special Education teachers and English Language Learner teachers will consider individual student goals and collaborate frequently with the General Education teachers to ensure that lessons and assignments are differentiated to meet the needs of all learners and that the accessibility of the learning opportunities is maximized for ALL students.

Team Chairs:

Team chairs will continue to hold IEP meetings, if appropriate, and with collaboration from family and staff to determine the date and time of the meeting. Team chairs will make every effort to streamline these meetings to minimize the time that staff members are unavailable to provide learning opportunities for their students. They will also create schedules with dedicated blocks for “office hours,” at which time they will offer support to families and staff. Team chairs will collaborate with administration and staff to support learning opportunities for students on IEPs. Team chairs will attend weekly Team Chair meetings with the Director of Pupil Personnel.

Occupational Therapists/Physical Therapists/Speech Language Pathologists:

OTs/PTs/SLPs will offer weekly consultations to families on their caseload to address any concerns or questions they may have. They will also provide a weekly activity for students on their caseloads, with step-by-step directions or virtual modeling that parents can use to support their students at home. (ex. video lesson, virtual classroom, email, phone conversation.) OTs/PTs/SLPs will create a dedicated time for “office hours” each day during which they will be available to troubleshoot any pressing issues or concerns parents may have. They will also collaborate with teachers/other service providers to incorporate previously learned skills into general education projects/assignments, through Google Classroom, email, phone conversation or any other appropriate means. OTs/PTs/SLPs will collaborate with 1:1 IAs to provide direction on what activities/consultations/check-ins they can be doing to assist the students on their caseloads, as applicable. OTs/PTs/SLPs will attend virtual IEP meetings as necessary, within the constraints of their schedules. OTs/PTs/SLPs will complete progress reports, as they are able, using any available data. OTs/PTs/SLPs will maintain communication logs that document any and all interactions, or attempted interactions, with families.

Speech and Language Pathologist Assistants:

SLPa’s will collaborate weekly with the Speech Language Pathologists, as well as classroom teachers, as advised by the SLP. They will also provide a weekly activity for students on their caseloads, with step-by-step directions or virtual modeling that parents can use to support their students at home (ex. video lesson, virtual classroom, email, phone conversation.) SLPa’s will create a dedicated time for “office hours” each day during which they will be available to troubleshoot any pressing issues or concerns parents may have. SLPa’s will maintain communication logs that document any and all interactions, or attempted interactions, with families.

Instructional Assistants:

Instructional Assistants will communicate and collaborate weekly with their Kindergarten teacher/special education teacher/SpEd liaison. With guidance and direction from their special education liaison, IAs will provide appropriate academic support for students on their caseload. With guidance and direction from their special education liaison, IAs will check-in with students to gauge the progress and needs of their students and support their social-emotional health. IAs will maintain communication logs that document any and all interactions, or attempted interactions, with students and/or members of the family.

Behavior Technicians:

Behavior Technicians will collaborate weekly with their special education teacher/liaison/adjustment counselors to develop and implement plans and activities that support students with behavioral plans and needs. These activities may include but are not limited to: demonstrating the use of coping strategies to manage frustration while playing a board game/video game, using pre-identifying language such as “I am in the yellow zone” when frustrated, give examples of coping strategies to use when frustrated such as going for a walk or drawing. With direction from their special education liaison, BTs will check-in with students and families to support their social-emotional health. Behavior Technicians will provide guidance to parents/families seeking strategies related to student behaviors at home. Behavior Technicians will maintain communication logs that document any and all interactions, or attempted interactions, with families and/or students.

504 Coordinators:

The 504 coordinators will reach out to families with students on 504s to help them identify and develop accommodations in the home that align with those utilized in the classroom. Additionally, the coordinator will collaborate with teachers on providing learning opportunities for students which may require adjustments to support the student's needs based on their 504 plan.

Guidance (HS):

Guidance counselors will respond to questions and concerns from students and families and direct individuals to the appropriate staff if they are unable to assist. Guidance counselors will maintain weekly contact with students on their caseloads who may be in danger of failing, as well as students who they know may be experiencing emotional distress during this closure. Guidance counselors will create a dedicated time for "office hours" each day during which they will be available to troubleshoot any pressing issues or concerns parents or students may have. Guidance counselors will participate in IEP meetings and other requested meetings, when appropriate. Guidance counselors will maintain communication logs that document any and all interactions, or attempted interactions, with families and/or students.

Psychologists and School Adjustment Counselors:

Counselors and psychologists will continue providing services to students on their caseloads in a one-to-one format. They should respond in an expeditious manner to students who reach out to them directly. They will also communicate with families about student participation concerns relayed to them by the teachers, as well as student health and wellness concerns that may arise. Psychologists and SACs will maintain communication logs that document any and all interactions, or attempted interactions, with families and/or students.

Title I Staff:

Title I staff will work collaboratively with teachers to ensure that learning opportunities are made accessible for students on their caseloads, particularly our "at risk" students. They will collaborate with teachers to develop lessons and/or pre-teaching or re-teaching opportunities of math and ELA concepts to support classroom activities. Title I staff will work with our highest risk students in small groups 2-3 times a week and provide additional resources to students/families to practice specific skills (ie, fluency, reading comprehension, vocabulary, writing, math concepts). In addition, Title I staff will maintain communication logs that document any and all interactions, or attempted interactions, with families and/or students.

Title I Family Liaisons:

The role of the Family Liaison is to serve as a bridge of communication between NPS parents, teachers and students. Parent Liaisons will provide parents with practical information on how to support their child(ren) through their studies and social interactions.

BRIDGE Staff:

BRIDGE staff (adjustment counselor/classroom liaison) will respond to questions and concerns from students and families and direct individuals to the appropriate staff if they are unable to assist. They will maintain weekly contact with all students within the program and offer ongoing feedback to classroom teachers on student progress and strategies to support the learning of our transitional students.

BRIDGE staff will create a dedicated time for "office hours" each day during which they will be available to troubleshoot any pressing issues or concerns parents or students may have. BRIDGE staff will participate in IEP meetings and other requested meetings, when appropriate. BRIDGE staff will maintain communication logs that document any and all interactions, or attempted interactions, with families and/or students.

Nurses:

School nurses will be expected to maintain weekly contact with students and their families on their caseload and students identified as “high risk.” School Nurses will provide social-emotional and wellness support to students (and families) referred to them by counselors or psychologists. School Nurses may also work on updating student records or the district Health and Wellness Plan. Nurses are encouraged to seek out online professional development opportunities as they apply to them, and as time permits. School nurses will participate with district-wide personnel in developing a “re-entry” plan prior to the re-opening of schools to address ongoing health and safety needs and concerns. School nurses should inform administration and the student’s teachers if they become aware of a sick student.

Tech. Department:

The technology department will be working remotely. They will be checking their emails throughout each day so that they can respond to requests for assistance with an online learning platform(s), Google tools, virtual meeting help, and any other tech. support that staff are looking for throughout the closure.

Families will also be given tech. department emails in case they need assistance at home. Each member will create a schedule of hours that they will be available for immediate support during the day. Any other requests made will be responded to within 24 hours.

K-8 Instructional Coach:

The K-8 Instructional Coach will meet regularly with Department Chairs, Teacher Leaders, and/or teacher teams to identify resources and develop lessons/projects that provide meaningful and productive learning opportunities for students. The coach will check-in to Google Classrooms and other learning environments to support staff in their efforts to provide ALL students with equitable access to learning experiences. The coach will work as a liaison between administration and teachers for the purpose of supporting the goals of the Student Learning Plan.

Building Administrators:

Building administrators should have access to all Google Classrooms, Zoom sessions, and any other platform being used by staff to allow them to check-in on student learning. Building administrators will not be evaluating teachers during these check-ins. Building administrators will help their staff members with any issues related to student behavior or impropriety in these new learning environments.

Building administrators will also act as liaison between teachers and counselors for the purpose of keeping track of students who may be flying under the radar or who are not participating in the learning opportunities. Building administrators will also request well-child checks for students and families who cannot be reached or whose teachers have not had interactions with them for an extended period of time. Building administrators will provide guidance and assistance to any teacher who is sick or unable to conduct their learning opportunities due to unforeseen circumstances.

District Administrators:

District administrators will provide ongoing logistical support, as well as administrative and staff support in the areas of technology, instruction, and special education. The district will also engage in continuous communication with staff and families throughout the closure and will respond to staff questions or requests within 24 hours. District administrators, along with building administrators, will also continue to meet virtually to ensure the success of the Student Learning Plan and to further plan for an extended closure, as well as to plan for how we are going to mitigate the potential effects this closure could have on our students next year.

Administrative Support Staff:

Administrative support staff at both the building and district level will continue to work remotely during their regular work hours. All admin. staff have phone calls forwarded to their own phones and email addresses so that they can receive messages from staff and families and respond in a timely manner. Building secretaries who receive calls about sick students (or students who have any other issues that would cause a disruption in their education) should inform the school nurse, so that she can document the illness/issue and inform the student's teachers of the same. Admin. support staff will come into the buildings periodically, to gather or drop-off work and materials or sort and drop off mail as needed to ensure the continued function of each building's main office.

ALL STAFF will make every effort to respond to parent and student questions and correspondence in a timely manner. However, students should make every effort to check their Google Classrooms prior to emailing their teachers, to ensure that the questions or concerns they are emailing about are not readily available and answered within their Google Classrooms.

ALL STAFF should notify the appropriate administrator if they are sick or unable to conduct their daily learning opportunities for students, so that administrators can assist in ensuring students continue to receive assignments, support and any other usual assistance.

ALL STAFF will ensure that, **to the greatest extent possible**, within the confines of our situation and ability to do so, each student with a disability is provided special education support and related services as outlined in their IEPs. In addition, our English Learners will be provided as much language support as possible to minimize the impact on their language development.

Parent/Family Expectations

- Parents will communicate with teachers/counselors when/if they require support with the academic and/or social emotional needs of their child.
- Parents will reach out to administration, counselors, or teachers to request access to the Food Pantry.
- If using a district provided device, parents will use the highest level of care to ensure that the device is returned in the same condition it was received, and that it is used and stored properly while in their possession.
- Parents will monitor their child's use of technology to ensure they are acting in accordance with the district's Acceptable Use Policy.
- Parents will assist their children, when possible, and as appropriate, with the learning opportunities and assignments provided by their child(ren)'s teachers.
- Parents will inform their child(ren)'s teachers, counselors or administrators if their child is refusing to participate in the learning.
- Parents will ensure that students are given the space, time and access needed to complete their work and participate in learning opportunities provided by their teachers.
- Parents of special education students should make sure to refer to their student's **Distance Learning Plan** for guidance related to their child's special education supports, services and instruction.
- Parents will contact the school nurse or main office secretary at their child's school if their child has an illness or issue that is preventing them from participating in learning opportunities, similarly to calling your child in sick during the regular school year.

***** Parents will not hesitate to reach out to us for ANY kind of assistance they need for themselves or their child(ren) during this closure.**

Student Expectations

Teachers will continue to reinforce prior learning and teach new materials and concepts focused on prerequisite content standards recommended by the Department of Education. Students should be actively engaged in all learning sessions and experiences to ensure that they are able to learn the new material and concepts as presented.

- Students are expected to fully engage in the learning opportunities provided by their teachers.
- Students are expected to check their school emails and Google Calendars daily and respond to teacher requests or questions in a timely manner.
- Students should log in to their **Google Classrooms** daily (Gr. 2-12) or **See Saw** (Gr. PK-1) and participate in a meaningful way (i.e. by interacting with classmates, engaging in discussions, providing written feedback, etc.)
- Students in Gr. PK-1, with assistance from their families, should also participate in the platform created by their teacher for their class.
- Students should do the work and projects assigned by their teachers in a timely manner.
- Students should reach out to their teachers and counselors for academic support and other non-academic support as needed.
- Students should conduct themselves in a respectful manner when in a virtual environment with their teachers and classmates, as well as in any online format (including Google Classroom.)
- If using a district provided device, students will use the highest level of care to ensure that the device is returned in the same condition it was received.
- Students will use district-provided devices in an appropriate manner and in accordance with the district's Acceptable Use Policy.

Student Work and Accountability

MS/HS:

- **Effective April 9th**, all student work will be graded. The grading will be based on a 0 -3 scale. (See MS/HS rubric: <https://drive.google.com/open?id=117sJVflhE1Z9CSHcIBMGOXDL9xtuFMLV>)
- Based on the ratings for all work completed at the end of the quarter/closure, students will receive a grade of PASS or FAIL. (** *The district is still working to determine this PASS/FAIL grade will impact a student's end of year grade. More information will be provided on this in the coming weeks.*)
- If students receive a NOT MEETING or PARTIALLY MEETING expectations on any assignment, they may resubmit that assignment for a MEETING or EXCEEDING expectations rating.
- HS Students currently enrolled in VHS classes will continue to receive numerical grades for those classes.
- ALL final exams at the high school will be waived for this school year.

Elementary (PK-4):

- Students will be given feedback from their teachers on work attempted or completed.
- Some assignments may be **optional**, but some will be **required**. Teachers will inform students/families which are optional and which are required.
- Teachers will review the number of **required** assignments completed by each student throughout the duration of the closure, as well as the student's level of effort and participation on each assignment, to determine the student's grade/rating on the work.
- Students will receive a rating of **Meeting Expectations, Partially Meeting Expectations or Not Meeting Expectations** on all work submitted. (See Elementary rubric: https://drive.google.com/a/nps.org/file/d/1ac-cVlwxZhpT1_rb43aKzu9YwVs-zB_g/view?usp=sharing)
- Students will be given an opportunity to revise work that is not meeting expectations or is partially meeting expectations.

**** These guidelines are flexible for students in Pre-School and Kindergarten.**

Technology (Devices, Use and Support)

This Remote Learning Plan is highly dependent upon technology, both to provide access to instructional material and to serve as the primary platform for collaboration in teaching and learning.

The technology department is providing continuous support to all users in the district as needed, both remotely and on-site, as required by network management.

Technology Department contacts:

- For general district technology questions, please contact: Greg Palmer (gpalmer@nps.org)
- For tech support for the ChromeBooks, please contact Clis Cabral (ccabral@nps.org)
- For support with Google, including, *Meet, Hangouts and Classroom*, please contact:

Anthony Amitrano: aamitrano@nps.org

Lori Hippert: lhippert@nps.org

Jean Schulz: jschulz@nps.org

Acceptable Use Policy:

The NPS AUP is found here: <https://www.nps.org/district/technology/pages/acceptable-use-policy>. While this policy is currently being updated, it guides acceptable uses of technology in the district. All aspects of confidentiality and liability as outlined in the AUP apply to all of our users and learning spaces, **whether on campus or remote**.

Important safety and privacy concerns:

- Never share usernames or passwords with anyone
- For video lessons, be conscious of your background and surroundings
- Practice safe browsing
- Do not download unauthorized or objectionable content

Recording of Learning Sessions:

Prior to participating in a learning session or meeting that may be recorded, participants will be required to “click” sign a document (disclaimer) agreeing to abide by all Handbook policies, our Acceptable Use Policy, and other appropriate internet conduct requirements set forth in the disclaimer. For our elementary students, parents will need to “click” sign same.

Chromebook Care at Home:

The best way to care for your borrowed ChromeBook centers around a strong common sense approach.

- Never eat or drink near your ChromeBook
- Open and close the lid carefully each time
- Wipe your keyboard with a clean cloth or paper towel as often as needed (do not use liquid)
- Store your ChromeBook in a safe and secure spot when you are not using it (away from extreme heat or cold)
- Be sure to charge it when not in use

Food Services and Food Pantry

Grab n' Go Breakfast and Lunches (Free and Reduced):

- *Grab n' Go* service of breakfasts/lunches will continue to be available at Balmer Elementary for curbside pick-up.
- However, **please note**, in order to provide additional meals for Saturday and Sunday, **we are changing the pick-up days from Monday and Wednesday to Monday and Thursday from 9:00 - 11:00 a.m. beginning Monday, April 13th.**
- Monday pick-up will include breakfasts/lunches for Monday, Tuesday and Wednesday, and Thursday pick-up will include breakfast/lunches for Thursday, Friday, Saturday and Sunday.
- Families requiring delivery of *Grab-n-Go* breakfast and lunches need to email mfaresebrown@nps.org to make arrangements. If you do not have email capability, you can call Central Office at (508) 234-8156 and leave a voicemail with your information, and it will be passed on to Food Services to make arrangements.

Food Pantry Access:

- Pick-up of orders from our Food Pantry will be at the same days and times as breakfast/lunch pick-up (Mondays and Thursdays from 9:00 - 11:00 a.m. (beginning April 13th.)
- Families who need access to our Food Pantries should email Mrs. Ross at kross@nps.org to request items and make arrangements for pick-up.
- Families requiring delivery of Food Pantry items (due to illness, disability, lack of transportation, or other issues) also need to email Mrs. Ross **no later than** 6:00 p.m. on Thursday evening for a Monday delivery, and **no later than** 6:00 p.m. on Tuesday evening for a Thursday Food Pantry delivery. **Please include your address and phone number with your request.**
- When requesting items from the Food Pantry, please provide a list of your specific needs, so the package meets your individual family needs (** **this needs to be done on a weekly basis.**)
- If you do not have email access and need Food Pantry access, please call Central Office at (508) 234- 8156 and leave a message, and your information will be passed on to Mrs. Ross to make arrangements.

Other Important Information

End of Year Closure Items:

You will receive a document outlining end of year procedures (i.e. library book return, locker clean-out, etc.) from your building administrator over the next several weeks.

Packet Pick-Up:

Packet work is an alternative for students who do not have internet connection. If your child requires packet work please call/email respective administrators to develop plan going forward.

High School:	Tim McCormick, Principal – tmccormick@ps.org or Eric Tracey, Asst. Principal – etracey@nps.org
Middle School:	Nick Hoffman, Asst. Principal – nhoffman@nps.org or Bob O'Brien, Asst. Principal – bobrien@nps.org
Balmer Elementary:	Karlene Ross, Principal – kross@nps.org or Lauren Dolan, Asst. Principal – ldolan@nps.org
NES:	Theresa Gould, Principal – tgould@nps.org Jill Redding, EC Coordinator – jredding@nps.org

Packet Return:

Please reach out to your teacher to determine how best to turn in completed work, as they may offer multiple options, such as taking pictures of the work and emailing it; scanning it through a home copier; taking photos and uploading into Google Classroom, etc.

We are currently working on a protocol for physical packet drop off, as packets will have to be quarantined before they are given to teachers.

ChromeBooks:

As of Friday, April 17th, we have put out two surveys and conducted three days of ChromeBook distribution to families who qualified.

If anyone that received a ChromeBook experiences any problems with the ChromeBook, please contact our technology department using the contact information provided in the Technology section of this plan.

If your family did not fill out the survey, but your child needs a ChromeBook due to other devices in the home not working or other extenuating circumstances, please call Central Office at (508) 234-8156, and we will see what we can do to help.

Contact Information/Update:

All correspondence about this closure, student work, district updates, etc. will be sent out through student and staff Google accounts (nps.org), and to parent emails and phone numbers that are currently listed in iPass, through our district all-call system. **If you are NOT receiving these or any other updates, or you know someone who is not receiving these updates, please contact the secretary in your child's main office to ensure they have the appropriate email and phone numbers for your family.**

NES - Kim Bartolucci - kbartolucci@nps.org or (508) 234-6346

Balmer - Sharon Poitras - spoitras@nps.org or (508) 234-8161

NMS - Beverly Duclos - bduclos@nps.org or (508) 234-8718

NHS - Cassie Berger - cberger@nps.org or (508) 234-6221

Wellness Checks:

The Northbridge Public Schools reserve the right to request "well-child checks" be done by members of the Northbridge Police Department when students and/or their families have not been in contact with teachers, counselors or administrators for a week or more.

Our top priority during this period of pandemic is the safety and health of all of our students. As such, all of our staff members will be reaching out to students and their families to check-in, offer assistance, and just say "hello." So, please, if our staff reaches out, be sure to respond, so we know you're okay.

Parent Resources:

Please visit the **Superintendent's Web Page** on the district website (www.nps.org) often for updated information and resources to assist you and your child with the various aspects of remote learning, including:

- Written copies of all all-calls that go out to families and staff (in **Updates and Information** folder)
- Contact information for all members of the NPS faculty and staff (**Communication Flowcharts** folder)

- NPS's learning plan resource guide; Frequently Asked Questions and Answers; Special Education and Related Services resources; Speech and Language packets; suggested daily schedules and activities; and other helpful resources (***Parent Resources and Information*** folder)

Staff Resources:

Any staff that needs anything from the buildings during this closure needs to contact their building administrator to make arrangements to have the item(s) retrieved from your classroom and brought to lobby or front of building for pick-up.

** All other Staff Resources can be found in the shared drive titled **Resources and Information - School Closure**.

Glossary of Terms

Check-in – Virtual meeting that includes either audio or video connection between teacher and students to check-in on student(s) to see if they need any assistance, or just to make sure they're doing well and feel healthy.

Distance Learning Plan (SpEd) – a plan for each student on an IEP that documents the amount and types of daily or weekly interaction with teachers and service providers that should be provided during this period of remote learning.

Google Classroom - Google Classroom is a free web service, developed by Google for schools, that aims to simplify creating, distributing, and grading assignments in a paperless way. The primary purpose of Google Classroom is to streamline the process of sharing files between teachers and students.

Google Meet – A virtual meeting scheduled by a teacher through Google Calendar.

Meaningful feedback - Feedback that is directed at a specific task rather than the student's ability; feedback that encourages students to assess their own learning results; and, feedback that focuses on improving the learning process rather than performance outcomes.

Morning meeting – a (virtual) meeting with students that includes the following components: **Greeting:** Students and teachers greet and welcome each other. **Sharing:** Students share something about themselves or their lives, and the rest of their peers listen, then ask follow-up questions or offer comments. **Activity:** The group completes an activity that encourages teamwork while re-emphasizing social or academic skills. **Morning message:** Students read a short message from their teacher, usually describing what is to come in the day ahead.

Office hours - Times of the day designated by each teacher during which they are available by computer or phone to provide live support to students (i.e. answering questions, clarifying learning, re-teaching, explaining material/assignments, etc.)

Prerequisite content standards – the Massachusetts learning standards for each core content area (ELA, math, science and history/social studies) that are critical for success in the next grade.

See Saw - a platform for student engagement through which teachers can empower students to create, reflect, share, and collaborate. Students “show what they know” using photos, videos, drawings, text, PDFs, and links. It's simple to get student work in one place and share with families, and nothing is shared without teacher approval.

“Virtual” lesson – Any lesson that is conducted utilizing an online platform through which the teacher teaches a live lesson and either records it for posting, or conducts the meeting live with students logged in.

Zoom – a digital platform for video and audio conferencing with students and staff.

Massachusetts Department of Elementary and Secondary Education

Prerequisite Content Standards: Elementary Grades (K-5)

This resource is only to be used during school closure due to COVID-19. The Department identified content standards that are prerequisites for student success in the next grade level. The standards should not be used in connection with MCAS expectations or referenced in preparing students for the MCAS for any grade level. Since most standards will already have been taught prior to the closures, we anticipate that significant time would still be spent on reinforcement as an integral part of opposed to advancing new concepts.

Kindergarten

English Language Arts and Literacy

Reading Literature *and* Informational [RL/RI]

1. With prompting and support, ask and answer questions about key details in a text

Reading Literature [RL]

2. With prompting and support, retell familiar stories, including key details.
3. With prompting and support, identify characters, settings, and major events in a story.

Reading Informational [RI]

2. With prompting and support, identify the main topic and retell key details of a text.
8. With prompting and support, identify the reasons an author gives to support points in a text.

Reading Foundational Skills [RF]

1. Demonstrate understanding of the organization and basic features of print.
 - a. Follow words from left to right, top to bottom, and page by page.
 - b. Recognize that spoken words are represented in written language by specific sequences of letters.
 - c. Understand that words are separated by spaces in print.
 - d. Recognize and name all upper- and lowercase letters of the alphabet.
2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
 - a. Recognize and produce rhyming words.
 - b. Count, pronounce, blend, and segment syllables in spoken words.
 - c. Blend and segment onsets and rimes of single-syllable spoken words.
 - d. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words.¹ (This does not include CVCs ending with /l/, /r/, or /x/.)

¹ Words, syllables, or phonemes written in /slashes/ refer to their pronunciation or phonology. Thus, /CVC/ is a word with three phonemes regardless of the number of letters in the spelling of the word.

Pre-Requisite Mathematics for Success in the Following Grade

3. Know and apply grade-level phonics and word analysis skills in decoding words.
 - a. Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary sound or many of the most frequent sounds for each consonant.
 - b. Associate the long and short sounds with common spellings (graphemes) for the five major vowels.
 - c. Read common high-frequency words by sight (e.g., *the, of, to, you, she, my, is, are, do, does*).
 - d. Distinguish between similarly spelled words by identifying the sounds of the letters that differ.

Writing [W]

1. Use a combination of drawing, dictating, and writing to compose opinion pieces that tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., *My favorite book is...*).
2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts that name and supply some information about a topic.

Language [L]

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned previously.

Sentence Structure and Meaning

 - a. Demonstrate the ability to produce and expand complete sentences using frequently occurring nouns, pronouns, adjectives, verbs, question words, and prepositions; name and use in context numbers 0–100 (see kindergarten mathematics standards for Counting and Cardinality).
 - b. Form questions that seek additional information, rather than a simple *yes/no* answer.

Word Usage

 - c. Form regular plural nouns orally by adding */s/* or */es/*.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Print upper- and lowercase letters.
 - b. Capitalize the first word in a sentence and the pronoun *I*.
 - c. Recognize and name end punctuation.
 - d. Write a letter or letters for most consonant and short-vowel sounds (phonemes).
 - e. Spell simple words phonetically, drawing on knowledge of sound-letter relationships.
 - f. Write numbers 0–20 (see kindergarten mathematics standards for Counting and Cardinality).
6. Use words and phrases acquired through conversations, activities in the kindergarten curriculum, reading and being read to, and responding to texts.

Mathematics

Counting and Cardinality

K.CC

A. Know number names and the count sequence.

1. Count to 100 by ones and by tens.
2. Count forward beginning from a given number within the known sequence (instead of having to begin at one).
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).

B. Count to tell the number of objects.

4. Understand the relationship between numbers and quantities; connect counting to cardinality.
 - a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
 - b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
 - c. Understand that each successive number name refers to a quantity that is one larger. Recognize the one more pattern of counting using objects.
5. Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

C. Compare numbers.

6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group for groups with up to 10 objects, e.g., by using matching and counting strategies.
7. Compare two numbers between 1 and 10 presented as written numerals.

Operations and Algebraic Thinking

K.OA

A. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

1. Represent addition and subtraction with objects, fingers, mental images, drawings,² sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).
4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
5. Fluently add and subtract within 5, including zero.

² Drawings need not show details, but should show the mathematics in the problem.

Pre-Requisite Mathematics for Success in the Following Grade

Number and Operations in Base Ten

K.NBT

A. Work with numbers 11–19 to gain foundations for place value.

1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

Measurement and Data

K.MD

A. Describe and compare measurable attributes.

1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.

Geometry

K.G

B. Analyze, compare, create, and compose shapes.

5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

Science and Technology/Engineering

Earth and Space Sciences

K-ESS

K-ESS2-1. Use and share quantitative observations of local weather conditions to describe patterns over time.

Life Science

K-LS

K-LS1-1. Observe and communicate that animals (including humans) and plants need food, water, and air to survive. Animals get food from plants or other animals. Plants make their own food and need light to live and grow.

Physical Science

K-PS

K-PS1-1(MA). Investigate and communicate the idea that different kinds of materials can be solid or liquid depending on temperature.

K-PS2-1. Compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.

History and Social Science

Practice Standard 1: Demonstrate civic knowledge, skills, and dispositions.

Content Topic 1: Civics: classroom citizenship [K.T1]

2. Take on responsibilities and follow through on them, being helpful to and respectful of others

Pre-Requisite Mathematics for Success in the Following Grade

3. With prompting and support, give examples from literature and informational texts read or read aloud of characters who show authority, fairness, caring, justice, responsibility, or who show how rules are created and followed.
4. Ask and answer questions and explore books to gain information about national symbols, songs, and texts of the United States.

Content Topic 3: History: shared traditions [K.T3]

2. Contrast and compare traditions and celebrations of peoples with diverse cultural backgrounds.
3. Put events from their personal lives, observations of the natural world, and from stories and informational texts read or read aloud in temporal order, using words and phrases relating to chronology and time:

Pre-Requisite Mathematics for Success in the Following Grade

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Grade 1

English Language Arts and Literacy

Reading Literature *and* Informational [RL/RI]

1. Ask and answer questions about key details in a text.
10. With prompting and support, read and comprehend texts exhibiting complexity appropriate for at least grade 1.

Reading Literature [RL]

2. Retell stories, including key details, and demonstrate understanding of their central message or lesson.
3. Describe characters, settings, and major events in a story, using key details.

Reading Informational [RI]

2. Identify the main topic and retell key details of a text
3. Describe the connection between two individuals, events, ideas, or pieces of information in a text.
8. Identify the reasons an author gives to support points in a text.

Reading Foundational Skills [RF]

1. Demonstrate understanding of the organization and basic features of print.
 - a. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).
2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
 - a. Distinguish long from short vowel sounds in spoken single-syllable words.
 - b. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends.
 - c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words.
 - d. Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).
3. Know and apply grade-level phonics and word analysis skills in decoding words.
 - a. Know the spelling-sound correspondences for common consonant digraphs.
 - b. Decode regularly spelled one-syllable words.
 - c. Know final -e and common vowel team conventions for representing long vowel sounds.

Pre-Requisite Mathematics for Success in the Following Grade

- d.** Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.
- e.** Decode two-syllable words following basic patterns by breaking the words into syllables.
- f.** Read words with inflectional endings.
- g.** Recognize and read grade-appropriate irregularly spelled words.

Writing [W]

- 1.** Write opinion pieces that introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.
- 2.** Write informative/explanatory texts that name a topic, supply some facts about the topic, and provide some sense of closure.
- 4.** Produce writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Standards 1–3)

Language [L]

- 1.** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades.
Sentence Structure and Meaning
 - a.** Produce and expand simple and compound sentences.
 - b.** Demonstrate understanding that a question is a type of sentence.
 - c.** Use singular and plural nouns with matching verbs in sentences.
 - d.** Use verbs in sentences to convey a sense of past, present, and future.*Word Usage*
 - e.** Use common, proper, and possessive nouns.
 - f.** Use personal, possessive, and indefinite pronouns.
 - g.** Use frequently occurring prepositions, adjectives, adverbs, conjunctions, and articles.
- 2.** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a.** Print legibly all upper- and lowercase letters.
 - b.** Use end punctuation for sentences.
 - c.** Capitalize the names of months and people.
 - d.** Use commas in dates and to separate individual words in a series.
 - e.** Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.
 - f.** Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.
 - g.** Write numerals up to 120 (see grade 1 mathematics standards for Numbers and Operations in Base Ten); understand that numbers are also written as words; write words for numbers from one to ten.
- 6.** Use words and phrases acquired through conversations, activities in the grade 1 curriculum, reading and being read to, and responding to texts, including using frequently occurring conjunctions (e.g., *because*) to signal simple relationships.

Pre-Requisite Mathematics for Success in the Following Grade

Mathematics

Operations and Algebraic Thinking

1.OA

A. Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations (number sentences) with a symbol for the unknown number to represent the problem.³

B. Understand and apply properties of operations and the relationship between addition and subtraction.

3. Apply properties of operations to add.⁴
4. Understand subtraction as an unknown-addend problem. *For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.*

C. Add and subtract within 20.

5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use mental strategies such as counting on; making 10 (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a 10 (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).

D. Work with addition and subtraction equations.

7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.

Number and Operations in Base Ten

1.NBT

A. Extend the counting sequence.

1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

B. Understand place value.

2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
 - a. 10 can be thought of as a bundle of ten ones—called a “ten.”
 - b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
 - c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

C. Use place value understanding and properties of operations to add and subtract.

7. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings, and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

³ See Glossary, Table 1.

⁴ Students need not use formal terms for these properties.

Pre-Requisite Mathematics for Success in the Following Grade

Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Measurement and Data

1.MD

A. Measure lengths indirectly and by iterating length units.

1. Order three objects by length; compare the lengths of two objects indirectly by using a third object.
2. Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*

Geometry

1.G

A. Reason with shapes and their attributes.

1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes that possess defining attributes.

Science and Technology/Engineering

Earth and Space Sciences

1-ESS

1-ESS1-2. Analyze provided data to identify relationships among seasonal patterns of change, including relative sunrise and sunset time changes, seasonal temperature and rainfall or snowfall patterns, and seasonal changes to the environment.

Life Science

1-LS

1-LS1-1. Use evidence to explain that (a) different animals use their body parts and senses in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water, and air, and (b) plants have roots, stems, leaves, flowers, and fruits that are used to take in water, air, and other nutrients, and produce food for the plant.

Physical Science

1-PS

1-PS4-1. Demonstrate that vibrating materials can make sound and that sound can make materials vibrate.

1-PS4-3. Conduct an investigation to determine the effect of placing materials that allow light to pass through them, allow only some light through them, block all the light, or redirect light when put in the path of a beam of light.

History and Social Science

Practice Standard 1: Demonstrate civic knowledge, skills, and dispositions.

Content Topic 1: Civics: communities, elections, and leadership [1.T1]

4. Analyze examples of leadership and leaders from history, everyday life, and from literature and informational texts read or read aloud, and describe the qualities of a good leader.
5. Give examples of why members of a group who hold different views need ways to make decisions, and explain how members of a group can make fair decisions or choose leaders by voting.
6. Explain that an election is a kind of voting in which people select leaders. For example, students connect their discussion of leadership qualities to the idea of elections, listing the qualities they would look for in a candidate for election.
7. Identify some leaders who are chosen by elections (e.g., the President of the United States, the Governor of Massachusetts, the captain of a soccer team) and explain their roles.
8. Demonstrate understanding that members of a town, city, or nation in the United States are called citizens, and that their rights and responsibilities include
 - a. electing leaders who serve fixed terms
 - b. paying attention to the leader's actions, and
 - c. deciding whether or not to re-elect them on the basis of how well they have served citizens.
9. Explain that all people born in the United States are citizens, while some people become citizens after moving to the United States from another country. Understand that some residents of the United States are not citizens, but are still members of the community with rights and responsibilities.
10. Evaluate the qualities of a good citizen or member of the community, drawing on examples from history, literature, informational texts, news reports, and personal experiences.

Pre-Requisite Mathematics for Success in the Following Grade

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Grade 2

English Language Arts and Literacy

Reading Literature *and* Informational [RL/RI]

1. Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
10. Independently and proficiently read and comprehend texts exhibiting complexity appropriate for at least grade 2.

Reading Literature [RL]

2. Retell stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.
3. Describe how characters in a story respond to major events and challenges.

Reading Informational [RI]

2. Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.
3. Describe the connection between a series of historical events, scientific ideas or concepts, mathematical ideas or concepts, or steps in technical procedures in a text.
8. Describe how reasons support specific points the author makes in a text.

Reading Foundational Skills [RF]

3. Know and apply grade-level phonics and word analysis skills in decoding words.
 - a. Distinguish long and short vowels when reading regularly spelled one-syllable words.
 - b. Know spelling-sound correspondences for additional common vowel teams.
 - c. Decode regularly spelled two-syllable words with long vowels.
 - d. Decode words with common prefixes and suffixes.
 - e. Identify words with inconsistent but common spelling-sound correspondences.
 - f. Recognize and read grade-appropriate irregularly spelled words.
4. Read with sufficient accuracy and fluency to support comprehension.
 - a. Read grade-level text with purpose and understanding.
 - b. Read grade-level text orally with accuracy, appropriate rate, and expression on successive readings.
 - c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Pre-Requisite Mathematics for Success in the Following Grade

Writing [W]

1. Write opinion pieces that introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., *because, and, also*) to connect opinion and reasons, and provide a concluding statement or section.
2. Write informative/explanatory texts that introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section
4. Produce writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3)

Language [L]

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades.
Sentence Structure and Meaning
 - a. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences and choose among sentence types depending on the meaning to be conveyed.
 - b. Use adjectives and adverbs in sentences and choose between them depending on what is to be modified.
Word Usage
 - c. Use collective nouns and frequently occurring irregular plural nouns.
 - d. Use reflexive pronouns.
 - e. Form and use the past tense of frequently occurring irregular verbs.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Print upper- and lowercase letters legibly and fluently.
 - b. Capitalize holidays, product names, and geographic names.
 - c. Use commas in greetings and closings of letters.
 - d. Use an apostrophe to form contractions and frequently occurring possessives.
 - e. Generalize learned spelling patterns when writing words (e.g., *cage* → *badge*; *boy* → *boil*).
 - f. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.
 - g. Demonstrate understanding that context determines whether the writer uses a numeral or a written number (e.g., numerals in $1 + 3 = 4$, but written words in “When I was one, I was just begun, / When I was two, I was still quite new” from A. A. Milne’s poem “Now We Are Six”).
6. Use words and phrases acquired through conversations, activities in the grade 2 curriculum, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.

Mathematics

Operations and Algebraic Thinking

2.OA

A. Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.⁵

B. Add and subtract within 20.

2. Fluently add and subtract within 20 using mental strategies.⁶ By end of grade 2, know from memory all sums of two single-digit numbers and related differences.

C. Work with equal groups of objects to gain foundations for multiplication.

4. Use addition to find the total number of objects arranged in rectangular arrays with up to five rows and up to five columns; write an equation to express the total as a sum of equal addends.

Number and Operations in Base Ten

2.NBT

A. Understand place value.

1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
 - a. 100 can be thought of as a bundle of ten tens—called a “hundred.”
 - b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
2. Count within 1,000; skip-count by 5s, 10s, and 100s. Identify patterns in skip counting starting at any number.
3. Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form.

B. Use place value understanding and properties of operations to add and subtract.

5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
7. Add and subtract within 1,000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
9. Explain why addition and subtraction strategies work, using place value and the properties of operations.⁷

Measurement and Data

2.MD

A. Measure and estimate lengths in standard units.

⁵ See Glossary, Table 1.

⁶ Strategies such as counting on; making tens; decomposing a number; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.

⁷ Explanations may be supported by drawings or objects.

Pre-Requisite Mathematics for Success in the Following Grade

1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

B. Relate addition and subtraction to length.

5. Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.

Geometry

2.G

A. Reason with shapes and their attributes.

9. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.⁸ Identify triangles, squares, rectangles, rhombuses, trapezoids, pentagons, hexagons, and cubes.

Science and Technology/Engineering

Earth and Space Sciences

2-ESS

2-ESS2-4(MA). Observe how blowing wind and flowing water can move Earth materials from one place to another and change the shape of a landform.

Life Science

2-LS

2-LS4-1. Use texts, media, or local environments to observe and compare (a) different kinds of living things in an area, and (b) differences in the kinds of living things living in different types of areas.

Physical Science

2-PS

2-PS1-2. Test different materials and analyze the data obtained to determine which materials have the properties that are best suited for an intended purpose.*

2-PS3-1(MA). Design and conduct an experiment to show the effects of friction on the relative temperature and speed of objects that rub against each other.

History and Social Science

Practice Standard 1: Demonstrate civic knowledge, skills, and dispositions.

Content Topic 2: Geography and its effect on people [2.T1]

1. On a map of the world and on a globe, locate all the continents and some major physical characteristics on each continent (e.g., lakes, seas, bays, rivers and tributaries, mountains and mountain ranges, and peninsulas, deserts, plains).
2. On a map of the world and on a globe, locate the oceans of the world, and explain the importance of oceans and how they make the world habitable.

⁸ Sizes are compared directly or visually, not compared by measuring.

Pre-Requisite Mathematics for Success in the Following Grade

Content Topic 3: History: Migrations and cultures [2.T3]

1. Investigate reasons why people migrate (move) to different places around the world, recognizing that some migration is voluntary, some forced (e.g., refugees, people driven from their homelands, enslaved people)
2. Identify what individuals and families bring with them (e.g., memories, cultural traits, goods, ideas, and languages or ways of speaking) when they move to a different place and identify the significant impacts of migration; identify elements that define the culture of a society (e.g., language, literature, arts, religion, traditions, customs); explain how the community is enriched by contributions from all the people who form it today.

Content Topic 4: Civics in the context of geography: countries and governments [2.T4]

3. Locate and analyze information and present a short research report on the physical features, resources, and people of a country outside the United States.

Pre-Requisite Mathematics for Success in the Following Grade

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Grade 3

English Language Arts and Literacy

Reading Literature *and* Informational [RL/RI]

1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
10. Independently and proficiently read and comprehend texts exhibiting complexity appropriate for at least grade 3.

Reading Literature [RL]

2. Retell stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in a text.
3. Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.
4. Determine the meaning of words and phrases as they are used in a text, distinguishing literal from figurative language.

Reading Informational [RI]

2. Determine the main idea of a text; recount the key details and explain how they support the main idea.
3. Describe the relationship between a series of historical events, scientific ideas or concepts, mathematical ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect
8. Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).

Reading Foundational Skills [RF]

3. Know and apply grade-level phonics and word analysis skills in decoding words.
 - a. Identify and know the meaning of the most common prefixes and derivational suffixes.
 - b. Decode words with common Latin suffixes.
 - c. Decode multisyllable words.
 - d. Read grade-appropriate irregularly spelled words.
4. Read with sufficient accuracy and fluency to support comprehension.
 - a. Read grade-level text with purpose and understanding.

Pre-Requisite Mathematics for Success in the Following Grade

- b.** Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
- c.** Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing [W]

- 1.** Write opinion pieces on topics or texts, supporting an opinion with reasons.
 - a.** Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.
 - b.** Provide reasons that support the opinion.
 - c.** Use linking words and phrases (e.g., *because, therefore, since, for example*) to connect opinion and reasons.
 - d.** Provide a concluding statement or section.
- 2.** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
 - a.** Introduce a topic and group-related information together; include illustrations when useful to aiding comprehension.
 - b.** Develop the topic with facts, definitions, and details.
 - c.** Use linking words and phrases (e.g., *also, another, and, more, but*) to connect ideas within categories of information.
 - d.** Provide a concluding statement or section.
- 4.** Produce writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3).

Language [L]

- 1.** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades.

Sentence Structure and Meaning

 - a.** Produce, expand, and rearrange complete simple, compound, and complex sentences.
 - b.** Ensure subject-verb and pronoun-antecedent agreement.⁹
 - c.** Use verbs in the present, past, and future tenses and choose among them depending on the overall meaning of the sentence.
 - d.** Use coordinating and subordinating conjunctions and choose between them depending on the overall meaning of the sentence.
 - e.** Form and use comparative and superlative adjectives and adverbs and choose between them depending on what is to be modified and the overall meaning of the sentence.

Word Usage

 - f.** Use abstract nouns.
 - g.** Form and use regular and irregular plural nouns and the past tense of regular and irregular verbs.

⁹ These skills are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking. See the table in the pre-K–5 resource section in this Framework.

Pre-Requisite Mathematics for Success in the Following Grade

2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Write legibly and fluently by hand, using either printing or cursive handwriting.
 - b. Capitalize appropriate words in titles.
 - c. Use commas in addresses.
 - d. Use commas and quotation marks in dialogue.
 - e. Form and use possessives.
 - f. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., *sitting*, *smiled*, *cries*, *happiness*).
 - g. Demonstrate understanding that numerals used at the beginning of a sentence are written as words and capitalized (e.g., “Three pandas could be seen eating leaves high in the bamboo grove.”).
 - h. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words.
 - i. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.
6. Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases,⁸ including those that signal spatial and temporal relationships.

Mathematics

Operations and Algebraic Thinking

3.OA

A. Represent and solve problems involving multiplication and division.

1. Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in five groups of seven objects each.
2. Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each.
3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.¹⁰
4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers.

B. Understand properties of multiplication and the relationship between multiplication and division.

5. Apply properties of operations to multiply.¹¹
6. Understand division as an unknown-factor problem.

C. Multiply and divide within 100.

7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of

¹⁰ See Glossary, Table 2.

¹¹ Students need not use formal terms for these properties. Students are not expected to use distributive notation.

Pre-Requisite Mathematics for Success in the Following Grade

operations. By the end of grade 3, know from memory all products of two single-digit numbers and related division facts.

Number and Operations in Base Ten

3.NBT

A. Use place value understanding and properties of operations to perform multi-digit arithmetic.

¹²

2. Fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3. Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations.

Number and Operations—Fractions

3.NF

A. Develop understanding of fractions as numbers for fractions with denominators 2, 3, 4, 6, and 8.

1. Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole (a single unit) is partitioned into b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$.
2. Understand a fraction as a number on the number line; represent fractions on a number line diagram.
 - a. Represent a unit fraction, $\frac{1}{b}$, on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $\frac{1}{b}$ and that the fraction $\frac{1}{b}$ is located $\frac{1}{b}$ of a whole unit from 0 on the number line.
 - b. Represent a fraction $\frac{a}{b}$ on a number line diagram by marking off a lengths $\frac{1}{b}$ from 0. Recognize that the resulting interval has size $\frac{a}{b}$ and that its endpoint locates the number $\frac{a}{b}$ on the number line.
3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
 - a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
 - b. Recognize and generate simple equivalent fractions, e.g., $\frac{1}{2} = \frac{2}{4}$, $\frac{4}{6} = \frac{2}{3}$. Explain why the fractions are equivalent, e.g., by using a visual fraction model.
 - c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.
 - d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.

Measurement and Data

3.MD

C. Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

7. Relate area to the operations of multiplication and addition.

¹² A range of algorithms may be used.

Pre-Requisite Mathematics for Success in the Following Grade

- a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
- b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
- c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.
- d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems.

Geometry

3.G

A. Reason with shapes and their attributes.

1. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Compare and classify shapes by their sides and angles (right angle/non-right angle). Recognize rhombuses, rectangles, squares, and trapezoids as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

Science and Technology/Engineering

Earth and Space Sciences

3-ESS

3-ESS2-2. Obtain and summarize information about the climate of different regions of the world to illustrate that typical weather conditions over a year vary by region.

Life Science

3-LS

3-LS3-1. Provide evidence, including through the analysis of data, that plants and animals have traits inherited from parents and that variation of these traits exist in a group of similar organisms.

3-LS4-2. Use evidence to construct an explanation for how the variations in characteristics among individuals within the same species may provide advantages to these individuals in their survival and reproduction.

Physical Science

3-PS

3-PS2-1. Provide evidence to explain the effect of multiple forces, including friction, on an object. Include balanced forces that do not change the motion of the object and unbalanced forces that do change the motion of the object.

History and Social Science

Practice Standard 3: Organize information from multiple sources

Teachers are encouraged to prioritize Content Standards not yet introduced, and to apply them in connection with Practice Standard 3. Content Standards from Topics 5 and 6 are identified here with the assumption that earlier Topics were introduced earlier in the year.

Content Topic 5: The Puritans, the Massachusetts Bay Colony, Native Peoples, and Africans [3.T5]

4. Explain that in the 17th and 18th century slavery was legal in all the French, Dutch, and Spanish, and English colonies, including Massachusetts and that colonial Massachusetts had both free and enslaved Africans in its population.

Content Topic 6: Massachusetts in the 18th century through the American Revolution [3.T6]

2. Analyze the connection between events, locations, and individuals in Massachusetts in the early 1770s and the beginning of the American Revolution, using sources such as historical maps, paintings, and texts of the period.
4. Explain how, after the Revolution, the leaders of the new United States had to write a plan for how to govern the nation, and that this plan is called the Constitution. Explain that the rights of citizens are spelled out in the Constitution's first ten Amendments, known as the Bill of Rights; explain that full citizenship rights were restricted to white male property owners over the age of 21 in the new Republic.

Pre-Requisite Mathematics for Success in the Following Grade

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Grade 4

English Language Arts and Literacy

Reading Literature *and* Informational [RL/RI]

1. Refer to details and examples in a text when explaining what the text states explicitly and when drawing inferences from the text.
10. Independently and proficiently read and comprehend texts exhibiting complexity appropriate for at least grade 4.

Reading Literature [RL]

2. Determine a theme of a story, drama, or poem from details in the text; summarize a text.
3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).
4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean); explain how figurative language (e.g., simile, metaphor) enriches a text.

Reading Informational [RI]

2. Determine the main idea of a text and explain how it is supported by key details; summarize a text.
3. Explain events, procedures, ideas, or concepts in a historical, scientific, mathematical, or technical text, including what happened and why, based on specific information in the text.
8. Explain how an author uses reasons and evidence to support particular points in a text.

Reading Foundational Skills [RF]

3. Know and apply grade-level phonics and word analysis skills in decoding words.
 - a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
4. Read with sufficient accuracy and fluency to support comprehension.
 - a. Read grade-level text with purpose and understanding.
 - b. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
 - c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Pre-Requisite Mathematics for Success in the Following Grade

Writing [W]

1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
 - a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped in paragraphs and sections to support the writer's purpose.
 - b. Provide reasons that are supported by facts and details.
 - c. Link opinion and reasons using words and phrases (e.g., *for instance, in order to, in addition*).
 - d. Provide a concluding statement or section related to the opinion presented.
2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
 - a. Introduce a topic clearly and group related information in paragraphs and sections; include text features (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
 - b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
 - c. Link ideas within categories of information using words and phrases (e.g., *another, for example, also, because*).
 - d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
 - e. Provide a concluding statement or section related to the information or explanation presented.
4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3)

Language [L]

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. (See grade 4 Writing Standard 5 and Speaking and Listening Standard 6 on strengthening writing and presentations by applying knowledge of conventions.)

Sentence Structure and Meaning

 - a. Produce complete sentences, using knowledge of subject and predicate to recognize and correct inappropriate sentence fragments and run-on sentences.¹³
 - b. Correctly use frequently confused words (e.g., *their/there*).
 - c. Use helping verbs, also known as auxiliaries (e.g., *can, may, might, should*), to convey various conditions of possibility, likelihood, obligation, or permission, choosing among helping verbs depending on the overall meaning of the sentence.
 - d. Use relative pronouns and relative adverbs to add more information about a noun or verb used in a sentence.

¹³ These skills are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking. See the table in the pre-K–5 resource section in this Framework.

Pre-Requisite Mathematics for Success in the Following Grade

- e. Form and use prepositional phrases in sentences to add more information about qualities such as location, time, agency, and direction.

Word Usage

- f. Form and use progressive verb tenses.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Write legibly and fluently by hand, using either printing or cursive handwriting; write their given name signature in cursive.
 - b. Use correct capitalization.
 - c. Use commas and quotation marks to mark direct speech and quotations from a text.
 - d. Use a comma before a coordinating conjunction in a compound sentence.
 - e. Spell grade-appropriate words correctly, consulting references as needed.
 6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., *quizzed*, *whined*, *stammered*) and that are basic to a particular topic

Mathematics

Operations and Algebraic Thinking

4.OA

A. Use the four operations with whole numbers to solve problems.

2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.¹⁴
3. Solve multi-step word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
 - a. Know multiplication facts and related division facts through 12 x 12.

Number and Operations in Base Ten

4.NBT

A. Generalize place value understanding for multi-digit whole numbers less than or equal to 1,000,000.

2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.

B. Use place value understanding and properties of operations to perform multi-digit arithmetic on whole numbers less than or equal to 1,000,000.

4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.
5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations.

¹⁴ See Glossary, Table 2.

Pre-Requisite Mathematics for Success in the Following Grade

Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Number and Operations—Fractions

4.NF

A. Extend understanding of fraction equivalence and ordering for fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.

1. Explain why a fraction $\frac{a}{b}$ is equivalent to a fraction $\frac{(n \times a)}{(n \times b)}$ by using visual fraction models, with attention to how the numbers and sizes of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions, including fractions greater than 1.
2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.

B. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers for fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.

3. Understand a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$.
 - a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. (The whole can be a set of objects.)
 - b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using drawings or visual fraction models. *Examples:* $\frac{3}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$; $\frac{3}{8} = \frac{1}{8} + \frac{2}{8}$; $2\frac{1}{8} = 1 + 1 + \frac{1}{8} = \frac{8}{8} + \frac{8}{8} + \frac{1}{8}$.
 - c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
 - d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using drawings or visual fraction models and equations to represent the problem.

C. Understand decimal notation for fractions, and compare decimal fractions.

5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.¹⁵
6. Use decimal notation to represent fractions with denominators 10 or 100.
7. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.

¹⁵ Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But addition and subtraction with unlike denominators in general is not a requirement at this grade.

Measurement and Data

4.MD

A. Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

1. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.
2. Apply the area and perimeter formulas for rectangles in real-world and mathematical problems.

Geometry

4.G

A. Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Science and Technology/Engineering

Earth and Space Sciences

4-ESS

4-ESS2-1. Make observations and collect data to provide evidence that rocks, soils, and sediments are broken into smaller pieces through mechanical weathering and moved around through erosion.

Life Science

4-LS

4-LS1-1. Construct an argument that animals and plants have internal and external structures that support their survival, growth, behavior, and reproduction.

Physical Science

4-PS

4-PS3-2. Make observations to show that energy can be transferred from place to place by sound, light, heat, and electric currents.

4-PS4-2. Develop a model to describe that light must reflect off an object and enter the eye for the object to be seen.

History and Social Science

Practice Standard 3: Organize information from multiple sources

Teachers are encouraged to prioritize Content Standards not yet introduced, and to apply them in connection with Practice Standard 3. Content Standards from Topic 4 are identified here with the assumption that earlier Topics were introduced earlier in the year.

Content Topic 4: The Expansion of the United States over time and its regions today [4.T4]

3. Explain that many different groups of people immigrated to the United States from other places voluntarily and some were brought to the United States against their will (as in the case of people of Africa).
4. Show understanding that in the middle of the 19th century, the people of the United States were deeply divided over the question of slavery and its expansion into newly settled parts of the West, which led to the Civil War from 1861 to 1865.

Content Topic 4a: The Northeast [4.T4a]

1. On a political map of the United States, locate the states in the Northeast.
5. Describe the diverse cultural nature of the region, including contributions of Native Peoples (e.g., Wampanoag, Iroquois, Abenaki), Africans, Europeans (e.g., the early settlements of the Dutch in New York, French near Canada, Germans in Pennsylvania, the English in Massachusetts, Rhode Island, Connecticut, Vermont and New Hampshire, subsequent 19th and early 20th century immigration by groups such as Irish, Italian, Portuguese, and Eastern Europeans) and various other immigrant groups from other regions of the world in the later 20th and 21st centuries (e.g., Puerto Ricans, Dominicans, Mexicans, Salvadorans, Colombians, Guatemalans, Brazilians, Haitians, Vietnamese, Cambodians, Chinese, Indians, and Somalis).

The Southeast, Midwest, Southwest, and West [4.T4b-e]

1. On a political map of the United States, locate the states in the Southeast, Midwest, Southwest, and West.
5. Describe the diverse cultural nature of the region.

Pre-Requisite Mathematics for Success in the Following Grade

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Grade 5

English Language Arts and Literacy

Reading Literature *and* Informational [RL/RI]

1. Quote or paraphrase a text accurately when explaining what the text states explicitly and when drawing inferences from the text. (See grade 5 Writing Standard 8 for more on paraphrasing.)
10. Independently and proficiently read and comprehend texts exhibiting complexity appropriate for at least grade 5.

Reading Literature [RL]

2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize a text.
3. Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).
4. Determine the meaning of words and phrases as they are used in a text; identify and explain the effects of figurative language such as metaphors and similes.

Reading Informational [RI]

2. Determine one or more main ideas of a text and explain how they are supported by key details; summarize a text.
3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, mathematical, or technical text based on specific information in the text.
8. Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).

Reading Foundational Skills [RF]

3. Know and apply grade-level phonics and word analysis skills in decoding words.
 - a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
4. Read with sufficient accuracy and fluency to support comprehension.
 - a. Read grade-level text with purpose and understanding.

Pre-Requisite Mathematics for Success in the Following Grade

- b.** Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
- c.** Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing [W]

- 1.** Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
 - a.** Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped in paragraphs and sections to support the writer's purpose.
 - b.** Provide logically ordered reasons that are supported by facts and details.
 - c.** Link opinion and reasons using words, phrases, and clauses (e.g., *consequently*, *specifically*).
 - d.** Provide a concluding statement or section related to the opinion presented.
- 2.** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
 - a.** Introduce a topic clearly, provide a general observation and focus, and group related information logically in paragraphs and sections; include text features (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
 - b.** Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
 - c.** Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast*, *especially*).
 - d.** Use precise language and domain-specific vocabulary to inform about or explain the topic.
 - e.** Provide a concluding statement or section related to the information or explanation presented.
- 4.** Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Standards 1–3.)
- 8.** Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.

Language [L]

- 1.** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. (See grade 5 Writing Standard 5 and Speaking and Listening Standard 6 on strengthening writing and presentations by applying knowledge of conventions.)

Sentence Structure and Meaning

 - a.** Use verb tense to convey various times, sequences, states, and conditions, choosing among verb tenses depending on the overall meaning of the sentence.

Pre-Requisite Mathematics for Success in the Following Grade

- b. Recognize and correct inappropriate shifts in verb tense.¹⁶
- c. Use active and passive verbs, choosing between them depending on the overall meaning of the sentence.

Word Usage

- d. Form and use perfect verb tenses.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- a. Write legibly and fluently by hand, using either print or cursive handwriting; write their given and family name signature in cursive.
 - b. Use punctuation to separate items in a series.¹⁷
 - c. Use a comma to separate an introductory element from the rest of the sentence.
 - d. Use a comma to set off the words *yes* and *no* (e.g., *Yes, thank you*), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*).
 - e. Use underlining, quotation marks, or italics to indicate titles of works.
 - f. Spell grade-appropriate words correctly, consulting references as needed.
6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however, although, nevertheless, similarly, moreover, in addition*).

Mathematics

Number and Operations in Base Ten

5.NBT

A. Understand the place value system.

- 1. Recognize that in a multi-digit number, including decimals, a digit in any place represents 10 times as much as it represents in the place to its right and $\frac{1}{10}$ of what it represents in the place to its left.
- 3. Read, write, and compare decimals to thousandths.
 - a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g.,
 $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (\frac{1}{10}) + 9 \times (\frac{1}{100}) + 2 \times (\frac{1}{1000})$.
 - b. Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.

B. Perform operations with multi-digit whole numbers and with decimals to hundredths.

- 5. Fluently multiply multi-digit whole numbers. (Include two-digit \times four-digit numbers and, three-digit \times three-digit numbers) using the standard algorithm.
- 6. Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

¹⁶ These skills are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking. See the table in the pre-K–5 resource section in this Framework.

¹⁷ These skills are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking. See the table in the pre-K–5 resource section in this Framework.

Pre-Requisite Mathematics for Success in the Following Grade

7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction and between multiplication and division; relate the strategy to a written method and explain the reasoning used.

Number and Operations—Fractions

5.NF

A. Use equivalent fractions as a strategy to add and subtract fractions.

1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators.
2. Solve word problems involving addition and subtraction of fractions referring to the same whole (the whole can be a set of objects), including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.

B. Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

3. Interpret a fraction as division of the numerator by the denominator ($\frac{a}{b} = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
 - a. Interpret the product $\frac{a}{b} \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$.
 - b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
5. Interpret multiplication as scaling (resizing), by:
 - a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.
 - b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $\frac{a}{b} = \frac{n \times a}{n \times b}$ to the effect of multiplying $\frac{a}{b}$ by 1.
6. Solve real-world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

Measurement and Data

5.MD

C. Geometric measurement: Understand concepts of volume and relate volume to multiplication and to addition.

3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement.

Pre-Requisite Mathematics for Success in the Following Grade

- a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume.
- b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.

Geometry

5.G

B. Classify two-dimensional figures into categories based on their properties.

3. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.
4. Classify two-dimensional figures in a hierarchy based on properties.

Science and Technology/Engineering

Earth and Space Sciences

5-ESS

5-ESS1-2. Use a model to communicate Earth’s relationship to the Sun, Moon, and other stars that explain (a) why people on Earth experience day and night, (b) patterns in daily changes in length and direction of shadows over a day, and (c) changes in the apparent position of the Sun, Moon, and stars at different times during a day, over a month, and over a year.

5-ESS2-1. Use a model to describe the cycling of water through a watershed through evaporation, precipitation, absorption, surface runoff, and condensation.

Life Science

5-LS

5-LS1-1. Ask testable questions about the process by which plants use air, water, and energy from sunlight to produce sugars and plant materials needed for growth and reproduction.

5-LS2-1. Develop a model to describe the movement of matter among producers, consumers, decomposers, and the air, water, and soil in the environment to (a) show that plants produce sugars and plant materials, (b) show that animals can eat plants and/or other animals for food, and (c) show that some organisms, including fungi and bacteria, break down dead organisms and recycle some materials back to the air and soil.

Physical Science

5-PS

5-PS1-1. Use a particle model of matter to explain common phenomena involving gases, and phase changes between gas and liquid and between liquid and solid.

History and Social Science

Practice Standard 3: Organize information from multiple sources

Teachers are encouraged to prioritize Content Standards not yet introduced, and to apply them in connection with Practice Standard 3. Content Standards from Topic 5 are identified here with the assumption that earlier Topics were introduced earlier in the year. It is critical students learn about the historical significance and lasting impact of slavery on our nation through effective instruction, which approaches the content consciously, critically, and carefully, with attention paid to context and point of view.

Content Topic 5: Slavery, the legacy of the Civil War and the struggle for civil rights for all [5.T5]

2. Identify the major reasons for the Civil War (e.g., slavery, political and economic competition in Western territories, the emergence of the Republican Party) and the war's most important outcomes (e.g., end of slavery, Reconstruction, expanded role of the federal government, industrial growth in the North).
3. Explain the ideas and roles of some of the people of the pre-Civil War era who led the struggle against slavery (abolitionism) and for voting and property rights for African Americans (e.g., Harriet Tubman, Nat Turner, Sojourner Truth, Frederick Douglass, William Lloyd Garrison, Harriet Beecher Stowe).
7. Explain the consequences of the Emancipation Proclamation and the 13th, 14th, and 15th Amendments for the rights of African Americans. a. advocacy for women's rights surrounding the passage of the 14th and 15th Amendments and its relationship to the later movement for women's rights b. women's attainment of the right to vote with the passage of the 19th Amendment of 1920
8. Describe living conditions for African Americans following the Civil War, during the Jim Crow era, including limited educational and economic opportunities, separate public facilities (e.g., segregated schools and colleges, neighborhoods, sections in buses, trains, restaurants, and movie theaters), the organized perpetuation of white supremacist beliefs and the threat of violence from extra-legal groups such as the Ku Klux Klan. Describe the role African American churches, civic organizations, and newspapers played in supporting and unifying African American communities. Research and analyze one of the people, organizations, events, or legislative acts from the 20th century that contributed to expanding civil rights of African Americans, women, and others in the United States.
9. Explain how the 20th century African American Civil Rights movement served as a model for other movements for civil rights (e.g., the second phase of the women's movement in the 1960s and 1970s, the disability rights movement, the LGBTQ movement).

Massachusetts Department of Elementary and Secondary Education

Prerequisite Content Standards: Secondary Grades (6-12)

This resource is only to be used during school closure due to COVID-19. The Department identified content standards that are prerequisites for student success in the next grade level. The standards should not be used in connection with MCAS expectations or referenced in preparing students for the MCAS for any grade level. Since most standards will already have been taught prior to the closures, we anticipate that significant time would still be spent on reinforcement as an integral part of opposed to advancing new concepts.

Secondary Grades (6-12)

English Language Arts and Literacy

Grade 6

Reading Literature [RL]

1. Cite textual evidence to support analysis of what a text states explicitly as well as inferences drawn from the text, quoting or paraphrasing as appropriate. (See grade 6 Writing Standard 8 for more on quoting and paraphrasing.)
2. Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of a text distinct from personal opinions or judgments.
4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; explain how word choice affects meaning and tone. (See grade 6 Language standards 4-6 on applying knowledge of vocabulary to reading.)

Reading Informational Text [RI]

1. Cite textual evidence to support analysis of what a text states explicitly as well as inferences drawn from the text, quoting or paraphrasing as appropriate. (See grade 6 Writing Standard 8 for more on quoting and paraphrasing.)
2. Determine a text's central idea(s) and how particular details help convey the idea(s); provide a summary of a text distinct from personal opinions or judgments.
8. Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not
10. Independently and proficiently read and comprehend literature **and** literary nonfiction representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 6.

Pre-Requisite Content Standards for Success in the Following Grade

Writing [W]

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Standards 1–3 above.)
9. Draw evidence from literary or informational texts to support written analysis, interpretation, reflection, and research, applying one or more grade 6 standards for Reading Literature or Reading Informational Text as needed.

Language [L]

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. (See grade 6 Writing Standard 5 and Speaking and Listening Standard 6 on strengthening writing and presentations by applying knowledge of conventions.)

Sentence Structure, Variety, and Meaning

- a. Use simple, compound, complex, and compound-complex sentences to communicate ideas clearly and to add variety to writing.
 - b. Explain the function of phrases and clauses in general, how phrases and clauses differ, and how their use conveys a particular meaning in a specific written or spoken sentence.
 - c. Place or rearrange phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements
 - b. Spell correctly, recognizing that some words have commonly accepted variations (e.g., donut/doughnut).

Grade 7

Reading Literature [RL]

1. Cite several pieces of textual evidence to support analysis of what a text states explicitly as well as inferences drawn from the text, quoting or paraphrasing as appropriate. (See grade 7 Writing Standard 8 for more on quoting and paraphrasing.)
2. Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of a text.
4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning, tone, or mood, including the impact of repeated use of particular images. (See grade 7 Language Standards 4–6 on applying knowledge of vocabulary to reading.)

Pre-Requisite Content Standards for Success in the Following Grade

Reading Informational Text [RI]

1. Cite several pieces of textual evidence to support analysis of what a text states explicitly as well as inferences drawn from the text, quoting or paraphrasing as appropriate. (See grade 7 Writing Standard 8 for more on quoting and paraphrasing.)
2. Determine a text's central idea(s) and analyze its/their development over the course of the text; provide an objective summary of a text.
8. Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.
10. Independently and proficiently read and comprehend literature **and** literary nonfiction representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 7.

Writing [W]

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3.)
9. Draw evidence from literary or informational texts to support written analysis, interpretation, reflection, and research, applying one or more grade 7 Standards for Reading Literature or Reading Informational Text as needed.

Language [L]

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. (See grade 7 Writing Standard 5 and Speaking and Listening Standard 6 on strengthening writing and presentations by applying knowledge of conventions.)
Sentence Structure, Variety, and Meaning
 - a. Use phrases and clauses to communicate ideas precisely, with attention to skillful use of verb tenses to add clarity.
 - b. Recognize and correct vague pronouns (those that have unclear or ambiguous antecedents).¹⁷
 - c. Recognize and correct inappropriate shifts in pronoun number and person in sentences with multiple clauses and phrases.
 - d. Recognize that changing the placement of a phrase or clause can add variety, emphasize particular relationships among ideas, or alter the meaning of a sentence or paragraph.¹⁷
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Use a comma to separate coordinate adjectives (e.g., *a fascinating, enjoyable movie*).
 - b. Spell correctly, recognizing that some words have commonly accepted variations (e.g., donut/doughnut).

Grade 8

Reading Literature [RL]

1. Cite the textual evidence that most strongly supports analysis of what a text states explicitly as well as inferences drawn from the text, quoting or paraphrasing as appropriate. (See grade 8 Writing Standard 8 for more on quoting and paraphrasing.)
2. Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of a text
4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning, tone, or mood, including the impact of allusion and irony. (See grade 8 Language Standards 4–6 on applying knowledge of vocabulary to reading.)

Reading Informational Text [RI]

1. Cite the textual evidence that most strongly supports an analysis of what a text states explicitly as well as inferences drawn from the text, quoting or paraphrasing as appropriate. (See grade 8 Writing Standard 8 for more on quoting and paraphrasing.)
2. Determine a text’s central idea(s) and analyze its/their development over the course of the text, including relationships to supporting ideas; provide an objective summary of a text.
8. Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.
10. Independently and proficiently read and comprehend literature **and** literary nonfiction representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 8.

Writing [W]

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
9. Draw evidence from literary or informational texts to support written analysis, interpretation, reflection, and research, applying one or more grade 8 standards for Reading Literature or Reading Informational Text as needed.

Language [L]

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. (See grade 8 Writing Standard 5 and Speaking and Listening Standard 6 on strengthening writing and presentations by applying knowledge of conventions.)
Sentence Structure, Variety, and Meaning

Pre-Requisite Content Standards for Success in the Following Grade

- a. Coordinate phrases and clauses in simple, compound, complex, and compound-complex sentences, with emphasis on agreement of pronouns and their antecedents.
 - b. Form and use verbs in the active and passive voices and the indicative, imperative, interrogative, conditional, and subjunctive moods to communicate a particular meaning.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Use punctuation (comma, ellipsis, dash) to indicate a pause or break.
 - b. Use an ellipsis to indicate an omission. Spell correctly, recognizing that some words have commonly accepted variations (e.g., donut/doughnut).

Grades 9-10

Reading Literature [RL]

1. Cite strong and thorough textual evidence to support analysis of what a text states explicitly as well as inferences drawn from the text.
2. Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of a text.
4. Determine the figurative or connotative meaning(s) of words and phrases as they are used in a text; analyze the impact of words with multiple meanings, as well as symbols or metaphors that extend throughout a text and shape its meaning. (See grades 9–10 Language Standards 4–6 on applying knowledge of vocabulary to reading.)

Reading Informational Text [RI]

1. Cite strong and thorough textual evidence to support analysis of what a text states explicitly as well as inferences drawn from the text.
2. Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of a text.
8. Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements or incomplete truths and fallacious reasoning.
10. Independently and proficiently read and comprehend **literary texts** and **literary nonfiction** representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for the grade/course.

Writing [W]

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Standards 1–3 above.)
9. Draw evidence from literary or informational texts to support written analysis, interpretation, reflection, and research, applying one or more grades 9–10 Standards for Reading Literature or Reading Informational Text as needed.

Pre-Requisite Content Standards for Success in the Following Grade

Language [L]

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. (See grades 9–10 Writing Standard 5 and Speaking and Listening Standard 6 on strengthening writing and presentations by applying knowledge of conventions.)
Sentence Structure, Variety, and Meaning
 - a. Manipulate and rearrange clauses and phrases in sentences, paying attention to agreements of pronouns and their antecedents, logical use of verb tenses, and variety in sentence patterns.
 - b. Use various types of phrases (noun, verb, adjectival, participial, prepositional) and clauses (independent, dependent, noun, relative, adverbial) to convey specific meanings and add variety and interest to writing or presentations.
 - c. Use parallel structure as a technique for creating coherence in sentences, paragraphs, and larger pieces of writing.¹⁹
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.
 - b. Use a colon to introduce a list or quotation.
 - c. Spell correctly, recognizing that some words have commonly accepted variations (e.g., catalog/catalogue).

Grades 11-12

Reading Literature [RL]

1. Cite strong and thorough textual evidence to support analysis of what a text states explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.
2. Determine two or more themes or central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to produce a complex account; provide an objective summary of a text.
4. Determine the figurative or connotative meaning(s) of words and phrases as they are used in a text; analyze the impact of specific words or rhetorical patterns (e.g., how the language evokes a sense of time and place, how shifts in rhetorical patterns signal new perspectives). (See grades 11–12 Language Standards 4–6 on applying knowledge of vocabulary to reading.)

Reading Informational Text [RI]

1. Cite strong and thorough textual evidence to support analysis of what a text states explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.

Pre-Requisite Content Standards for Success in the Following Grade

2. Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis; provide an objective summary of a text.
8. Delineate and evaluate the reasoning in seminal historical texts, including the application of constitutional principles and use of legal reasoning (e.g., in U.S. Supreme Court majority opinions and dissents) and the premises, purposes, and arguments in works of public advocacy (e.g., *The Federalist*, presidential addresses).
10. Independently and proficiently read and comprehend **literary texts** and **literary nonfiction** representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for the grade/course.

Writing [W]

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)
9. Draw evidence from literary or informational texts to support written analysis, interpretation, reflection, and research, applying one or more grades 11–12 standards for Reading Literature or Reading Informational Text as needed.

Language [L]

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades. (See grades 11–12 Writing Standard 5 and Speaking and Listening Standard 6 on strengthening writing and presentations by applying knowledge of conventions.)
Word Usage
 - a. Apply the understanding that usage is a matter of convention, can change over time, and is sometimes contested.
 - b. Resolve issues of complex or contested usage, consulting references (e.g., *Merriam-Webster's Dictionary of English Usage*, *Garner's Modern American Usage*) as needed.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - a. Observe hyphenation conventions.
 - b. Spell correctly, recognizing that some words have commonly accepted variations (e.g., catalog/catalogue).

Science and Technology/Engineering

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Grade 6

Earth and Space Sciences

6.MS-ESS

6.MS-ESS1-1a. Develop and use a model of the Earth-Sun-Moon system to explain the causes of lunar phases and eclipses of the Sun and Moon.

6.MS-ESS2-3. Analyze and interpret maps showing the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence that Earth's plates have moved great distances, collided, and spread apart.

Life Science

6.MS-LS

6.MS-LS1-2. Develop and use a model to describe how parts of cells contribute to the cellular functions of obtaining food, water, and other nutrients from its environment, disposing of wastes, and providing energy for cellular processes.

6.MS-LS1-3. Construct an argument supported by evidence that the body systems interact to carry out essential functions of life.

Physical Science

6.MS-PS

6.MS-PS1-7(MA). Use a particulate model of matter to explain that density is the amount of matter (mass) in a given volume. Apply proportional reasoning to describe, calculate, and compare relative densities of different materials.

6.MS-PS4-2. Use diagrams and other models to show that both light rays and mechanical waves are reflected, absorbed, or transmitted through various materials.

Technology/Engineering

6.MS-ETS

6.MS-ETS1-1. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution. Include potential impacts on people and the natural environment that may limit possible solutions.*

Pre-Requisite Content Standards for Success in the Following Grade

Grade 7

Earth and Space Sciences

7.MS-ESS

7.MS-ESS2-2. Construct an explanation based on evidence for how Earth's surface has changed over scales that range from local to global in size.

Life Science

7.MS-LS

7.MS-LS2-3. Develop a model to describe that matter and energy are transferred among living and nonliving parts of an ecosystem and that both matter and energy are conserved through these processes.

Physical Science

7.MS-PS

7.MS-PS2-5. Use scientific evidence to argue that fields exist between objects with mass, between magnetic objects, and between electrically charged objects that exert force on each other even though the objects are not in contact.

7.MS-PS3-3. Apply scientific principles of energy and heat transfer to design, construct, and test a device to minimize or maximize thermal energy transfer.*

7.MS-PS3-7(MA). Use informational text to describe the relationship between kinetic and potential energy and illustrate conversions from one form to another.

Technology/Engineering

7.MS-ETS

7.MS-ETS1-2. Evaluate competing solutions to a given design problem using a decision matrix to determine how well each meets the criteria and constraints of the problem. Use a model of each solution to evaluate how variations in one or more design features, including size, shape, weight, or cost, may affect the function or effectiveness of the solution.*

Grade 8

Earth and Space Sciences

8.MS-ESS

8.MS-ESS1-1b. Develop and use a model of the Earth-Sun system to explain the cyclical pattern of seasons, which includes Earth's tilt and differential intensity of sunlight on different areas of Earth across the year.

8.MS-ESS2-1. Use a model to illustrate that energy from Earth's interior drives convection that cycles Earth's crust, leading to melting, crystallization, weathering, and deformation of large rock formations, including generation of ocean sea floor at ridges, submergence of ocean sea floor at trenches, mountain building, and active volcanic chains.

8.MS-ESS3-5. Examine and interpret data to describe the role that human activities have played in causing the rise in global temperatures over the past century.

Pre-Requisite Content Standards for Success in the Following Grade

Life Science

8.MS-LS

8.MS-LS1-7. Use informational text to describe that food molecules, including carbohydrates, proteins, and fats, are broken down and rearranged through chemical reactions forming new molecules that support cell growth and/or release of energy.

8.MS-LS3-1. Develop and use a model to describe that structural changes to genes (mutations) may or may not result in changes to proteins, and if there are changes to proteins there may be harmful, beneficial, or neutral changes to traits.

8.MS-LS4-4. Use a model to describe the process of natural selection, in which genetic variations of some traits in a population increase some individuals' likelihood of surviving and reproducing in a changing environment. Provide evidence that natural selection occurs over many generations.

Physical Science

8.MS-PS

8.MS-PS1-4. Develop a model that describes and predicts changes in particle motion, relative spatial arrangement, temperature, and state of a pure substance when thermal energy is added or removed.

8.MS-PS2-2. Provide evidence that the change in an object's speed depends on the sum of the forces on the object (the net force) and the mass of the object.

High School Biology

LS1. From Molecules to Organisms: Structures and Processes

HS-LS1-1. Construct a model of transcription and translation to explain the roles of DNA and RNA that code for proteins that regulate and carry out essential functions of life.

HS-LS1-2. Develop and use a model to illustrate the key functions of animal body systems, including (a) food digestion, nutrient uptake, and transport through the body; (b) exchange of oxygen and carbon dioxide; (c) removal of wastes; and (d) regulation of body processes.

LS2. Ecosystems: Interactions, Energy, and Dynamics

HS-LS2-5. Use a model that illustrates the roles of photosynthesis, cellular respiration, decomposition, and combustion to explain the cycling of carbon in its various forms among the biosphere, atmosphere, hydrosphere, and geosphere.

HS-LS2-7. Analyze direct and indirect effects of human activities on biodiversity and ecosystem health, specifically habitat fragmentation, introduction of non-native or invasive species, overharvesting, pollution, and climate change. Evaluate and refine a solution for reducing the impacts of human activities on biodiversity and ecosystem health.*

LS3. Heredity: Inheritance and Variation of Traits

HS-LS3-1. Develop and use a model to show how DNA in the form of chromosomes is passed from parents to offspring through the processes of meiosis and fertilization in sexual reproduction. **HS-LS3-3.** Apply concepts of probability to represent possible genotype and phenotype combinations in offspring caused by different types of Mendelian inheritance patterns.

LS4. Biological Evolution: Unity and Diversity

HS-LS4-4. Research and communicate information about key features of viruses and bacteria to explain their ability to adapt and reproduce in a wide variety of environments.

Pre-Requisite Content Standards for Success in the Following Grade

HS-LS4-5. Evaluate models that demonstrate how changes in an environment may result in the evolution of a population of a given species, the emergence of new species over generations, or the extinction of other species due to the processes of genetic drift, gene flow, mutation, and natural selection.

High School Chemistry

PS1. Matter and Its Interactions

HS-PS1-2. Use the periodic table model to predict and design simple reactions that result in two main classes of binary compounds, ionic and molecular. Develop an explanation based on given observational data and the electronegativity model about the relative strengths of ionic or covalent bonds.

HS-PS1-4. Develop a model to illustrate the energy transferred during an exothermic or endothermic chemical reaction based on the bond energy difference between bonds broken (absorption of energy) and bonds formed (release of energy).

HS-PS1-7. Use mathematical representations and provide experimental evidence to support the claim that atoms, and therefore mass, are conserved during a chemical reaction. Use the mole concept and proportional relationships to evaluate the quantities (masses or moles) of specific reactants needed in order to obtain a specific amount of product.

HS-PS1-10(MA). Use an oxidation-reduction reaction model to predict products of reactions given the reactants, and to communicate the reaction models using a representation that shows electron transfer (redox). Use oxidation numbers to account for how electrons are redistributed in redox processes used in devices that generate electricity or systems that prevent corrosion.*

PS2. Motion and Stability: Forces and Interactions

HS-PS2-6. Communicate scientific and technical information about the molecular-level structures of polymers, ionic compounds, acids and bases, and metals to justify why these are useful in the functioning of designed materials.*

HS-PS2-8(MA). Use kinetic molecular theory to compare the strengths of electrostatic forces and the prevalence of interactions that occur between molecules in solids, liquids, and gases. Use the combined gas law to determine changes in pressure, volume, and temperature in gases.

PS3. Energy

HS-PS3-4b. Provide evidence from informational text or available data to illustrate that the transfer of energy during a chemical reaction in a closed system involves changes in energy dispersal (entropy change) and heat content (enthalpy change) while assuming the overall energy in the system is conserved.

High School Introductory Physics

PS2. Motion and Stability: Forces and Interactions

HS-PS2-1. Analyze data to support the claim that Newton's second law of motion is a mathematical model describing change in motion (the acceleration) of objects when acted on by a net force.

HS-PS2-3. Apply scientific principles of motion and momentum to design, evaluate, and refine a device that minimizes the force on a macroscopic object during a collision.*

HS-PS2-10(MA). Use free-body force diagrams, algebraic expressions, and Newton's laws of motion to predict changes to velocity and acceleration for an object moving in one dimension in various situations.

PS3. Energy

HS-PS3-1. Use algebraic expressions and the principle of energy conservation to calculate the change in energy of one component of a system when the change in energy of the other component(s) of the system, as well as the total energy of the system including any energy entering or leaving the system, is known. Identify any transformations from one form of energy to another, including thermal, kinetic, gravitational, magnetic, or electrical energy, in the system.

HS-PS3-2. Develop and use a model to illustrate that energy at the macroscopic scale can be accounted for as either motions of particles and objects or energy stored in fields.

PS4. Waves and Their Applications in Technologies for Information Transfer

HS-PS4-5. Communicate technical information about how some technological devices use the principles of wave behavior and wave interactions with matter to transmit and capture information and energy.*

Secondary Grades (6-12)

History and Social Science

This resource is only to be used during school closure due to COVID-19. The Department identified content standards that are prerequisites for student success in the next grade level. The standards should not be used in connection with MCAS expectations or referenced in preparing students for the MCAS for any grade level. Since most standards will already have been taught prior to the closures, we anticipate that significant time would still be spent on reinforcement as an integral part of opposed to advancing new concepts.

Grade 6 and 7

Grades 6 and 7 form a two-year sequence in which students study regions of the world by examining physical geography, nations in the region today, and selected ancient and classical societies. The standards listed below are pre-requisites for success in grade 8.

Practice Standards

2. Develop focused questions or problem statements and conduct inquiries
3. Organize information and data from multiple primary and secondary sources.

Content Topic 1: Studying complex societies, past and present [6.T1]

1. Explain how different academic fields in the social sciences concentrate on different means of studying societies in the past and present.
2. Give examples of ways in which a current historical interpretation might build on, extend, or reject an interpretation of the past.
3. Give examples of how archaeologists, historians, geographers, economists, and political scientists work as teams to analyze evidence, develop hypotheses, and construct interpretations of ancient and classical civilizations.

Content Topics 6.T2- 7.T4c

Teachers are encouraged to use Practice Standards 2 and 3 to facilitate inquiry-based investigations of a civilization/region not yet studied.

Grade 8: U.S. and MA Government and Civic Life

Practice Standards

1. Demonstrate civic knowledge, skills, and dispositions.
4. Analyze the purpose and point of view of each source; distinguish opinion from fact.
5. Evaluate the credibility, accuracy, and relevance of each source.

Content Topic 4: Rights and responsibilities of a citizen [8.T4]

7. Apply knowledge of the meaning of leadership and the qualities of good leaders to evaluate political leaders at the community, the state and national levels.
8. Explain the importance of individuals working cooperatively with their elected leaders.

Pre-Requisite Content Standards for Success in the Following Grade

9. Explain the importance of public service, and identify career and other opportunities in public service at the local, state, and national levels.
10. Analyze issues involving liberty in conflict with equality or authority, individual rights in conflict with the common good, or majority rule in conflict with minority rights.
11. Examine the varied understandings of the role of elected representatives and discuss those who have demonstrated political courage or those whose actions have failed to live up to the ideals of the Constitution

Content Topic 6: The Structure of Massachusetts state and local government [8.T6]

1. Compare and contrast the functions of state government and national government.
2. Describe provisions of the United States Constitution and the Massachusetts Constitution that define and distribute powers and authority of the federal or state government

Content Topic 7: The Freedom of Press and News/Media Literacy [8.T7]

2. Give examples of how a free press can provide competing information and views about government and politics.
4. Evaluate the benefits and challenges of digital news and social media to a democratic society.
5. Explain methods for evaluating information and opinion in print and online media (e.g., determining the credibility of news articles; analyzing the messages of editorials and op-ed commentaries; assessing the validity of claims and sufficiency of evidence).
6. Analyze the point of view and evaluate the claims of an editorial, editorial cartoon, or op-ed commentary on a public policy issue at the local, state, or national level (e.g., a mayoral or school committee decision, an action by a state legislature or Governor, a vote in Congress or an action by the President).

Grade 9-12

Content Standards

*Secondary HSS courses follow variable scope and sequences; teachers should attempt to **address the Content Standards they have not yet introduced** for their course. The last Topic of each grade is identified here with the assumption that earlier Topics were introduced earlier in the year; however, teachers are encouraged to prioritize Content Standards not yet introduced, and to apply them in connection with Practice Standards 2,3, and 7 to encourage inquiry-based investigations.*

US History I

Practice Standards

2. Develop focused questions or problem statements and conduct inquiries
6. Argue or explain conclusions, using valid reasoning and evidence.
7. Determine next steps and take informed action, as appropriate.

Content Topic 7: Progressivism and WWI [USI.T7]

Pre-Requisite Content Standards for Success in the Following Grade

1. Explain what Progressivism meant in the early 20th century and analyze a text or images by a Progressive leader (e.g., Jane Addams, William Jennings Bryan, John Dewey, Robert La Follette, Theodore Roosevelt, Margaret Sanger, Upton Sinclair, Lewis Hine, William H. Taft, Ida Tarbell, Woodrow Wilson).
2. Research and analyze one of the following governmental policies of the Progressive Period, determine the problem it was designed to solve, and assess its long and short-term effectiveness: bans against child labor, the development of Indian boarding schools, the Sherman Anti-Trust Act (1890), the Pure Food and Drug Act (1906), the Meat Packing Act (1906), the Federal Reserve Act (1913), the Clayton Anti-Trust Act (1914), the Indian Citizenship Act (1924).
3. Analyze the campaign for, and the opposition to, women’s suffrage in the late 19th and early 20th centuries; describe the role of leaders and organizations in achieving the passage of the 19th Amendment (e.g., Carrie Chapman Catt, Alice Paul, Ida B. Wells-Barnett the National Woman Suffrage Association, National Women’s Party, League of Women Voters).
4. Analyze the strategies of African Americans to achieve basic civil rights in the early 20th century, and determine the extent to which they met their goals by researching leaders and organizations (e.g., Ida B. Wells-Barnett, W. E. B. DuBois, Marcus Garvey, Booker T, Washington, and the National Association for the Advancement of Colored People).
5. Analyze the causes and course of growing role of the United States in world affairs from the Civil War to World War I, researching and reporting on one of the following ideas, policies, or events, and, where appropriate, including maps, timelines, and other visual resources to clarify connections among nations and events
6. Explain the rationale and events leading to the entry of the U.S. into World War I (e.g., unrestricted submarine warfare, the sinking of the Lusitania, the Zimmerman telegram, the concept of “making the world safe for democracy.”
7. Analyze the role played by the U.S. in support of the Allies and in the conduct of the war
8. Explain the course and significance of Woodrow Wilson’s wartime diplomacy, including his Fourteen Points, the League of Nations, and the failure of the Versailles Treaty.

US History II

Practice Standards

2. Develop focused questions or problem statements and conduct inquiries
6. Argue or explain conclusions, using valid reasoning and evidence.
7. Determine next steps and take informed action, as appropriate.

Content Topic 5: United States and globalization

1. Using primary sources such as campaign literature and debates, news articles/analyses, editorials, and television coverage, analyze the important policies and events that took place during the presidencies of John F. Kennedy (e.g., the confrontation with Cuba over missile bases, the space exploration program, Kennedy’s assassination), Lyndon Johnson (the Great Society programs, the Civil Rights and Voting Rights Acts, the Vietnam War and anti-war movements, the 1965 Immigration and Nationality Act, the assassinations of Martin Luther King, Jr., and Robert F. Kennedy), and Richard Nixon (the creation of the Environmental

Pre-Requisite Content Standards for Success in the Following Grade

Protection Agency, diplomacy with China, détente with the Soviet Union, the Watergate scandal, and Nixon's resignation).

2. Analyze and evaluate the impact of economic liberalism on mid-20th century society, including the legacy of the New Deal on post World War II America, the expansion of American manufacturing and unionism, social welfare programs, and the regulation of major industries such as transportation, energy, communications and finance.
3. Analyze the presidency of Ronald Reagan (1981-1989) and the rise of the conservative movement in American politics, (e.g., policies such as tax rate cuts, anti-communist foreign and defense policies, replacement of striking air traffic controllers with non-union personnel.
4. Analyze how the failure of communist economic policies and U.S.-sponsored resistance to Soviet military and diplomatic initiatives contributed to the fall of the Berlin Wall in 1989 the dissolution of the Soviet Union in 1991, and the end of the Cold War.
5. Analyze some of the major technological and social trends and issues of the late 20th and early 21st centuries (e.g., the computer and technological revolution beginning in the 1980s, scientific and medical discoveries such as DNA research, major immigration and demographic changes such as the rise in Asian and Hispanic immigration).
6. Evaluate the effectiveness of the federal government's response to international terrorism in the 21st century, including the 2001 terrorist attack on the World Trade Center in New York City and the Pentagon near Washington, D.C., the Homeland Security Act, the Foreign Intelligence Surveillance Act, and the Afghanistan and Iraq Wars.

World History I

Practice Standards

2. Develop focused questions or problem statements and conduct inquiries
6. Argue or explain conclusions, using valid reasoning and evidence.
7. Determine next steps and take informed action, as appropriate.

Content Topic 6: Philosophies of Government

1. Identify the origins and the ideals of the European Enlightenment, such as happiness, reason, progress, liberty, and natural rights, and how intellectuals of the movement (e.g., Denis Diderot, Emmanuel Kant, John Locke, Charles de Montesquieu, Jean-Jacques Rousseau, Mary Wollstonecraft, Cesare Beccaria, Voltaire, or social satirists such as Molière and William Hogarth) exemplified these ideals in their work and challenged existing political, economic, social, and religious structures.
2. Explain historical philosophies of government, giving examples from world history: a. the Chinese doctrine of the Mandate of Heaven, in which a ruler must be worthy of the right to rule b. absolute monarchy, in which a monarch holds unlimited power with no checks and balances (e.g., in France of Louis XIV, Spain, Prussia, and Austria) c. enlightened absolutism (e.g., in Russia under Czars Peter the Great and Catherine the Great, in which ideas of the Enlightenment temper absolutism) d. constitutional monarchy, in which a ruler is limited by a written or unwritten constitution (e.g., English traditions beginning with Magna Carta).
3. Explain why England was the exception to the growth of absolutism in Europe. a. the causes, essential events, and effects of the English Civil War and the Glorious Revolution of 1688 b. the

Pre-Requisite Content Standards for Success in the Following Grade

English Bill of Rights and its limits on the power of the monarch to act without the consent of Parliament

4. Explain the development of constitutional democracy following the American Revolution, the United States Constitution (1787), and the Bill of Rights (1791)

World History II

Practice Standards

2. Develop focused questions or problem statements and conduct inquiries
6. Argue or explain conclusions, using valid reasoning and evidence.
7. Determine next steps and take informed action, as appropriate.

Content Topic 7: The Politics of difference: conflicts, genocide and terrorism

1. Distinguish between the concepts of genocide and mass atrocity and analyze the causes of genocide and mass atrocities in the modern world (e.g., conflicts over political power, historical grievances, manipulation of ideas about difference and fear by political forces).
2. Analyze the events, people and conditions that have given rise to international terrorism including the emergence of the global terror network Al-Qaeda, the Taliban in Afghanistan, and ISIS, and evaluate responses by governments and societies to international terrorist activity.

Mathematics

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Grade 6

Ratios and Proportional Relationships

6.RP

A. Understand ratio and rate concepts and use ratio and rate reasoning to solve problems.

1. Understand the concept of a ratio including the distinctions between part:part and part:whole and the value of a ratio; part/part and part/whole. Use ratio language to describe a ratio relationship between two quantities.

For example: The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every two wings there was one beak; For every vote candidate A received, candidate C received nearly three votes, meaning that candidate C received three out of every four votes or $\frac{3}{4}$ of all votes.

2. Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship, *including the use of units*.

For example: This recipe has a ratio of three cups of flour to four cups of sugar, so there is $\frac{3}{4}$ cup of flour for each cup of sugar; We paid \$75 for 15 hamburgers, which is a rate of five dollars per hamburger.¹

3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.

- a. Make tables of equivalent ratios relating quantities with whole-number measurements. Find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.

- b. Solve unit rate problems, including those involving unit pricing, and constant speed.

For example, if it took seven hours to mow four lawns, then, at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?

- c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means $\frac{30}{100}$ times the quantity); solve problems involving finding the whole, given a part and the percent.

- d. Use ratio reasoning to convert measurement units within and between measurement systems; manipulate and transform units appropriately when multiplying or dividing quantities.

For example, Malik is making a recipe, but he cannot find his measuring cups! He has, however, found a tablespoon. His cookbook says that 1 cup = 16 tablespoons. Explain how he

¹ Expectations for unit rates in this grade are limited to non-complex fractions.

Pre-Requisite Content Standards for Success in the Following Grade

could use the tablespoon to measure out the following ingredients: two cups of flour, $\frac{1}{2}$ cup sunflower seed, and $\frac{1}{4}$ cup of oatmeal.²

- e. Solve problems that relate the mass of an object to its volume.

The Number System

6.NS

A. Apply and extend previous understandings of multiplication and division to divide fractions by fractions.

1. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.

For example, create a story context for $(\frac{2}{3}) \div (\frac{3}{4})$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(\frac{2}{3}) \div (\frac{3}{4}) = \frac{8}{9}$ because $\frac{3}{4}$ of $\frac{8}{9}$ is $\frac{2}{3}$. In general, $(\frac{a}{b}) \div (\frac{c}{d}) = \frac{ad}{bc}$. How much chocolate will each person get if three people share $\frac{1}{2}$ lb. of chocolate equally? How many $\frac{3}{4}$ -cup servings are in $\frac{2}{3}$ of a cup of yogurt? How wide is a rectangular strip of land with length $\frac{3}{4}$ mile and area $\frac{1}{2}$ square mile?

B. Compute fluently with multi-digit numbers and find common factors and multiples.

2. Fluently divide multi-digit numbers using the standard algorithm.
3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

C. Apply and extend previous understandings of numbers to the system of rational numbers.

5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, and positive/negative electric charge). Use positive and negative numbers (whole numbers, fractions, and decimals) to represent quantities in real-world contexts, explaining the meaning of zero in each situation.
6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.
 - a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., $-(-3) = 3$, and that zero is its own opposite.
 - b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
 - c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
8. Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.

² Example is from the Illustrative Mathematics Project: <https://www.illustrativemathematics.org/content-standards/tasks/2174>

Expressions and Equations

6.EE

A. Apply and extend previous understandings of arithmetic to algebraic expressions.

1. Write and evaluate numerical expressions involving whole-number exponents.
2. Write, read, and evaluate expressions in which letters stand for numbers.
 - a. Write expressions that record operations with numbers and with letters standing for numbers.

For example, express the calculation “Subtract y from 5” as $5 - y$.

- b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, and coefficient); view one or more parts of an expression as a single entity.

For example, describe the expression $2(8 + 7)$ as a product of two factors; view $(8 + 7)$ as both a single entity and a sum of two terms.

- c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).

For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = \frac{1}{2}$.

3. Apply the properties of operations to generate equivalent expressions.

For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$.

4. Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them).

For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for.

B. Reason about and solve one-variable equations and inequalities.

5. Understand solving an equation or inequality as a process of answering a question: Which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
7. Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q , and x are all nonnegative rational numbers.

C. Represent and analyze quantitative relationships between dependent and independent variables.

9. Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.

Pre-Requisite Content Standards for Success in the Following Grade

For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.

Geometry

6.G

A. Solve real-world and mathematical problems involving area, surface area, and volume.

1. Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.

Statistics and Probability

6.SP

B. Summarize and describe distributions.

5. Summarize numerical data sets in relation to their context, such as by:
 - a. Reporting the number of observations.
 - b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
 - c. Giving quantitative measures of center (median, and/or mean) and variability (range and/or interquartile range), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
 - d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

Grade 7

Ratios and Proportional Relationships

7.RP

A. Analyze proportional relationships and use them to solve real-world and mathematical problems.

1. Compute unit rates associated with ratios of fractions, including ratios of lengths, areas, and other quantities measured in like or different units.

For example, if a person walks $\frac{1}{2}$ mile in each $\frac{1}{4}$ hour, compute the unit rate as the complex fraction $\frac{\frac{1}{2}}{\frac{1}{4}}$ miles per hour, equivalently 2 miles per hour.

2. Recognize and represent proportional relationships between quantities.
 - a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table, or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
 - b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
 - c. Represent proportional relationships by equations.

For example, if total cost t is proportional to the number n of items purchased at a constant price p , the relationship between the total cost and the number of items can be expressed as $t = pn$.

- d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0, 0)$ and $(1, r)$ where r is the unit rate.
3. Use proportional relationships to solve multi-step ratio, rate, and percent problems.

For example: simple interest, tax, price increases and discounts, gratuities and commissions, fees, percent increase and decrease, percent error.

The Number System

7.NS

A. Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

1. Apply and extend previous understandings of addition and subtraction to add and subtract integers and other rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.

- a. Describe situations in which opposite quantities combine to make zero.

For example: A hydrogen atom has zero charge because its two constituents are oppositely charged; If you open a new bank account with a deposit of \$30 and then withdraw \$30, you are left with a \$0 balance.

- b. Understand $p + q$ as the number located a distance $|q|$ from p , in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
 - c. Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
 - d. Apply properties of operations as strategies to add and subtract rational numbers.
2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide integers and other rational numbers.

Pre-Requisite Content Standards for Success in the Following Grade

- a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
 - b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $-(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real-world contexts.
 - c. Apply properties of operations as strategies to multiply and divide rational numbers.
 - d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.
3. Solve real-world and mathematical problems involving the four operations with integers and other rational numbers.³

Expressions and Equations

7.EE

A. Use properties of operations to generate equivalent expressions.

1. Apply properties of operations to add, subtract, factor, and expand linear expressions with rational coefficients.

For example, $4x + 2 = 2(2x + 1)$ and $-3(x - \frac{5}{3}) = -3x + 5$.

2. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related.

For example, $a + 0.05a = 1.05a$ means that “increase by 5%” is the same as “multiply by 1.05.” A shirt at a clothing store is on sale for 20% off the regular price, “ p ”. The discount can be expressed as $0.2p$. The new price for the shirt can be expressed as $p - 0.2p$ or $0.8p$.

B. Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.

For example, if a woman making \$25 an hour gets a 10% raise, she will make an additional $\frac{1}{10}$ of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar $9\frac{3}{4}$ inches long in the center of a door that is $27\frac{1}{2}$ inches wide, you will need to place the bar about 9 inches from each edge; This estimate can be used as a check on the exact computation.

4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
 - a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p , q , and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach.

For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?

³ Computations with rational numbers extend the rules for manipulating fractions to complex fractions.

Pre-Requisite Content Standards for Success in the Following Grade

- b.** Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p , q , and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem.

For example, as a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.

- c.** Extend analysis of patterns to include analyzing, extending, and determining an expression for simple arithmetic and geometric sequences (e.g., compounding, increasing area), using tables, graphs, words, and expressions.

Geometry

7.G

B. Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.

- 4.** Circles and measurement:
 - a.** Know that a circle is a two-dimensional shape created by connecting all of the points equidistant from a fixed point called the center of the circle.
 - b.** Understand and describe the relationships among the radius, diameter, and circumference of a circle.
 - c.** Understand and describe the relationship among the radius, diameter, and area of a circle.
 - d.** Know the formulas for the area and circumference of a circle and use them to solve problems.
 - e.** Give an informal derivation of the relationship between the circumference and area of a circle.
- 6.** Solve real-world and mathematical problems involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

Statistics and Probability

7.SP

C. Investigate chance processes and develop, use, and evaluate probability models.

- 5.** Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around $\frac{1}{2}$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
- 8.** Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.
 - a.** Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.
 - b.** Represent sample spaces for compound events using methods such as organized lists, tables, and tree diagrams. For an event described in everyday language (e.g., “rolling double sixes”), identify the outcomes in the sample space which compose the event.
 - c.** Design and use a simulation to generate frequencies for compound events.

For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least four donors to find one with type A blood?

Grade 8

Expressions and Equations

8.EE

A. Work with radicals and integer exponents.

1. Know and apply the properties of integer exponents to generate equivalent numerical expressions.

For example, $3^2 \times 3^{-5} = 3^{-3} = \frac{1}{3^3} = \frac{1}{27}$.

2. Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational.

B. Understand the connections between proportional relationships, lines, and linear equations.

5. Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways.

For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.

C. Analyze and solve linear equations and pairs of simultaneous linear equations.

7. Solve linear equations in one variable.
 - a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).
 - b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.
8. Analyze and solve pairs of simultaneous linear equations.
 - a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.
 - b. Solve systems of two linear equations in two variables algebraically (using substitution and elimination strategies), and estimate solutions by graphing the equations. Solve simple cases by inspection.

For example, $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6.

- c. Solve real-world and mathematical problems leading to two linear equations in two variables.

For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.

Functions

8.F

A. Define, evaluate, and compare functions.

1. Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.⁴
2. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).

⁴ Function notation is not required in grade 8.

Pre-Requisite Content Standards for Success in the Following Grade

For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.

3. Interpret the equation $y = mx + b$ as defining a linear function whose graph is a straight line; give examples of functions that are not linear.

For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1, 1), (2, 4) and (3, 9), which are not on a straight line.

B. Use functions to model relationships between quantities.

4. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
5. Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

Geometry

8.G

A. Understand congruence and similarity using physical models, transparencies, or geometry software.

2. Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations. Given two congruent figures, describe a sequence that exhibits the congruence between them.
4. Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations. Given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.

B. Understand and apply the Pythagorean Theorem.

7. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.

Statistics and Probability

8.SP

A. Investigate patterns of association in bivariate data.

3. Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept.

For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.

High School Standards for Mathematical Content: By Conceptual Category

Conceptual Category: Number and Quantity [N]

The Real Number System

N-RN

A. Extend the properties of exponents to rational exponents.

1. Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents.

For example, we define $5^{1/3}$ to be the cube root of 5 because we want $(5^{1/3})^3 = 5^{(1/3)3}$ to hold, so $(5^{1/3})^3$ must equal 5.

2. Rewrite expressions involving radicals and rational exponents using the properties of exponents.

Conceptual Category: Algebra [A]

Seeing Structure in Expressions

A-SSE

A. Interpret the structure of linear, quadratic, exponential, polynomial, and rational expressions.

1. Interpret expressions that represent a quantity in terms of its context. ★
 - a. Interpret parts of an expression, such as terms, factors, and coefficients.
 - b. Interpret complicated expressions by viewing one or more of their parts as a single entity.

For example, interpret $P(1 + r)^n$ as the product of P and a factor not depending on P .

B. Write expressions in equivalent forms to solve problems.

3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.
 - a. Factor a quadratic expression to reveal the zeros of the function it defines.
 - b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.
 - c. Use the properties of exponents to transform expressions for exponential functions.

For example, the expression 1.15^t can be rewritten as $(1.15^{1/12})^{12t} \approx 1.012^{12t}$ to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.

Arithmetic with Polynomials and Rational Expressions

A-APR

A. Perform arithmetic operations on polynomials.

1. Understand that polynomials form a system analogous to the integers, namely, they are closed under certain operations.
 - a. Perform operations on polynomial expressions (addition, subtraction, multiplication, division) and compare the system of polynomials to the system of integers when performing operations.
 - b. Factor and/or expand polynomial expressions, identify and combine like terms, and apply the Distributive property.

B. Understand the relationship between zeros and factors of polynomials.

3. Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.

Creating Equations

A-CED

A. Create equations that describe numbers or relationships.

1. Create equations and inequalities in one variable and use them to solve problems. (Include equations arising from linear and quadratic functions, and simple root and rational functions and exponential functions.) ★
2. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. ★
3. Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. ★
For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.
4. Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. ★
For example, rearrange Ohm's law $V = IR$ to highlight resistance, R .

Reasoning with Equations and Inequalities

A-REI

B. Solve equations and inequalities in one variable.

3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.
 - a. Solve linear equations and inequalities in one variable involving absolute value.
4. Solve quadratic equations in one variable.
 - a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form.
 - b. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula, and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b .

C. Solve systems of equations.

6. Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.

D. Represent and solve equations and inequalities graphically.

10. Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line). Show that any point on the graph of an equation in two variables is a solution to the equation.
11. Explain why the x -coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions. ★
12. Graph the solutions of a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set of a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

Conceptual Category: Functions [F]

Interpreting Functions

F-IF

A. Understand the concept of a function and use function notation.

1. Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x . The graph of f is the graph of the equation $y = f(x)$.
2. Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.

For example, given a function representing a car loan, determine the balance of the loan at different points in time.

B. Interpret functions that arise in applications in terms of the context (linear, quadratic, exponential, rational, polynomial, square root, cube root, trigonometric, logarithmic).

4. For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. ★
6. Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph. ★

C. Analyze functions using different representations.

7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. ★
 - a. Graph linear and quadratic functions and show intercepts, maxima, and minima. ★
 - b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions. ★
 - c. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior. ★
 - d. (+) Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior. ★
 - e. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude. ★
8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.
 - a. Use the process of factoring and/or completing the square in quadratic and polynomial functions, where appropriate, to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.
 - b. Use the properties of exponents to interpret expressions for exponential functions. Apply to financial situations such as identifying appreciation and depreciation rate for the value of a house or car some time after its initial purchase. $V_n = P(1+r)^n$

For example, identify percent rate of change in functions such as $y = (1.02)^t$, $y = (0.97)^t$, $y = (1.01)^{12t}$, and $y = (1.2)^{t/10}$, and classify them as representing exponential growth or decay.

9. Translate among different representations of functions (algebraically, graphically, numerically in tables, or by verbal descriptions). Compare properties of two functions each represented in a different way.

Pre-Requisite Content Standards for Success in the Following Grade

For example, given a graph of one polynomial function (including quadratic functions) and an algebraic expression for another, say which has the larger/smaller relative maximum and/or minimum.

10. Given algebraic, numeric and/or graphical representations of functions, recognize the function as polynomial, rational, logarithmic, exponential, or trigonometric.

Building Functions

F-BF

A. Build a function that models a relationship between two quantities.

1. Write a function (linear, quadratic, exponential, simple rational, radical, logarithmic, and trigonometric) that describes a relationship between two quantities. ★
 - a. Determine an explicit expression, a recursive process, or steps for calculation from a context. ★
 - b. Combine standard function types using arithmetic operations. ★

For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.

- c. (+) Compose functions. ★

For example, if $T(y)$ is the temperature in the atmosphere as a function of height, and $h(t)$ is the height of a weather balloon as a function of time, then $T(h(t))$ is the temperature at the location of the weather balloon as a function of time.

2. Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms. ★

B. Build new functions from existing functions.

3. Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. (Include linear, quadratic, exponential, absolute value, simple rational and radical, logarithmic and trigonometric functions.) Utilize technology to experiment with cases and illustrate an explanation of the effects on the graph. (Include recognizing even and odd functions from their graphs and algebraic expressions for them.)

Linear, Quadratic, and Exponential Models

F-LE

A. Construct and compare linear, quadratic, and exponential models and solve problems.

1. Distinguish between situations that can be modeled with linear functions and with exponential functions. ★
 - a. Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals. ★
 - b. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another. ★
 - c. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another. ★
2. Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (including reading these from a table). ★
3. Observe, using graphs and tables, that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function. ★

Trigonometric Functions

F-TF

B. Model periodic phenomena with trigonometric functions.

5. Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline. ★

Conceptual Category: Geometry [G]

Congruence

G-CO

A. Experiment with transformations in the plane.

1. Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.
2. Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch).
5. Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.

Similarity, Right Triangles, and Trigonometry

G-SRT

A. Understand similarity in terms of similarity transformations.

1. Verify experimentally the properties of dilations given by a center and a scale factor:
 - a. A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged.
 - b. The dilation of a line segment is longer or shorter in the ratio given by the scale factor.

B. Prove theorems involving similarity.

4. Prove theorems about triangles. Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity.

C. Define trigonometric ratios and solve problems involving right triangles.

6. Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.
7. Explain and use the relationship between the sine and cosine of complementary angles.
8. Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems. ★

Circles

G-C

B. Find arc lengths and areas of sectors of circles.

5. Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.

Expressing Geometric Properties with Equations

G-GPE

B. Use coordinates to prove simple geometric theorems algebraically.

4. Use coordinates to prove simple geometric theorems algebraically including the distance formula and its relationship to the Pythagorean Theorem.

For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the **point $(1, \sqrt{3})$ lies on the circle centered at the origin and containing the point $(0, 2)$.**

5. Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).

Geometric Measurement and Dimension

G-GMD

A. Explain volume formulas and use them to solve problems.

1. Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. *Use dissection arguments, Cavalieri's principle, and informal limit arguments.*
5. Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.*

Modeling with Geometry

G-MG

A. Apply geometric concepts in modeling situations.

1. Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder). ★

Conceptual Category: Statistics and Probability [S]

Interpreting Categorical and Quantitative Data

S-ID

A. Summarize, represent, and interpret data on a single count or measurement variable. Use calculators, spreadsheets, and other technology as appropriate.

1. Represent data with plots on the real number line (dot plots, histograms, and box plots). ★
2. Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.*
3. Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).*
4. Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.*

B. Summarize, represent, and interpret data on two categorical and quantitative variables.

5. Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.*
6. Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.*
 - a. Fit a linear function to the data and use the fitted function to solve problems in the context of the data. Use functions fitted to data or choose a function suggested by the context. Emphasize linear and exponential models.*
 - b. Informally assess the fit of a function by plotting and analyzing residuals.*

Pre-Requisite Content Standards for Success in the Following Grade

- c. Fit a linear function for a scatter plot that suggests a linear association.*

C. Interpret linear models.

- 7. Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.*
- 8. Compute (using technology) and interpret the correlation coefficient of a linear fit.*
- 9. Distinguish between correlation and causation.*

Making Inferences and Justifying Conclusions

S-IC

A. Understand and evaluate random processes underlying statistical experiments. Use calculators, spreadsheets, and other technology as appropriate.

- 4. Understand statistics as a process for making inferences about population parameters based on a random sample from that population.*

The High School Standards for Mathematical Content: Standards by Model Course

The mathematical content standards presented above are organized by Conceptual Categories. The tables below show how these conceptual category content standards are distributed across the eight model courses:

- Algebra I (AI)
- Geometry (GEO)
- Algebra II (AII)
- Math I (MI)
- Math II (MII)
- Math III (MIII)
- Precalculus (PC)
- Advanced Quantitative Reasoning (AQR)

Number and Quantity [N]

	AI	GEO	AII	MI	MII	MIII	PC	AQR
The Real Number System (N-RN)								
A. Extend the properties of exponents to rational exponents.								
1	✓				✓			
2	✓				✓			

Pre-Requisite Content Standards for Success in the Following Grade

STATISTICS AND PROBABILITY [S]								
	A I	GEO	A II	M I	M II	M III	PC	AQR
Interpreting Categorical and Quantitative Data (S-ID)								
A. Summarize, represent, and interpret data on a single count or measurement variable. Use calculators, spreadsheets, and other technology as appropriate.								
1	✓			✓				
2	✓			✓				
3	✓			✓				
4	✓		✓			✓		
B. Summarize, represent, and interpret data on two categorical and quantitative variables.								
5	✓			✓				
6	✓			✓				
a	✓			✓				
b	✓			✓				
c	✓			✓				
C. Interpret linear models.								
7	✓			✓				
8	✓			✓				
9	✓			✓				✓
Making Inferences and Justifying Conclusions (S-IC)								
A. Understand and evaluate random processes underlying statistical experiments.								
1			✓			✓		

ALGEBRA [A]

	A I	GEO	A II	M I	M II	M III	PC	AQR
Seeing Structure in Expressions (A-SSE)								
A. Interpret the structure of expressions.								
1	✓		✓	✓	✓	✓		
a	✓		✓	✓	✓	✓		
b	✓		✓	✓	✓	✓		
B. Write expressions in equivalent forms to solve problems.								
3	✓				✓			
a	✓				✓			
b	✓				✓			
c	✓				✓			
Arithmetic with Polynomials and Rational Expressions (A-APR)								
A. Perform arithmetic operations on polynomials.								
1	✓		✓		✓	✓		
a	✓		✓		✓	✓		
b	✓				✓			
B. Understand the relationship between zeros and factors of polynomials.								
3			✓			✓		
Creating Equations (A-CED)								
A. Create equations that describe numbers or relationships.								
1	✓		✓	✓	✓	✓		
2	✓		✓	✓	✓	✓		
3	✓		✓	✓		✓		
4	✓			✓	✓			
Reasoning with Equations and Inequalities (A-REI)								
	A I	GEO	A II	M I	M II	M III	PC	AQR
B. Solve equations and inequalities in one variable.								
3	✓			✓				
a	✓			✓				
4	✓				✓			
a	✓				✓			
b	✓				✓			
C. Solve systems of equations.								
6	✓			✓				
D. Represent and solve equations and inequalities graphically.								
10	✓			✓				
11	✓		✓	✓		✓		
12	✓			✓				

Functions [F]

	A I	GEO	A II	M I	M II	M III	PC	AQR
Interpreting Functions (F-IF)								
A. Understand the concept of a function and use function notation.								
1	✓			✓				
2	✓			✓				
B. Interpret functions that arise in applications in terms of the context (linear, quadratic, exponential, rational, polynomial, square root, cube root, trigonometric, logarithmic).								
4	✓		✓	✓	✓	✓		
6	✓		✓	✓	✓	✓		
C. Analyze functions using different representations.								
7	✓		✓	✓	✓	✓	✓	
a	✓			✓	✓			
b	✓		✓		✓			
c			✓			✓		
d+							✓	
e	✓		✓	✓		✓		
8	✓		✓		✓	✓		
a	✓		✓		✓	✓		
b	✓				✓	✓		
9	✓		✓	✓	✓	✓		
10			✓			✓		
Building Functions (F-BF)								
A. Build a function that models a relationship between two quantities.								
1	✓		✓	✓	✓	✓	✓	
a	✓			✓	✓			
b	✓		✓	✓	✓	✓		
c+							✓	
2	✓			✓				
B. Build new functions from existing functions.								
3	✓		✓	✓	✓	✓		
Linear, Quadratic, and Exponential Models (F-LE)								
A. Construct and compare linear, quadratic, and exponential models and solve problems.								
1	✓			✓				
a	✓			✓				
b	✓			✓				
c	✓			✓				
2	✓			✓				
3	✓			✓	✓			
B. Interpret expressions for functions in terms of the situation they model.								
5	✓			✓				

Geometry [G]

	A I	GEO	A II	M I	M II	M III	PC	AQR
Congruence (G-CO)								
A. Experiment with transformations in the plane.								
1		✓		✓				
2		✓		✓				
5		✓		✓				
Similarity, Right Triangles, and Trigonometry (G-SRT)								
A. Understand similarity in terms of similarity transformations.								
1		✓			✓			
a		✓			✓			
b		✓			✓			
B. Prove theorems involving similarity.								
4		✓			✓			
C. Define trigonometric ratios and solve problems involving right triangles.								
6		✓			✓			
7		✓			✓			
8		✓			✓			
Circles (G-C)								
B. Find arc lengths and areas of sectors of circles.								
5		✓			✓			
Expressing Geometric Properties with Equations (G-GPE)								
B. Use coordinates to prove simple geometric theorems algebraically.								
4		✓			✓			
5		✓		✓				
Geometric Measurement and Dimension (G-GMD)								
A. Explain volume formulas and use them to solve problems.								
1		✓			✓			
3		✓			✓			
Modeling with Geometry (G-MG)								
A. Apply geometric concepts in modeling situations.								
1		✓				✓		

AP CollegeBoard Updates

Northbridge High School
Meeting for AP Students



Exam format for 2019-2020

For the 2019–20 exam administration only, students can take a 45-minute online free-response exam at home.

Content on AP Exams

To be fair to all students, some of whom have lost more instructional time than others, the exam will only include topics and skills most AP teachers and students have already covered in class by early March.

Your AP teachers will be sharing this information with you.

College Credit

Colleges support this solution and are committed to ensuring that AP students receive the credit they have worked this year to earn. For decades, colleges have accepted a shortened AP Exam for college credit when groups of students have experienced emergencies

Access to Testing

Students will be able to take these streamlined exams on any device they have access to—computer, tablet, or smartphone. Taking a photo of handwritten work will also be an option.

Test Security

The exam questions are designed and administered in ways that prevent cheating; the College Board uses a range of digital security tools and techniques, including plagiarism detection software, to protect the integrity of the exams.

Exam Dates

May 11-May 22

- Three exams per day spaced 2 hours apart (12, 2, and 4 pm Eastern)
- Each subject's exam taken on the same day at the same time, worldwide
- Students should make plans to take their exam on a primary exam date

Makeup Exam Dates: June 1- 5

- Last opportunity to take AP exams

Recommendation at NHS

- Continue to access resources from the College Board websites regarding curricular support. If you have not already registered with them (I believe we all have), do so.
- Continue to engage in your AP classes.

AP Classroom

The College Board is committed to supporting students with free resources through exam day. Many of these resources are available via AP Classroom.

Your teachers will be in touch with more information and resources for review.

Test Dates

<https://apcentral.collegeboard.org/courses/exam-dates-and-fees>

You will receive notification from both AP and NHS reminding you of your upcoming test dates.

AP Mock Exams

Reaching out directly to students to let them know if and when there will be an AP mock exam issued for your AP course.

AP mock exams will be available to students digitally and will reflect the change in format for this year.

What's the Plan?

We want to keep you engaged through the next few weeks, get guidance on the exam, and put you in a position to be successful.

Continue as much as business as usual as possible.

Payment

- Payment (check) needs to be sent and received by Northbridge HS on **Monday, May 4th**
- Test Fee is **\$94.00** per test; **\$53.00** for F/R lunch

Northbridge High School

427 Linwood Ave, Whitinsville, MA 01588 attn: AP coordinator

Students may opt out of the exam and will still receive AP course credit. Email Mr. Katz/Mr. McCormick by 5/4 if you choose to opt out.

AP Exams 2020 by Local Start Times

<p>Exam Start Times:</p> <p>Local times may vary depending on a student's geographic location.</p>	<p>Hawaii Time: 6:00 a.m.</p> <p>Alaska Time: 8:00 a.m.</p> <p>Pacific Time: 9:00 a.m.</p> <p>Mountain Time: 10:00 a.m.</p> <p>Central Time: 11:00 a.m.</p> <p>Eastern Time: 12:00 p.m.</p> <p>Greenwich Mean Time: 4:00 p.m.</p>	<p>Hawaii Time: 8:00 a.m.</p> <p>Alaska Time: 10:00 a.m.</p> <p>Pacific Time: 11:00 a.m.</p> <p>Mountain Time: 12:00 p.m.</p> <p>Central Time: 1:00 p.m.</p> <p>Eastern Time: 2:00 p.m.</p> <p>Greenwich Mean Time: 6:00 p.m.</p>	<p>Hawaii Time: 10:00 a.m.</p> <p>Alaska Time: 12:00 p.m.</p> <p>Pacific Time: 1:00 p.m.</p> <p>Mountain Time: 2:00 p.m.</p> <p>Central Time: 3:00 p.m.</p> <p>Eastern Time: 4:00 p.m.</p> <p>Greenwich Mean Time: 8:00 p.m.</p>
<p>Mon, May 11</p>	<p>Physics C: Mechanics</p>	<p>Physics C: Electricity and Magnetism</p>	<p>United States Government and Politics</p>

Tues, May 12	Latin	Calculus AB Calculus BC	Human Geography
Wed, May 13	Physics 2: Algebra-Based	English Literature and Composition	European History
Thurs, May 14	Spanish Literature and Culture	Chemistry	Physics 1: Algebra-Based
Fri, May 15	Art History	United States History	Computer Science A
Mon, May 18	Chinese Language and Culture	Biology	Environmental Science
Tues, May 19	Music Theory	Psychology	Japanese Language and Culture

			Italian Language and Culture
Wed, May 20	German Language and Culture	English Language and Composition	Microeconomics
Thurs, May 21	French Language and Culture	World History: Modern	Macroeconomics
Fri, May 22	Comparative Government and Politics	Statistics	Spanish Language and Culture