

Londonderry School District Benchmarks

7/17/2008

GRADE: L1 **SUBJECT: Fine Motor Skills**

TOPIC: Fine Motor Skills

- L1.FMS.FMtrSk.3310 uses neat pincer grasp
- L1.FMS.FMtrSk.3311 uses one hand consistently in most activities
- L1.FMS.FMtrSk.3312 cuts small piece of paper in half
- L1.FMS.FMtrSk.3313 strings 1/2" beads
- L1.FMS.FMtrSk.3314 holds drawing tools with fingertips and thumb
- L1.FMS.FMtrSk.3315 beginning to draw recognizable person
- L1.FMS.FMtrSk.3316 explores a variety of texture and tactile media

GRADE: L1 **SUBJECT: Gross Motor Skills**

TOPIC: Gross Motor Skills

- L1.GMS.GrsMtrSk.3328 runs smoothly, changing speed
- L1.GMS.GrsMtrSk.3329 throws and catches ball with two hands (may use the body) from short distance
- L1.GMS.GrsMtrSk.3330 ascends stairs with alternating feet
- L1.GMS.GrsMtrSk.3331 rides tricycle using pedals
- L1.GMS.GrsMtrSk.3332 negotiates gross motor equipment safely and independently

GRADE: L1 **SUBJECT: Language Arts/General**

TOPIC: Language Arts

- L1.LA/G.LangArt.3264 recites a simple poem or finger play
- L1.LA/G.LangArt.3265 shows interest and enjoyment in age-appropriate printed materials
- L1.LA/G.LangArt.3266 matches colors: red, blue, yellow and green
- L1.LA/G.LangArt.3267 responds to who or what questions
- L1.LA/G.LangArt.3268 follows at least 3 familiar verbal commands
- L1.LA/G.LangArt.3269 demonstrates the understanding of simple possessive forms (your and my)
- L1.LA/G.LangArt.3270 uses words and sentences to tell about his/her experiences
- L1.LA/G.LangArt.3271 uses three-word phrases meaningfully
- L1.LA/G.LangArt.3272 engages in extended and meaningful nonverbal exchanges with others
- L1.LA/G.LangArt.3273 responds to yes/no appropriately

GRADE: L1 **SUBJECT: Math/General**

TOPIC: Mathematics

- L1.Ma/G.Math.3286 understands perception of small numbers to 2
- L1.Ma/G.Math.3287 nests objects inside one another
- L1.Ma/G.Math.3288 rote counts to 5
- L1.Ma/G.Math.3289 demonstrates an understanding of more
- L1.Ma/G.Math.3290 demonstrates an understanding of one to one correspondence when counting objects up to 5 items
- L1.Ma/G.Math.3291 matches a circle, square and triangle

GRADE: L1 **SUBJECT: Science and Social Studies**

TOPIC: Science and Social Studies

- L1.SSS.Sci&SS.3302 uses words, gestures or eye contact to make social connection
- L1.SSS.Sci&SS.3303 engages in role-playing and imitation
- L1.SSS.Sci&SS.3304 uses objects to pretend

L1.SSS.Sci&SS.3305 greets familiar people

GRADE:L2 **SUBJECT: Fine Motor Skills**

TOPIC: Fine Motor Skills

- L2.FMS.FMtrSk.3317 demonstrates an interest in a variety of drawing and writing materials
- L2.FMS.FMtrSk.3318 draws a person with at least 4-5 body parts
- L2.FMS.FMtrSk.3319 explores a variety of textures and tactile media
- L2.FMS.FMtrSk.3320 shows emerging functional drawing tool grasp
- L2.FMS.FMtrSk.3321 draws representational pictures
- L2.FMS.FMtrSk.3322 cuts out simple shapes (circle) within 1/2"
- L2.FMS.FMtrSk.3323 colors simple shapes bordered by thick lines
- L2.FMS.FMtrSk.3324 stacks 2 cubes vertically
- L2.FMS.FMtrSk.3325 [Spring Only] traces simple uppercase letters (i.e. E, F, H, L)
- L2.FMS.FMtrSk.3326 [Spring Only] imitates uppercase letters (i.e. E, F, K, L)
- L2.FMS.FMtrSk.3327 [Spring Only] stacks 8 cubes vertically

GRADE:L2 **SUBJECT: Language Arts/General**

TOPIC: Language Arts

- L2.LA/G.LangArt.3274 follows 2 step verbal commands
- L2.LA/G.LangArt.3275 responds to where and when questions
- L2.LA/G.LangArt.3276 understands big/little and tall/short
- L2.LA/G.LangArt.3277 asks questions that begin with who, where, why and how
- L2.LA/G.LangArt.3278 uses 5 or 6 word sentences
- L2.LA/G.LangArt.3279 often talks about actions in conversations
- L2.LA/G.LangArt.3280 completes simple analogies
- L2.LA/G.LangArt.3281 enjoys rhyming and nonsense words
- L2.LA/G.LangArt.3282 understands spatial concepts (i.e. under, in back of, next to, in front of)
- L2.LA/G.LangArt.3283 names categories
- L2.LA/G.LangArt.3284 begins to demonstrate word discrimination skills
- L2.LA/G.LangArt.3285 demonstrates early phonemic skills by imitating single phonemes in isolation such as /p/, /b/, /m/, /t/, and /d/

GRADE:L2 **SUBJECT: Math/General**

TOPIC: Mathematics

- L2.Ma/G.Math.3292 when counting objects, demonstrates an understanding that the last number spoken is the quantity of objects in the group (Cardinality Rule)
- L2.Ma/G.Math.3293 demonstrates an understanding of simple addition and subtraction to 4
- L2.Ma/G.Math.3294 demonstrates number consistency to 4
- L2.Ma/G.Math.3295 produces sets up to 5
- L2.Ma/G.Math.3296 produces finger displays to 5
- L2.Ma/G.Math.3297 rote counts to 10
- L2.Ma/G.Math.3298 demonstrates a mental number line to 5 (i.e. number after task)
- L2.Ma/G.Math.3299 demonstrates reading numerals of single-digit numbers
- L2.Ma/G.Math.3300 sorts objects by shape (circle, square)
- L2.Ma/G.Math.3301 recognizes visual differences among similar shapes

GRADE:L2 **SUBJECT: Science and Social Studies**

TOPIC: Science and Social Studies

L2.SSS.Sci&SS.3306	identifies sources of information
L2.SSS.Sci&SS.3307	answers simple logic questions
L2.SSS.Sci&SS.3308	can identify parts of a whole
L2.SSS.Sci&SS.3309	demonstrates caution and avoids common dangers

GRADE:K **SUBJECT: Communication**

TOPIC: Communication

K.Com.Comm.315	uses new vocabulary in discussion
K.Com.Comm.335	uses complete sentences of increasing complexity
K.Com.Comm.336	uses pronouns of appropriate gender
K.Com.Comm.337	gives sensible answers to function of objects
K.Com.Comm.338	responds to a variety of question forms: who, how, when
K.Com.Comm.339	follows three-related-step commands
K.Com.Comm.340	participates in discussions
K.Com.Comm.341	carries on simple conversations
K.Com.Comm.342	discriminates between common opposites
K.Com.Comm.343	completes simple analogies
K.Com.Comm.344	distinguishes spatial relations such as on top, behind, far, and near

GRADE:K **SUBJECT: Fine Motor Skills**

TOPIC: Fine Motor Skills

K.FMS.FMtrSk.354	visually tracks moving objects, vertically and horizontally
K.FMS.FMtrSk.356	demonstrates proper scissors grasp
K.FMS.FMtrSk.357	reproduces basic shapes, letters, numbers and words
K.FMS.FMtrSk.358	cuts out basic shapes within 1/4 inch
K.FMS.FMtrSk.359	colors within lines
K.FMS.FMtrSk.360	draws a person with at least 10 body parts
K.FMS.FMtrSk.363	imitates basic block designs
K.FMS.FMtrSk.365	is independent in school related self-help tasks (zipping, buttoning, lacing, etc.)

TOPIC: Handwriting without Tears

K.FMS.HndWT.317	copies all upper and lower case letters
K.FMS.HndWT.318	writes first name in appropriate case and copies last name
K.FMS.HndWT.320	copies numerals 0 - 9 accurately
K.FMS.HndWT.355	demonstrates functional pencil and drawing tool grasp

GRADE:K **SUBJECT: Gross Motor Skills**

TOPIC: Gross Motor Skills

K.GMS.GrsMtrSk.366	safely uses all basic playground equipment
K.GMS.GrsMtrSk.367	demonstrates locomotor skills appropriate to age
K.GMS.GrsMtrSk.368	plays simple organized games
K.GMS.GrsMtrSk.369	demonstrates eye/hand coordination
K.GMS.GrsMtrSk.370	demonstrates spatial concepts (under, over, etc.)
K.GMS.GrsMtrSk.371	negotiates school environment efficiently and safely

GRADE:K **SUBJECT: Health**

TOPIC: Health, Social, Emotional

K.Hlth.HlthSE.372	demonstrates attention to task individually and in groups
K.Hlth.HlthSE.373	responds to consistency and limits

K.Hlth.HlthSE.374	transitions between activities with minimal direction
K.Hlth.HlthSE.375	follows daily routine
K.Hlth.HlthSE.376	makes meaningful, relevant choices during unstructured time
K.Hlth.HlthSE.377	shows sensitivity to the needs of others
K.Hlth.HlthSE.378	works and plays cooperatively within a group
K.Hlth.HlthSE.379	attains attention from peers in socially acceptable ways
K.Hlth.HlthSE.380	develops at least one friendship at school
K.Hlth.HlthSE.381	uses materials for appropriate purposes
K.Hlth.HlthSE.382	respects the rights and property of others
K.Hlth.HlthSE.383	accepts responsibility for his/her actions
K.Hlth.HlthSE.384	show problem solving ability in social situations
K.Hlth.HlthSE.385	understands and applies basic personal hygiene
K.Hlth.HlthSE.386	shows understanding of conditions necessary for good health - food, rest, exercise

GRADE:K **SUBJECT: Language Arts/General**

TOPIC: Phonemic Awareness

K.LA/G.PhonAwar.303	auditorily discriminates if words are the same or different
K.LA/G.PhonAwar.304	identifies and produces rhymes
K.LA/G.PhonAwar.305	orally blends and segments syllables
K.LA/G.PhonAwar.306	isolates beginning sounds
K.LA/G.PhonAwar.307	identifies consonants and short vowel sounds

TOPIC: Reading Readiness

K.LA/G.ReadR.300	retells simple stories
K.LA/G.ReadR.301	retells at least 3 story events; beginning, middle and end
K.LA/G.ReadR.302	recognizes and identifies all upper and most lower case letters
K.LA/G.ReadR.308	demonstrates use of left/right; top/ bottom orientation
K.LA/G.ReadR.309	demonstrates understanding of concepts of print
K.LA/G.ReadR.310	matches words to symbols, e.g. stop, exit, fire
K.LA/G.ReadR.311	recognizes 15 high frequency words (I, a, the, me, at, etc.)
K.LA/G.ReadR.312	identifies/reads simple predictable pattern text
K.LA/G.ReadR.2976	shows interest in books and in being read to

TOPIC: Writing Process

K.LA/G.WriProc.313	draws a picture related to a topic and uses known letters, sight words and/or environmental print to write
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GRADE:K **SUBJECT: Math/General**

TOPIC: Communication and Problem Solving

K.Ma/G.CommPS.2635	use basic math vocabulary (i.e. smaller, bigger, more, less than, and same as)
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TOPIC: Data, Statistics and Probability

K.Ma/G.DataSP.2628	create simple real graphs
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TOPIC: Functions and Algebra

K.Ma/G.FuncAlg.2629	recognize and record basic patterns (glue or color objects to record a pattern)
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TOPIC: Geometry and Measurement

K.Ma/G.Geom&M.2630	name 4 basic geometric shapes
K.Ma/G.Geom&M.2631	recite days of week in order & possess awareness of months
K.Ma/G.Geom&M.2632	familiar with names of coins
K.Ma/G.Geom&M.2633	measure length using non-standard tools

K.Ma/G.Geom&M.2669 make comparisons

TOPIC: Number and Operations

K.Ma/G.Num&Ops.2634 join sets of objects that sum to < 10
K.Ma/G.Num&Ops.2636 understand simple fractions as equal parts of a whole
K.Ma/G.Num&Ops.2665 rote count to 31
K.Ma/G.Num&Ops.2666 count objects to 20
K.Ma/G.Num&Ops.2667 recognize ordinal numbers: 1st through 3rd
K.Ma/G.Num&Ops.2668 sort and classify a variety of manipulatives
K.Ma/G.Num&Ops.2754 name and match numerals to 20

GRADE:K **SUBJECT: Science and Social Studies**

TOPIC: Science and Social Studies

K.SSS.Sci&SS.345 recites significant numbers such as phone number, address
K.SSS.Sci&SS.346 identifies weather in terms of the seasons
K.SSS.Sci&SS.347 names and locates parts of the body
K.SSS.Sci&SS.348 describes a given object using the 5 basic senses
K.SSS.Sci&SS.349 displays awareness of self, i.e. hair color, age, gender, birth date, etc.
K.SSS.Sci&SS.350 identifies and describes function of community helpers, i.e. firefighters, police
K.SSS.Sci&SS.351 understands the need for rules and takes part in making some of the classroom rules
K.SSS.Sci&SS.352 demonstrates awareness of individual and cultural differences
K.SSS.Sci&SS.353 identifies 8 basic colors

GRADE:1 **SUBJECT: Art**

TOPIC: Appreciation

1.Art.App.268 discuss why they like or dislike a work of art

TOPIC: Communication

1.Art.Comm.269 communicate ideas and emotions using the art form
1.Art.Comm.270 discuss what they think the artist is trying to communicate through a work of art and explain how they arrived at their decision

TOPIC: History and Culture

1.Art.Hist&C.271 make a connection between the arts and history and culture
1.Art.Hist&C.272 explain, at a basic level, how arts are influenced by the culture in which they are created

TOPIC: Performance

1.Art.Perf.266 identify basic elements and principles of an art form, appropriate to grade level
1.Art.Perf.267 create and/or perform a basic work of art that reflects an ability to select and use the elements and principles of the form

GRADE:1 **SUBJECT: Handwriting**

TOPIC: Handwriting without Tears

1.HWr.HndWT.482 copy near point words using accurate letter formation, size upper and lower cases, spacing
1.HWr.HndWT.31 demonstrate use of appropriate posture, pencil pressure, and grip
1.HWr.HndWT.32 write letters using proper alignment, size, spacing, and formation
1.HWr.HndWT.33 writing using upper and lower case letters as directed

GRADE:1 **SUBJECT: Health**

TOPIC: Human Growth and Development

1.Hlth.HumG&D.461 identify the five senses and discuss their importance
1.Hlth.HumG&D.462 identify the major organs of the human body
1.Hlth.HumG&D.463 identify the importance of personal health

1.Hlth.HumG&D.465 demonstrate independence in personal care

TOPIC: Nutrition and Fitness

1.Hlth.NutFit.470 identify various food sources

1.Hlth.NutFit.471 describe the purpose of the food pyramid and identify the basic food groups in the pyramid

TOPIC: Safety and Prevention

1.Hlth.SafPrev.464 demonstrate proper dental care

1.Hlth.SafPrev.466 identify important safety concepts and name safe people and places to go for help

1.Hlth.SafPrev.467 identify the ways germs are spread and practice preventing their spread

1.Hlth.SafPrev.468 tell about the differences between harmful and helpful drugs

1.Hlth.SafPrev.469 identify various way of caring for the body, including maintaining personal and dental hygiene, eating nutritious foods, exercising and resting

TOPIC: Self Esteem and Family Life

1.Hlth.SEstmFL.472 demonstrate respect for self and others

GRADE:1

SUBJECT: Info. Literacy and Comp. Tech.

TOPIC: Computer Technology

1.ILCT.CmpTch.477 with assistance, use input devices (mouse, video, etc.) and output devices (monitor, printer, etc.) to operate computers, VCRs, audio tape players and other technologies

1.ILCT.CmpTch.478 with assistance, use multimedia resources (e.g., interactive books, educational software, multimedia encyclopedias)

TOPIC: Information Literacy

1.ILCT.InfoLit.28 identify parts of a book (spine, spine label, title page, table of contents)

1.ILCT.InfoLit.29 with assistance, distinguish between fiction and non-fiction

1.ILCT.InfoLit.30 frame simple questions related to a topic of interest or assignment, with assistance

1.ILCT.InfoLit.476 observe the gathering of information by communicating with others using telecommunications

1.ILCT.InfoLit.3358 with assistance, locate the copyright page and symbol

GRADE:1

SUBJECT: Language Arts/ Reading

TOPIC: Comprehension

1.LA/R.Comp.3006 use strategies before reading

1.LA/R.Comp.3007 use strategies during reading

1.LA/R.Comp.3008 use strategies after reading

1.LA/R.Comp.3009 use fiction/narrative strategies

1.LA/R.Comp.3010 use non-fiction/informational text strategies

TOPIC: Oral Reading/ Fluency

1.LA/R.OrlRF.2997 use correct pronunciation

1.LA/R.OrlRF.2998 attend to punctuation

1.LA/R.OrlRF.2999 build fluency to 40 WCPM on the first grade DIBELS Oral Reading Assessment

1.LA/R.OrlRF.3000 read the first 150 sight words from the Fry list automatically without sounding out

1.LA/R.OrlRF.3001 read 50 sounds per minute on the DIBELS Nonsense Word Fluency Assessment

TOPIC: Vocabulary

1.LA/R.Vocab.3004 understand and use content area and theme words

1.LA/R.Vocab.3005 use context clues to determine meaning

TOPIC: Word Attack

1.LA/R.WordAt.2995 use phonemic awareness skills

1.LA/R.WordAt.2996 apply phonics skills

TOPIC: Word Study

1.LA/R.WordSt.3002 be able to correctly identify nouns and verbs

1.LA/R.WordSt.3003 be able to identify compound words, synonyms and antonyms

TOPIC: **Six Traits/ Writing**

- 1.LA/W.ST/W.3019 ideas
- 1.LA/W.ST/W.3020 organization: write events in order (beginning, middle and end)
- 1.LA/W.ST/W.3021 word choice
- 1.LA/W.ST/W.3022 voice
- 1.LA/W.ST/W.3023 sentence fluency
- 1.LA/W.ST/W.3024 conventions

TOPIC: **Spelling**

- 1.LA/W.Spell.3011 correctly spell the first 50 words in the Fry list
- 1.LA/W.Spell.3012 correctly spell grade 1 Glass Analysis spelling words
- 1.LA/W.Spell.3013 use the following contractions correctly: n't, 's
- 1.LA/W.Spell.3014 use the following word endings appropriately: ed, ing, s, es, er, est, 's
- 1.LA/W.Spell.3015 apply the following rule: every word has a vowel or y

TOPIC: **Written Language Structure**

- 1.LA/W.WrLangSt.3025 write three to four related sentences with a topic sentence

TOPIC: **Communication and Problem Solving**

- 1.Ma/G.CommPS.2677 orally and in writing, explain the solution to a math problem
- 1.Ma/G.CommPS.2678 make inferences and predictions to solve story problems
- 1.Ma/G.CommPS.2679 formulate problems from daily situations, selecting appropriate strategies and materials for problem solving
- 1.Ma/G.CommPS.2681 establish and use a math vocabulary (i.e. more, less, equal, altogether, estimate), etc.)

TOPIC: **Data, Statistics and Probability**

- 1.Ma/G.DataSP.2676 create simple bar graphs, tally charts, picture graphs and simple tables

TOPIC: **Functions and Algebra**

- 1.Ma/G.FuncAlg.2675 demonstrate mastery of patterns and sorting with increasing difficulty

TOPIC: **Geometry and Measurement**

- 1.Ma/G.Geom&M.2742 write simple fractions to record information and data
- 1.Ma/G.Geom&M.2670 recite days of the week in order and possess awareness of months
- 1.Ma/G.Geom&M.2671 identify, draw and use basic geometric shapes and solids
- 1.Ma/G.Geom&M.2672 identify coins and their values
- 1.Ma/G.Geom&M.2673 tell hour and half-hour on analog and digital clocks
- 1.Ma/G.Geom&M.2674 measure for length, weight, temperature and volume using standard and non-standard tools

TOPIC: **Number and Operations**

- 1.Ma/G.Num&Ops.2662 give appropriate estimation responses
- 1.Ma/G.Num&Ops.2663 add and subtract two digit numbers without regrouping
- 1.Ma/G.Num&Ops.2664 demonstrate proficiency with number facts (addition and subtraction) through 10
- 1.Ma/G.Num&Ops.2741 demonstrate number sense to 100
- 1.Ma/G.Num&Ops.2680 use math terms and notations, e.g. +, -, =, <, >

TOPIC: **Listening**

- 1.Mus.Lis.3381 identify loud/soft, high/low, fast/slow, and short/long
- 1.Mus.Lis.3382 identify same and different, or AB form

TOPIC: **Listening and Responding to Music**

- 1.Mus.LisRM.3383 using simple vocabulary, describe and evaluate the elements of various musical selections

TOPIC: Performance

- 1.Mus.Perf.3379 perform in singing and speaking voices
- 1.Mus.Perf.3380 maintain steady beat and rhythmic patterns on a variety of pitched and non-pitched instruments

TOPIC: Theory

- 1.Mus.Theory.3534 identify and/or demonstrate simple note-reading, including quarter notes and rests, eighth notes, and half notes

GRADE:1 **SUBJECT: Physical Education**

TOPIC: Safety and Prevention

- 1.PE.SafPrev.231 arrive to class prepared for safe physical activity
- 1.PE.SafPrev.232 participate in class activities

TOPIC: Skill and Fitness

- 1.PE.SkiFit.233 demonstrate basic non-locomotor and locomotor movements in personal and general space
- 1.PE.SkiFit.234 demonstrate basic age-appropriate manipulative skills

TOPIC: Wellness and Health

- 1.PE.WellH.3220 demonstrate general value for physical activities

GRADE:1 **SUBJECT: Science**

TOPIC: Earth Science

- 1.Sci.EarSci.452 observe, describe and record weather conditions

TOPIC: Life Science

- 1.Sci.LfSci.453 define and describe a habitat

TOPIC: Physical Science

- 1.Sci.PhysSci.448 observe, describe and sort objects by their specific properties and materials
- 1.Sci.PhysSci.449 observe and describe evidence of changes in objects
- 1.Sci.PhysSci.450 investigate properties of various solid and liquid materials
- 1.Sci.PhysSci.451 make predictions and then experiment to prove or disprove those predictions, including air and water

TOPIC: Scientific Investigation

- 1.Sci.Scilnv.447 carry out experiments to test hypotheses

GRADE:1 **SUBJECT: Social Studies/General**

TOPIC: Civics

- 1.SS/G.Civ.458 identify several major national holidays
- 1.SS/G.Civ.459 explain the relationship between physical items and their symbolic representations

TOPIC: Economics

- 1.SS/G.Econ.460 identify ways in which money can be earned and how that money can be used

TOPIC: Geography

- 1.SS/G.Geog.456 identify maps as tools for locating places

TOPIC: History

- 1.SS/G.Hist.457 identify traditions, beliefs and customs of the family

TOPIC: Social Skills and Research Skills

- 1.SS/G.SSkRS.454 describe the ways in which all people are alike and some ways they may differ
- 1.SS/G.SSkRS.455 demonstrate responsible behavior in caring for the school and community environment

GRADE:2 **SUBJECT: Art**

TOPIC: Appreciation

- 2.Art.App.275 discuss why they like or dislike a work of art

TOPIC: Communication

- 2.Art.Comm.276 communicate ideas and emotions using the art form

2.Art.Comm.277 discuss what they think the artist is trying to communicate through a work of art and explain how they arrived at their decision

TOPIC: History and Culture

2.Art.Hist&C.278 make a connection between the arts and history and culture

2.Art.Hist&C.279 explain, at a basic level, how arts are influenced by the culture in which they are created

TOPIC: Performance

2.Art.Perf.273 identify basic elements and principles of an art form, appropriate to grade level

2.Art.Perf.274 create and/or perform a basic work of art that reflects an ability to select and use the elements and principles of the form

GRADE:2 **SUBJECT: Handwriting**

TOPIC: Handwriting without Tears

2.HWr.HndWT.68 in manuscript, form letters and numbers legibly, accurately, and with fluency

TOPIC: Loops and Other Groups

2.HWr.LoopOG.69 write words with appropriate sizing, spacing, and formation in manuscript

2.HWr.LoopOG.70 write all lower case cursive letters in isolation

2.HWr.LoopOG.71 write first and last name in cursive

GRADE:2 **SUBJECT: Health**

TOPIC: Community and Environment

2.Hlth.ComuE.533 identify the effects of pollution on our environment

TOPIC: Human Growth and Development

2.Hlth.HumG&D.529 label the major bones of the human body

TOPIC: Nutrition and Fitness

2.Hlth.NutFit.2465 describe the purpose of the food pyramid and identify the basic food groups in the pyramid

TOPIC: Safety and Prevention

2.Hlth.SafPrev.530 describe practices that promote well-being

2.Hlth.SafPrev.531 discuss how using alcohol, tobacco or drugs can be harmful

TOPIC: Self Esteem and Family Life

2.Hlth.SEStmFL.532 demonstrate respect for self and others

GRADE:2 **SUBJECT: Info. Literacy and Comp. Tech.**

TOPIC: Computer Technology

2.IICT.CmpTch.538 use and name input and output devices to operate computer, VCRs and other technologies

2.IICT.CmpTch.539 use multimedia resources

2.IICT.CmpTch.540 with assistance, create simple multimedia products

2.IICT.CmpTch.67 with assistance, gather information and communicate with others using telecommunications

TOPIC: Information Literacy

2.IICT.InfoLit.537 develop questions and follow-up questions to solve an information problem

2.IICT.InfoLit.64 identify the index

2.IICT.InfoLit.65 write and/or state a simple citation (author and title) to indicate an information source

2.IICT.InfoLit.3359 with assistance, demonstrate the use of the table of contents

2.IICT.InfoLit.3360 locate fiction and non-fiction sections of the library

2.IICT.InfoLit.3361 locate the copyright page and draw the copyright symbol

GRADE:2 **SUBJECT: Language Arts/ Reading**

TOPIC: Comprehension

2.LA/R.Comp.3033 use strategies before reading

2.LA/R.Comp.3034 use strategies during reading

2.LA/R.Comp.3035 use strategies after reading

2.LA/R.Comp.3036 use fiction/narrative strategies

2.LA/R.Comp.3037 use strategies for non-fiction/informational text

TOPIC: Oral Reading/ Fluency

2.LA/R.OrlRF.3026 read the first 300 sight words from the Fry list automatically

2.LA/R.OrlRF.3027 build fluency to 94 WCPM on the second grade DIBELS assessment

TOPIC: Vocabulary

2.LA/R.Vocab.3031 understand and use content area and theme words

2.LA/R.Vocab.3032 use context clues to determine meaning

TOPIC: Word Attack

2.LA/R.WordAt.3016 use phonemic awareness skills

2.LA/R.WordAt.3017 apply phonics skills

TOPIC: Word Study

2.LA/R.WordSt.3028 Identify parts of speech

2.LA/R.WordSt.3029 be able to identify compound words, synonyms, antonyms and homonyms (there/they're/their, your/you're, to/too/two)

2.LA/R.WordSt.3030 understand prefixes: dis, pre, mis, un, re

GRADE:2 SUBJECT: Language Arts/ Writing

TOPIC: Six Traits/ Writing

2.LA/W.ST/W.3057 ideas

2.LA/W.ST/W.3058 organization

2.LA/W.ST/W.3059 word choice

2.LA/W.ST/W.3061 sentence fluency

2.LA/W.ST/W.3062 voice

2.LA/W.ST/W.3063 conventions

TOPIC: Spelling

2.LA/W.Spell.3052 correctly spell the first 200 words on the Fry list

2.LA/W.Spell.3053 correctly spell grade 2 Glass Analysis spelling words

2.LA/W.Spell.3054 correctly spell the following word endings: ed, ing, s, es, er, est, 's

2.LA/W.Spell.3055 correctly spell the following contractions: 'll, 're, 'n

2.LA/W.Spell.3056 understand and use the following spelling rules

TOPIC: Written Language Structure

2.LA/W.WrLangSt.3060 sentence level

2.LA/W.WrLangSt.3078 paragraph level to include topic sentence, body, and closing sentence

2.LA/W.WrLangSt.3080 report level to include introduction, body, and conclusion

GRADE:2 SUBJECT: Math/General

TOPIC: Communication and Problem Solving

2.Ma/G.CommPS.2658 communicate mathematical ideas and solutions orally and in writing

2.Ma/G.CommPS.2659 introduce the use of clue words in addition and subtraction (i.e. altogether, in all)

2.Ma/G.CommPS.2740 solve word problems that require addition and subtraction with regrouping

2.Ma/G.CommPS.2744 understand and apply multiple strategies to solve problems

2.Ma/G.CommPS.2749 use correct mathematical vocabulary and notations, including equating \$ to (cents), division, - and x

TOPIC: Data, Statistics and Probability

2.Ma/G.DataSP.2727 sort and classify objects according to their attributes and organize data about the object

2.Ma/G.DataSP.2750 create and interpret graphs

2.Ma/G.DataSP.2987 use probability to predict the outcomes of simple experiments

TOPIC: Functions and Algebra

- 2.Ma/G.FuncAlg.2728 identify and extend a variety of patterns representing sequences by extending the patterns
- 2.Ma/G.FuncAlg.2739 compute for missing 1-digit addends to 20

TOPIC: Geometry and Measurement

- 2.Ma/G.Geom&M.2746 read and write time on an analog and digital clock
- 2.Ma/G.Geom&M.2748 sort and classify objects according to their attributes and organize data about the objects
- 2.Ma/G.Geom&M.2724 demonstrate knowledge of the value of money to \$2.00
- 2.Ma/G.Geom&M.2731 write date in various forms
- 2.Ma/G.Geom&M.2737 measure length, volume, temperature, distance and weight using standard tools
- 2.Ma/G.Geom&M.2738 find information from a calendar

TOPIC: Number and Operations

- 2.Ma/G.Num&Ops.2743 demonstrate number sense to one thousand
- 2.Ma/G.Num&Ops.2745 use subtraction to verify addition results and addition to verify subtraction results
- 2.Ma/G.Num&Ops.2716 identify numbers $<$, $>$, $=$, \neq to hundreds
- 2.Ma/G.Num&Ops.2725 identify place value in the 1 s, 10 s, and 100 s
- 2.Ma/G.Num&Ops.2726 estimate answers where an exact response is not necessary
- 2.Ma/G.Num&Ops.2729 demonstrate knowledge and understanding of a fact family
- 2.Ma/G.Num&Ops.2730 demonstrate proficiency with number facts to 20
- 2.Ma/G.Num&Ops.2732 identify and explain odd and even numbers
- 2.Ma/G.Num&Ops.2733 demonstrate expanded notations to 999
- 2.Ma/G.Num&Ops.2734 identify and compare fractions
- 2.Ma/G.Num&Ops.2735 add and subtract with regrouping to the 100 s place
- 2.Ma/G.Num&Ops.2736 describe multiplication as repeated addition and division as repeated subtraction

GRADE:2 SUBJECT: Music

TOPIC: Appreciation

- 2.Mus.App.3390 compare and contrast elements of two musical selections

TOPIC: Listening

- 2.Mus.Lis.3387 identify AB and ABA forms

TOPIC: Listening and Responding to Music

- 2.Mus.LisRM.3388 describe and evaluate a variety of musical performances

TOPIC: Performance

- 2.Mus.Perf.3384 demonstrate proper posture while singing or speaking
- 2.Mus.Perf.3385 maintain steady beat and rhythmic patterns on a variety of pitched and non-pitched instruments in solo and soli fashion
- 2.Mus.Perf.3386 improvise rhythms and movements to music and dramatic play

TOPIC: Theory

- 2.Mus.Theory.3389 identify and/or demonstrate basic note-reading, including quarter notes and rests, eighth notes, half notes, and whole notes

GRADE:2 SUBJECT: Physical Education

TOPIC: Safety and Prevention

- 2.PE.SafPrev.235 arrive to class prepared for safe physical activity
- 2.PE.SafPrev.239 demonstrate responsible personal and social behavior in games and activities
- 2.PE.SafPrev.240 demonstrate understanding and respect for the differences in performance among one's peers during games and activities

TOPIC: Skill and Fitness

- 2.PE.SkiFit.237 demonstrate basic non-locomotor and locomotor movements in personal and general space
- 2.PE.SkiFit.238 demonstrate age-appropriate manipulative skills

TOPIC: Wellness and Health

2.PE.WellH.3221 demonstrate value for physical activity

2.PE.WellH.236 participate in class activities

GRADE:2 **SUBJECT: Science**

TOPIC: Life Science

2.Sci.LfSci.520 observe, identify, record and discuss stages in life cycles of various animals (i.e., butterflies, frogs, chickens)

TOPIC: Life Science, Geometry and Measurement

2.Sci.LfSciGM.519 measure, record and discuss growth of various plants and animals

TOPIC: Physical Science

2.Sci.PhysSci.516 identify systems of interacting objects

2.Sci.PhysSci.517 find and describe evidence of interactions

2.Sci.PhysSci.518 construct an operating electric circuit

TOPIC: Scientific Investigation

2.Sci.Scilnv.513 develop an operational definition of an experiment

2.Sci.Scilnv.514 describe changes that occur during an experiment

2.Sci.Scilnv.515 make predictions, carry out experiments and write reports of experiments

GRADE:2 **SUBJECT: Social Studies/General**

TOPIC: Civics

2.SS/G.Civ.527 explain the concept of voting and the importance of citizens participating in elections

TOPIC: Economics

2.SS/G.Econ.528 explain how a community uses its resources to meet the needs of its citizens

TOPIC: Geography

2.SS/G.Geog.523 locate community places on a map

2.SS/G.Geog.524 locate major physical features on a map

2.SS/G.Geog.525 identify a variety of customs, traditions and beliefs within a community

TOPIC: History

2.SS/G.Hist.526 identify several major individuals in American history

TOPIC: Social Skills and Research Skills

2.SS/G.SSkRS.521 describe some cultural differences and similarities in people

TOPIC: Social Skills and Research Skills, Self-esteem

2.SS/G.SSkRSSE.522 accept responsibility for personal actions and describe possible consequences of one's actions

GRADE:3 **SUBJECT: Art**

TOPIC: Appreciation

3.Art.App.282 discuss why they like or dislike a work of art

TOPIC: Communication

3.Art.Comm.283 communicate ideas and emotions using the art form

3.Art.Comm.284 discuss what they think the artist is trying to communicate through a work of art and explain how they arrived at their decision

TOPIC: History and Culture

3.Art.Hist&C.285 make a connection between the arts and history and culture

3.Art.Hist&C.286 explain, at a basic level, how arts are influenced by the culture in which they are created

TOPIC: Performance

3.Art.Perf.280 identify basic elements and principles of an art form, appropriate to grade level

3.Art.Perf.281 create and/or perform a basic work of art that reflects an ability to select and use the elements and principles of the form

GRADE:3 **SUBJECT: Handwriting**

TOPIC: Loops and Other Groups

3.HWr.LoopOG.101	write all upper and lower case letters in cursive, using appropriate formation, size spacing, and base line
3.HWr.LoopOG.102	connect all cursive letters into words
3.HWr.LoopOG.103	write words in isolation in cursive
3.HWr.LoopOG.104	write sentences incursive using appropriate spacing between words, and using upper and lower case letters
3.HWr.LoopOG.105	use cursive writing for all language arts activities
3.HWr.LoopOG.106	read isolated high frequency words (calendar, homework assignments, spelling words, Daily Oral Language) in cursive

GRADE:3

SUBJECT: Health

TOPIC: Community and Environment, Self-esteem and Family Life

3.Hlth.ComuE-SE.604	explain importance of group cooperation and demonstrate the ability to work cooperatively
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TOPIC: Human Growth and Development, Life Science

3.Hlth.HumG&DLS.595	identify and describe the major organs of the respiratory system
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TOPIC: Nutrition and Fitness

3.Hlth.NutFit.601	describe how good nutrition is essential to good health
3.Hlth.NutFit.602	describe how regular physical activity is essential to good health

TOPIC: Safety and Prevention

3.Hlth.SafPrev.596	identify health as an important value and demonstrate practices that promote well-being
3.Hlth.SafPrev.597	explain how to prevent the spread of disease
3.Hlth.SafPrev.598	distinguish between safe and unsafe situations
3.Hlth.SafPrev.599	explain the relationship between health and drugs
3.Hlth.SafPrev.600	distinguish between medicinal and non-medicinal drugs

TOPIC: Self Esteem and Family Life

3.Hlth.SEstmFL.603	identify friends, family members or other trusted people to consult for advice and help
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GRADE:3

SUBJECT: Info. Literacy and Comp. Tech.

TOPIC: Computer Technology

3.ILCT.CmpTch.610	identify basic components of a computer
3.ILCT.CmpTch.611	demonstrate proper handling and use of computers
3.ILCT.CmpTch.612	identify proper start-up and termination procedures on a computer
3.ILCT.CmpTch.613	identify proper start-up and termination procedures for various software applications
3.ILCT.CmpTch.614	demonstrate basic knowledge of a computer keyboard
3.ILCT.CmpTch.615	create, edit, save and print a word processed document
3.ILCT.CmpTch.616	with assistance, create a multimedia presentation

TOPIC: Information Literacy

3.ILCT.InfoLit.98	identify a variety of information sources - books, periodicals, electronic resources, internet
3.ILCT.InfoLit.100	with assistance, identify the need for information when solving a problem
3.ILCT.InfoLit.608	with assistance, use alphabetical indices or menus to access print and electronic resources
3.ILCT.InfoLit.3362	with assistance, locate and retrieve print materials in the library (fiction, non-fiction, reference and biography)
3.ILCT.InfoLit.3363	demonstrate the use of the table of contents
3.ILCT.InfoLit.3364	demonstrate the use of an atlas, dictionary and encyclopedia
3.ILCT.InfoLit.3365	with assistance, identify keywords in order to locate information
3.ILCT.InfoLit.3366	with assistance, complete a bibliography card
3.ILCT.InfoLit.3367	with assistance, identify keywords and phrases to record information (note taking)

GRADE:3

SUBJECT: Language Arts/ Reading

TOPIC: Comprehension

- 3.LA/R.Comp.3077 use strategies before reading
- 3.LA/R.Comp.3079 use strategies during reading
- 3.LA/R.Comp.3081 use strategies after reading
- 3.LA/R.Comp.3082 use fiction/ narrative strategies
- 3.LA/R.Comp.3083 use strategies for non-fiction/informational text

TOPIC: Oral Reading/ Fluency

- 3.LA/R.OrlRF.3068 read the first 500 words on the Fry list automatically
- 3.LA/R.OrlRF.3069 build fluency to 114 WCPM on the third grade DIBELS assessment

TOPIC: Vocabulary

- 3.LA/R.Vocab.3074 understand and use content area and theme words
- 3.LA/R.Vocab.3075 use context clues to determine meaning
- 3.LA/R.Vocab.3076 understand multiple-meaning words

TOPIC: Word Attack

- 3.LA/R.WordAt.3064 use knowledge of sounds to decode unknown words
- 3.LA/R.WordAt.3065 identify syllable types (CVC - closed syllable, CV - open syllable, CVCe - silent e, r-controlled)
- 3.LA/R.WordAt.3066 use hyphens correctly
- 3.LA/R.WordAt.3067 use word endings correctly: man, er, or, en, tion, sion

TOPIC: Word Study

- 3.LA/R.WordSt.3070 identify parts of speech
- 3.LA/R.WordSt.3071 identify compound words, synonyms, and antonyms
- 3.LA/R.WordSt.3072 understands prefixes: ex, uni, bi, tri, after, post, mid, out, over, super
- 3.LA/R.WordSt.3073 identify root words

GRADE:3 SUBJECT: Language Arts/ Writing

TOPIC: Six Traits/ Writing

- 3.LA/W.ST/W.3167 ideas
- 3.LA/W.ST/W.3168 organization
- 3.LA/W.ST/W.3169 word choice
- 3.LA/W.ST/W.3170 sentence fluency
- 3.LA/W.ST/W.3171 voice
- 3.LA/W.ST/W.3172 conventions

TOPIC: Spelling

- 3.LA/W.Spell.3084 correctly spell the first 300 words on the Fry List
- 3.LA/W.Spell.3085 correctly spell grade 3 Glass Analysis spelling words
- 3.LA/W.Spell.3086 correctly spell the following contractions: 've, 'd
- 3.LA/W.Spell.3087 understand and use the following spelling rules:

TOPIC: Written Language Structure

- 3.LA/W.WrLangSt.3173 paragraph level: write a paragraph with a topic sentence, main idea and details, and a conclusion
- 3.LA/W.WrLangSt.3174 story level
- 3.LA/W.WrLangSt.3175 report level: include intro, body with ideas grouped logically, and a conclusion

GRADE:3 SUBJECT: Math/General

TOPIC: Communication and Problem Solving

- 3.Ma/G.CommPS.2714 apply and adapt a variety of appropriate strategies to solve word problems
- 3.Ma/G.CommPS.2715 communicate mathematical thinking coherently and clearly both orally and in writing and be able to justify results

TOPIC: Data, Statistics and Probability

- 3.Ma/G.DataSP.2713 predict the probability of outcomes of simple experiments and test the predictions using common vocabulary: certain, equally likely, less likely, unlikely, most likely
- 3.Ma/G.DataSP.2723 interpret and construct representations of data

TOPIC: Functions and Algebra

- 3.Ma/G.FuncAlg.2695 identify and describe patterns that involve numbers and shapes
- 3.Ma/G.FuncAlg.2721 identify properties such as commutative and associative, and identify and use them to compute in addition, subtraction and multiplication
- 3.Ma/G.FuncAlg.2722 express mathematical relationships using equations and represent a variable as an unknown using a letter or a symbol ($2 + n = 7$)

TOPIC: Geometry and Measurement

- 3.Ma/G.Geom&M.2704 identify and distinguish basic geometric shapes: triangles, squares, rectangles, rectangles, rhombi, trapezoids, hexagons, circles, diamond, parallelogram (polygons) and create new figures using basic shapes
- 3.Ma/G.Geom&M.2705 describe attributes of angles: number of angles in a figure; identify acute angles, right angles obtuse angles
- 3.Ma/G.Geom&M.2706 identify, describe and construct congruent figures using models or other representations
- 3.Ma/G.Geom&M.2707 identify and describe symmetrical figures and recognize multiple lines of symmetry
- 3.Ma/G.Geom&M.2708 identify, describe and construct solid geometric shapes and identify properties of these shapes (cylinders, cones, cubes, spheres, pyramids, faces or sides, edges, corners or angles)
- 3.Ma/G.Geom&M.2709 understand the attributes of area and perimeter and express the appropriate type of measurement for measuring each attribute using a variety of models, manipulatives and grids
- 3.Ma/G.Geom&M.2710 identify, describe and use the various components of a clock and using the components for telling time: minute, half-hour, quarter-hour, elapsed time, AM, PM
- 3.Ma/G.Geom&M.2711 appropriately and consistently make conversions within the systems: inch to foot, centimeter to meter, quart to gallon, gram to kilogram, ounce to pound
- 3.Ma/G.Geom&M.2712 estimate and use appropriately units of measure: customary and metric
- 3.Ma/G.Geom&M.2718 read a thermometer in Celsius and Fahrenheit to 1 degree
- 3.Ma/G.Geom&M.2719 interpret and apply calendar skills
- 3.Ma/G.Geom&M.2720 demonstrate knowledge of the value of a collection of money

TOPIC: Number and Operations

- 3.Ma/G.Num&Ops.2696 describe or illustrate the relationship between operations: the inverse relationship between addition and subtraction by using models, number lines or representations
- 3.Ma/G.Num&Ops.2697 understand the place value number system (base ten) from 0-999 through standard and expanded form, equivalencies, comparisons, estimating, and rounding by using models, explanations or other representations
- 3.Ma/G.Num&Ops.2698 describe or illustrate the relationship between operations such as repeated addition and multiplication and repeated subtraction and division, inverse relationships multiplication and division and arrays and multiplication
- 3.Ma/G.Num&Ops.2699 accurately compute multiplication and division facts as demonstrated on a timed test (through the five's test)
- 3.Ma/G.Num&Ops.2700 understand the place value structure of the base ten number system through: representing and comparing whole numbers and decimals(10ths and 100ths); relationship of decimals to money; relationship of decimals to common fractions
- 3.Ma/G.Num&Ops.2701 use a variety of mental computation, estimation techniques and measurement skills to solve problems or equations
- 3.Ma/G.Num&Ops.2702 order, compare, add and subtract common fractions with like denominators and identify equivalent forms of fractions
- 3.Ma/G.Num&Ops.2703 order and compare decimals (tenths, hundredths)
- 3.Ma/G.Num&Ops.2660 accurately compute addition and subtraction math facts (0-18) as demonstrated on a timed test
- 3.Ma/G.Num&Ops.2661 accurately compute addition and subtraction problems with regrouping (numbers up to three digits). Demonstrate strategies using manipulatives such as base ten blocks

3.Mus.Hist.3398 recognize the basic purpose music has served in our culture

TOPIC: Listening

3.Mus.Lis.3394 identify AB, ABA, and Rondo forms

TOPIC: Listening and Responding to Music

3.Mus.LisRM.3395 describe and evaluate the elements of musical selections using appropriate terminology

TOPIC: Performance

3.Mus.Perf.3391 demonstrate proper vocal technique while singing or speaking using ostinati, partner songs and rounds

3.Mus.Perf.3392 maintain steady beat and rhythmic patterns on a variety of classroom instruments with ensemble playing

3.Mus.Perf.3393 further develop improvised rhythms and movement to music

TOPIC: Theory

3.Mus.Theory.3396 identify and/or demonstrate basic note-reading, including quarter notes and rests, eighth notes, half notes, whole notes, and sixteenth notes, and recognize the lines and spaces of the treble clef

3.Mus.Theory.3397 identify time signatures in 2/4, 3/4, and 4/4 time

GRADE:3 **SUBJECT: Physical Education**

TOPIC: Safety and Prevention

3.PE.SafPrev.3248 arrive to class prepared for safe physical activity

3.PE.SafPrev.244 demonstrate responsible personal and social behavior in games and activities

TOPIC: Skill and Fitness

3.PE.SkiFit.242 demonstrate basic non-locomotor and locomotor movements in personal and general space

3.PE.SkiFit.243 demonstrate age-appropriate manipulative skills

3.PE.SkiFit.246 use locomotor, non-locomotor, manipulative and social skills in low organized games

TOPIC: Wellness and Health

3.PE.WellH.3222 demonstrate value for physical activity

3.PE.WellH.241 participate in class activities

3.PE.WellH.245 demonstrate understanding and respect for the differences in performance among one's peers during games and activities

GRADE:3 **SUBJECT: Science**

TOPIC: Atmosphere, Climate, and Weather

3.Sci.AtmCIWea.5029 Based on data collected from daily weather observations, describe weather changes or weather patterns.

TOPIC: Classification

3.Sci.Clssfcn.5039 Sort/Classify different living things using similar and different characteristics. Describe why organisms belong to each group or cite

TOPIC: Earth, Sun & Moon

3.Sci.ErthSnMn.5032 Recognize that the Earth is part of a system called the solar system that includes the sun, moons, and planets.

3.Sci.ErthSnMn.5033 Recognize and discuss Earth's changes as it orbits, rotates and tilts on its axis (i.e. seasons, day and night)

TOPIC: Energy

3.Sci.Energy.5041 Given a specific example or illustration (e.g., simple closed circuit, rubbing hands together) predict the observable effects of energy (i.e., light bulb lights, a bell rings, hands warm up) (E.g., a test item might ask, "what will happen when . . .?")

TOPIC: Forces

3.Sci.Forces.5038 Use observations of magnets in relation to other objects to describe the properties of magnetism (i.e., attract or repel certain objects or has no effect)

TOPIC: Human Identity

3.Sci.HmnlDnty.5037 Identify what the physical structures of humans do (e.g., sense organs - eyes, ears, skin, etc.)

TOPIC: Living Things & Organization

3.Sci.LvgThOrg.5034 Identify the basic needs of plants and animals in order to stay alive (i.e. water, air, food, space).

TOPIC: Processes & Rates of Change

3.Sci.PrRtsChg.5031 Explain how wind, water, or ice shape and reshape the Earth's surface.

TOPIC: Properties

3.Sci.Proprtes.5040 Make a prediction about what might happen to the state of common materials when heated or cooled or categorize materials as solid, liquid, or gas

3.Sci.Proprtes.5042 Recognize that substances can be classified by their observable properties

TOPIC: Recycling of Materials

3.Sci.RclngMat.5036 Describe ways plants and animals depend on each other (e.g., shelter, nesting, food).

TOPIC: Reproduction

3.Sci.Reprod.5035 Predict, sequence, or compare the life stages of organisms - plants and animals (e.g. put images of life stages of an organism in order, predict the next stage in sequence, and compare two organisms)

GRADE:3

SUBJECT: Social Studies/General

TOPIC: Civics

3.SS/G.Civ.592 discuss major current events

TOPIC: Economics and Math

3.SS/G.EconM.594 explain the purpose of and create a simple budget (incorporating basic math skills)

TOPIC: Geography

3.SS/G.Geog.588 use, at a basic level, maps and globes to identify continents, oceans and the equator; locate major countries, states and cities; and determine directionality

TOPIC: History

3.SS/G.Hist.589 identify and discuss American heroes

3.SS/G.Hist.590 describe an ancient civilization, including its location, people, daily life, culture, contributions and time in history

3.SS/G.Hist.591 describe medieval times, including location, people, daily life, culture, contributions and time in history

TOPIC: Social Skills and Research Skills

3.SS/G.SSkRS.593 demonstrate a respect and responsibility toward self and others

TOPIC: Social Skills and Research Skills, Data Analysis

3.SS/G.SSkRSDA.586 collect and organize data into graphs and charts

TOPIC: Social Skills and Research Skills, Information Literacy

3.SS/G.SSkRSIL.587 locate information from a variety of resources

TOPIC: Social Skills and Research Skills, Writing, Listening, Information Literacy

3.SS/G.SSkRSWL.585 create and provide a simple oral and written presentation of a research project

GRADE:4

SUBJECT: Art

TOPIC: Appreciation

4.Art.App.289 explain how various inventions contribute to the development of a work of art

TOPIC: Communication

4.Art.Comm.290 identify which elements and principles were utilized and stressed in the development of a work of art

4.Art.Comm.291 use a variety of skills, elements and principles to communicate ideas, emotions, experiences, and stories

TOPIC: History and Culture

4.Art.Hist&C.292 compare at a basic level, the characteristics of artworks in various eras and cultures

TOPIC: Performance

4.Art.Perf.287 identify basic elements and principles of an art form, appropriate to grade level

4.Art.Perf.288 create and/or perform a basic work of art that reflects an ability to select and use the elements and principles of the form

GRADE:4

SUBJECT: Handwriting

TOPIC: Loops and Other Groups

- 4.HWr.LoopOG.172 read cursive writing
- 4.HWr.LoopOG.173 transcribe from manuscript to cursive and cursive to manuscript
- 4.HWr.LoopOG.174 use cursive in all disciplines

GRADE:4 **SUBJECT: Health**

TOPIC: Community and Environment

- 4.Hlth.ComuE.161 interact with the community and environment in a manner which protects, preserves and improves the surroundings

TOPIC: Human Growth and Development

- 4.Hlth.HumG&D.154 discuss the various physical, social and emotional changes that occur as children enter preadolescence

TOPIC: Nutrition and Fitness

- 4.Hlth.NutFit.158 relate good nutrition to total wellness
- 4.Hlth.NutFit.159 demonstrates the importance of good personal hygiene habits

TOPIC: Nutrition and Fitness: Self-esteem and Family Life

- 4.Hlth.NutFitSE.160 describe how to build/maintain healthy friendships & family relationships

TOPIC: Safety and Prevention

- 4.Hlth.SafPrev.155 identify common symptoms and respond appropriately to types of stress
- 4.Hlth.SafPrev.156 describe common emergency situations and describe appropriate responses
- 4.Hlth.SafPrev.157 distinguish between harmful and helpful substances

GRADE:4 **SUBJECT: Info. Literacy and Comp. Tech.**

TOPIC: Computer Technology

- 4.ILCT.CmpTch.2485 electronically edit and revise word-processed documents
- 4.ILCT.CmpTch.166 save and locate files
- 4.ILCT.CmpTch.168 with assistance, use spreadsheets to organize data and create graphs
- 4.ILCT.CmpTch.169 with assistance, use a simple database
- 4.ILCT.CmpTch.170 create a simple multimedia presentation that includes text, graphics and sound
- 4.ILCT.CmpTch.171 demonstrate proper keyboarding techniques

TOPIC: Information Literacy

- 4.ILCT.InfoLit.164 brainstorm to develop a set of questions, which are carefully aligned and focused on a designated main idea
- 4.ILCT.InfoLit.165 demonstrate the ability to locate specific information from a variety of resources
- 4.ILCT.InfoLit.3368 identify the appropriate sources of information
- 4.ILCT.InfoLit.3369 access information from print, non-print, and/or electronic resources
- 4.ILCT.InfoLit.3370 demonstrate the use of an index on a print resource
- 4.ILCT.InfoLit.3371 identify keywords for locating information
- 4.ILCT.InfoLit.3372 with assistance, identify keywords and phrases to record information (note taking)

GRADE:4 **SUBJECT: Language Arts/ Reading**

TOPIC: Comprehension

- 4.LA/R.Comp.3150 use strategies before reading
- 4.LA/R.Comp.3204 use strategies during reading
- 4.LA/R.Comp.3205 use strategies after reading
- 4.LA/R.Comp.3206 use fiction/ narrative strategies
- 4.LA/R.Comp.3207 use strategies for non-fiction/informational text

TOPIC: Oral Reading/ Fluency

- 4.LA/R.OrlRF.3141 build oral fluency to 118 WCPM on the fourth grade level material while attending to punctuation

TOPIC: Vocabulary

- 4.LA/R.Vocab.3147 understand and use content area and theme words
- 4.LA/R.Vocab.3148 use context clues to determine meaning
- 4.LA/R.Vocab.3149 understand multiple-meaning words, and shades of meaning

TOPIC: Word Attack

- 4.LA/R.WordAt.3038 use knowledge of sounds to decode unknown words
- 4.LA/R.WordAt.3088 identify six syllable types (CVC - closed syllable, CV - open syllable, CVCe - silent e, r-controlled, CVVC - long vowel pair, Cle - consonant followed by 'le')
- 4.LA/R.WordAt.3140 use hyphens correctly

TOPIC: Word Study

- 4.LA/R.WordSt.3142 identify parts of speech: nouns, pronouns, verbs, adjectives, adverbs, prepositions
- 4.LA/R.WordSt.3143 identify synonyms, antonyms, homonyms
- 4.LA/R.WordSt.3144 understands prefixes: im, in, pro, con, sub
- 4.LA/R.WordSt.3145 identify root words
- 4.LA/R.WordSt.3146 understand suffixes: tion, sion, ish, less, ment, ful, ly, able

GRADE:4 **SUBJECT: Language Arts/ Writing**

TOPIC: Six Traits/ Writing

- 4.LA/W.ST/W.3181 ideas
- 4.LA/W.ST/W.3182 organization
- 4.LA/W.ST/W.3183 word choice
- 4.LA/W.ST/W.3184 sentence fluency
- 4.LA/W.ST/W.3185 voice
- 4.LA/W.ST/W.3186 conventions

TOPIC: Spelling

- 4.LA/W.Spell.3176 grade 4 spelling curriculum

TOPIC: Written Language Structure

- 4.LA/W.WrLangSt.3187 paragraph level: write a paragraph with a topic sentence, main idea, and details, and a conclusion
- 4.LA/W.WrLangSt.3188 story level
- 4.LA/W.WrLangSt.3189 report level

GRADE:4 **SUBJECT: Math/General**

TOPIC: Communication and Problem Solving

- 4.Ma/G.CommPS.2654 use mental computation techniques to solve problems
- 4.Ma/G.CommPS.2655 solve problems that require the use of multi-step strategies
- 4.Ma/G.CommPS.2656 verify results and discuss the reasonableness of the solution
- 4.Ma/G.CommPS.2657 communicate mathematical ideas, processes and solutions to problems orally and in writing

TOPIC: Data, Statistics and Probability

- 4.Ma/G.DataSP.2651 collect data and construct, interpret and analyze bar, pie, and line graphs
- 4.Ma/G.DataSP.2652 find the median, mode, or range for a given set of data and analyze patterns and trends
- 4.Ma/G.DataSP.2653 describe a probability as likely, unlikely, impossible, or certain and use a fraction to express the probability of an event

TOPIC: Functions and Algebra

- 4.Ma/G.FuncAlg.3208 graph ordered pairs
- 4.Ma/G.FuncAlg.3209 multiply 3 factors using properties of multiplication (commutative and associative)
- 4.Ma/G.FuncAlg.3210 find perimeter, area, and volume using a formula
- 4.Ma/G.FuncAlg.3211 write equations for word sentences
- 4.Ma/G.FuncAlg.2648 identify, represent, and analyze patterns and functions and write a rule in words or symbols

- 4.Ma/G.FuncAlg.2649 demonstrate understanding of algebraic expressions by using letters or symbols to represent unknown quantities
- 4.Ma/G.FuncAlg.2650 demonstrate understanding of equality by showing equivalence between two expressions

TOPIC: Geometry and Measurement

- 4.Ma/G.Geom&M.2642 estimate capacity using liters, quarts, and gallons
- 4.Ma/G.Geom&M.2643 name, describe, and construct two and three dimensional shapes
- 4.Ma/G.Geom&M.2644 identify, describe, and draw models of rays, parallel and perpendicular lines, and a variety of angles
- 4.Ma/G.Geom&M.2645 demonstrate understanding of congruent and similar figures through models, drawings, or writing
- 4.Ma/G.Geom&M.2646 estimate, measure, and demonstrate understanding of perimeter and area of rectangles, polygons, or irregular shapes
- 4.Ma/G.Geom&M.2647 uses units of measure and makes conversions within the customary and metric systems when solving problems

TOPIC: Number and Operations

- 4.Ma/G.Num&Ops.3212 multiply 2 or 3 digit numbers by a 1 digit number
- 4.Ma/G.Num&Ops.3213 multiply 2 or 3 digit number by a 2 digit number
- 4.Ma/G.Num&Ops.3214 multiply money by a 1 or 2 digit number
- 4.Ma/G.Num&Ops.3215 divide with remainders
- 4.Ma/G.Num&Ops.3216 interpret remainders
- 4.Ma/G.Num&Ops.3217 divide up to a 3 digit number (including money) by a 1 digit number
- 4.Ma/G.Num&Ops.3218 use divisibility rules to determine mentally if a number is divisible by 2, 3, 5, 9, or 10
- 4.Ma/G.Num&Ops.3219 find average or mean
- 4.Ma/G.Num&Ops.2637 demonstrate mastery of multiplication and division facts with factors less than or equal to 12
- 4.Ma/G.Num&Ops.2638 demonstrate whole number sense to one million using models, explanations, or other representations
- 4.Ma/G.Num&Ops.2639 demonstrate understanding of the inverse relationship between multiplication and division of whole numbers as well as understanding of the relationship between repeated subtraction and division
- 4.Ma/G.Num&Ops.2640 add and subtract decimals and simple fractions with like and unlike denominators as well as demonstrate the understanding of place value with respect to fractions and decimals
- 4.Ma/G.Num&Ops.2641 convert simple fractions to decimals and decimals to fractions

GRADE:4 **SUBJECT: Music**

TOPIC: History

- 4.Mus.Hist.3406 identify and compare the music of various cultures

TOPIC: Knowledge

- 4.Mus.Kn.3404 identify and categorize instruments by family

TOPIC: Listening

- 4.Mus.Lis.3402 recognize AB, ABA, Rondo, and Call and Response forms
- 4.Mus.Lis.3403 describe and evaluate elements of musical selections, including instrument recognition

TOPIC: Performance

- 4.Mus.Perf.3399 demonstrate proper vocal technique while using ostinati, partner songs, rounds, and simple two-part harmony
- 4.Mus.Perf.3400 develop and apply musical skills through recorder performance
- 4.Mus.Perf.3401 improvise rhythms and melodies on classroom instruments

TOPIC: Theory

- 4.Mus.Theory.3405 identify and demonstrate basic note-reading, including quarter notes and rests, eighth notes, half notes and rests, and whole notes and rests, and recognize the notes of the treble clef

GRADE:4 **SUBJECT: Physical Education**

TOPIC: Safety and Prevention

- 4.PE.SafPrev.247 arrive to class prepared for safe physical activity
- 4.PE.SafPrev.251 demonstrate responsible personal and social behavior in games and activities
- TOPIC: Skill and Fitness**
- 4.PE.SkiFit.250 perform age-appropriate manipulative skills
- 4.PE.SkiFit.253 use locomotor, non-locomotor, manipulative and social skills in low organized games
- 4.PE.SkiFit.254 identify the benefits derived from regular physical activity

TOPIC: Social Interaction

- 4.PE.SocInt.255 work cooperatively and productively with a partner and/or small group

TOPIC: Wellness and Health

- 4.PE.WellH.248 participate in class activities
- 4.PE.WellH.252 demonstrate understanding and respect for the differences in performance among one's peers during games and activities

GRADE:4 SUBJECT: Science

TOPIC: Atmosphere, Climate, and Weather

- 4.Sci.AtmClWea.5043 Explain how the use of scientific tools helps to extend sense and gather data about weather. (i.e., weather/wind vane: direction; wind sock: wind intensity; anemometer: speed; thermometer: temperature; meter sticks/rulers: snow depth; rain gauges: rain amount in inches).

TOPIC: Change

- 4.Sci.Change.5050 Using information (data or scenario), explain how changes in the environment can cause organisms to respond (e.g., survive there and reproduce, move away, die).

TOPIC: Composition

- 4.Sci.Comp.5052 Use measures of weight (data) to demonstrate that the whole equals the sum of its parts.
- 4.Sci.Comp.5053 Collect and organize data about physical properties in order to classify objects or draw conclusions about objects and their characteristic properties (e.g., temperature, color, size, shape, weight, texture, flexibility).
- 4.Sci.Comp.5057 Design and carry out a controlled experiment that has, as the variable, one particular environmental factor (Londonderry # 4.225)

TOPIC: Composition & Features of Earth Materials

- 4.Sci.CmFtsErM.5044 Given information about Earth materials, explain how their characteristics lend themselves to specific uses.
- 4.Sci.CmFtsErM.5045 Given certain Earth materials (soils, rocks, or minerals) use physical properties to sort, classify, and/or describe them.

TOPIC: Energy

- 4.Sci.Energy.5054 Use observations of light in relation to other objects/substances to describe the properties of light (can be reflected, refracted, or absorbed)
- 4.Sci.Energy.5055 Experiment, observe, or predict how heat might move from one object to another.

TOPIC: Flow of Energy and Recycling of

- 4.Sci.FlWEnRcl.5049 Recognize that energy is needed for all organisms to stay alive and grow or identify where a plant or animal gets its energy

TOPIC: Human Identity

- 4.Sci.HmnlDnty.5051 Distinguish between characteristics of humans that are inherited from parents (i.e., hair color, height, skin color, eye color) and others that are learned (e.g., riding a bike, singing a song, playing a game, reading).

TOPIC: Living Things & Organization

- 4.Sci.LvgThOrg.5048 Identify and explain how the physical structures of an organism (plants or animals) allow it to survive in its habitat/environment (e.g., roots for water; nose to smell fire).

TOPIC: Motion

- 4.Sci.Motion.5056 Use data to predict how a change in force (greater/less) might affect the position, direction of motion, or speed of an object (e.g., ramps and balls)

TOPIC: Rock Cycle

- 4.Sci.RckCycle.5046 Use results from an experiment to draw conclusions about how water interacts with earth materials (e.g., percolation, erosion, frost heaves).

TOPIC: Tools

GRADE:4**SUBJECT: Social Studies/General**

TOPIC: Civics

- 4.SS/G.Civ.3223 explore current events in the US regions
- 4.SS/G.Civ.150 explain structure of local and state government and the responsibilities of an involved citizen

TOPIC: Economics

- 4.SS/G.Econ.153 explain major changes in New Hampshire's economy from colonial times to the present
- 4.SS/G.Econ.3224 explore economic base of US regions including NH

TOPIC: Geography

- 4.SS/G.Geog.144 explain and use symbols, legends and coordinates
- 4.SS/G.Geog.145 use a map to locate the New England states and locations in New Hampshire
- 4.SS/G.Geog.146 describe the New Hampshire lifestyle and explain how the geography of New Hampshire affects that lifestyle
- 4.SS/G.Geog.3225 describe the physical processes that shaped NH's land form
- 4.SS/G.Geog.3226 understand the concept of regions and use a map to locate each US region
- 4.SS/G.Geog.3227 understand how geographical features impact regional lifestyles

TOPIC: History

- 4.SS/G.Hist.3228 understand and interpret time in years, decades and centuries through the use of time lines
- 4.SS/G.Hist.3229 explore the history of US regions
- 4.SS/G.Hist.147 explain impact of Native Americans on the history/culture of New England
- 4.SS/G.Hist.148 compare and contrast the colonial period (prior to American Revolution) of New Hampshire with regard to various aspects of daily living
- 4.SS/G.Hist.149 explain the contributions of famous New Hampshire people including early explorers

GRADE:5**SUBJECT: Art**

TOPIC: Appreciation

- 5.Art.App.295 explain how various inventions contribute to the development of a work of art

TOPIC: Communication

- 5.Art.Comm.296 identify which elements and principles were utilized and stressed in the development of a work of art
- 5.Art.Comm.297 use a variety of skills, elements and principles to communicate ideas, emotions, experiences, and stories

TOPIC: History and Culture

- 5.Art.Hist&C.298 compare at a basic level, the characteristics of artworks in various eras and cultures

TOPIC: Performance

- 5.Art.Perf.293 identify basic elements and principles of an art form, appropriate to grade level
- 5.Art.Perf.294 create and/or perform a basic work of art that reflects an ability to select and use the elements and principles of the form

GRADE:5**SUBJECT: Handwriting**

TOPIC: Loops and Other Groups

- 5.HWr.LoopOG.184 determine when it is appropriate to use cursive or the keyboard, using cursive for all disciplines except when using the keyboard

TOPIC: Loops and Other Groups and Computer Technology

- 5.HWr.LoopOGCT.230 determine when it is appropriate to use cursive or the keyboard, using cursive for all disciplines except when using the keyboard

GRADE:5**SUBJECT: Health**

TOPIC: Human Growth and Development

- 5.Hlth.HumG&D.210 identify the structures and functions of the immune system and identify common communicable diseases

TOPIC: Nutrition and Fitness

- 5.Hlth.NutFit.214 discuss the components of a healthy diet
- 5.Hlth.NutFit.215 participate in physical activity on a regular basis

TOPIC: Nutrition and Fitness: Self-esteem and Family Life

- 5.Hlth.NutFitSE.216 explain how personal behaviors and choices significantly impact health
- 5.Hlth.NutFitSE.217 explain the relationship between intellectual, social, emotional and physical factors on well-being

TOPIC: Safety and Prevention

- 5.Hlth.SafPrev.211 identify common causes of stress in young people
- 5.Hlth.SafPrev.212 identify ways that stress impacts health
- 5.Hlth.SafPrev.213 discuss dangers of the improper use of drugs

GRADE:5 **SUBJECT: Info. Literacy and Comp. Tech.**

TOPIC: Computer Technology

- 5.ILCT.CmpTch.223 demonstrate proper keyboarding techniques
- 5.ILCT.CmpTch.224 create, organize, store and back up data
- 5.ILCT.CmpTch.225 create word processed documents that have been drafted, revised and edited electronically
- 5.ILCT.CmpTch.226 use spreadsheets to organize data and to produce charts and graphs
- 5.ILCT.CmpTch.227 use a database to access and organize information
- 5.ILCT.CmpTch.228 create a multimedia presentation that includes text, graphics and sound
- 5.ILCT.CmpTch.229 identify peripheral devices and demonstrate uses (including but not limited to printers, scanners and digital cameras)

TOPIC: Information Literacy

- 5.ILCT.InfoLit.218 determine the information needed to solve a problem
- 5.ILCT.InfoLit.219 use a variety of information sources: print (almanac, dictionary, encyclopedia, atlas), visual, persons, etc.
- 5.ILCT.InfoLit.220 identify appropriate topics and keywords
- 5.ILCT.InfoLit.3373 find information from a given resource alphabetically, chronologically, topically, or numerically
- 5.ILCT.InfoLit.3374 with limited assistance, locate information on the internet
- 5.ILCT.InfoLit.3375 identify the parts of a nonfiction book (glossary, index, table of contents)
- 5.ILCT.InfoLit.3376 independently complete bibliography cards
- 5.ILCT.InfoLit.3377 identify keywords and phrases to record information (note taking)
- 5.ILCT.InfoLit.3378 be able to define "plagiarism"

GRADE:5 **SUBJECT: Language Arts/ Reading**

TOPIC: Comprehension

- 5.LA/R.Comp.3162 use strategies before reading

TOPIC: Oral Reading/ Fluency

- 5.LA/R.OrlRF.3154 build fluency to 128 WCPM on fifth grade level material while attending to punctuation

TOPIC: Vocabulary

- 5.LA/R.Vocab.3159 understand and use content area and theme words
- 5.LA/R.Vocab.3160 use context clues to determine meaning
- 5.LA/R.Vocab.3161 understand multiple-meaning words and shades of meaning

TOPIC: Word Attack

- 5.LA/R.WordAt.3151 use knowledge of sounds to decode unknown words
- 5.LA/R.WordAt.3152 identify syllable types (CVC - closed syllable, CV - open syllable, CVCe - silent e, r-controlled, CVVC - long vowel pair, Cle - consonant followed by "le")
- 5.LA/R.WordAt.3153 use hyphens correctly

TOPIC: Word Study

- 5.LA/R.WordSt.3155 identify parts of speech: nouns, pronouns, verbs, adjectives, adverbs, prepositions, conjunctions and interjections
- 5.LA/R.WordSt.3156 identify synonyms, antonyms and homonyms
- 5.LA/R.WordSt.3157 understand suffixes: main, er, or, en, est, ly
- 5.LA/R.WordSt.3158 identify root words

GRADE:5 **SUBJECT: Language Arts/ Writing**

TOPIC: Six Traits/ Writing

- 5.LA/W.ST/W.3195 ideas
- 5.LA/W.ST/W.3196 organization
- 5.LA/W.ST/W.3197 word choice
- 5.LA/W.ST/W.3198 sentence fluency
- 5.LA/W.ST/W.3199 voice
- 5.LA/W.ST/W.3200 conventions

TOPIC: Spelling

- 5.LA/W.Spell.3190 grade 5 spelling curriculum

TOPIC: Written Language Structure

- 5.LA/W.WrLangSt.3201 paragraph level: write a paragraph with a topic sentence, main idea and details, and a conclusion
- 5.LA/W.WrLangSt.3202 story level
- 5.LA/W.WrLangSt.3203 report level

GRADE:5 **SUBJECT: Math/General**

TOPIC: Communication and Problem Solving

- 5.Ma/G.CommPS.2717 solve problems that require the use of multi-step strategies, verify results and discuss the reasonableness of the solution
- 5.Ma/G.CommPS.2692 communicate processes of and solutions to mathematical problems

TOPIC: Data, Statistics and Probability

- 5.Ma/G.DataSP.2689 make predictions of probable outcomes
- 5.Ma/G.DataSP.2693 analyze patterns, trends or distributions in data using mean, median, and mode
- 5.Ma/G.DataSP.2694 construct appropriate graphs to represent data
- 5.Ma/G.DataSP.2753 use charts, tables and graphs to gather and evaluate data

TOPIC: Functions and Algebra

- 5.Ma/G.FuncAlg.2684 demonstrate conceptual understanding of algebraic expressions and equalities
- 5.Ma/G.FuncAlg.2685 identify and extend to specific cases a variety of patterns and write a rule in words and symbols
- 5.Ma/G.FuncAlg.2686 solve equations with one operation
- 5.Ma/G.FuncAlg.2687 determine which values of a replacement set make a multi-step equation a true statement

TOPIC: Geometry and Measurement

- 5.Ma/G.Geom&M.2690 use both standard and metric tools to accurately measure distance, volume, area, perimeter, mass, temperature, and time
- 5.Ma/G.Geom&M.2691 make congruent figures using reflections, translations, and rotations
- 5.Ma/G.Geom&M.2752 name, describe, construct and measure two and three dimensional geometric figures

TOPIC: Number and Operations

- 5.Ma/G.Num&Ops.2682 accurately and fluently add, subtract, multiply, and divide whole numbers as well as demonstrate the understanding of place value with respect to whole numbers
- 5.Ma/G.Num&Ops.2683 use fractions and decimals in all operations as well as demonstrate the understanding of place value with respect to fractions and decimals
- 5.Ma/G.Num&Ops.2688 solve mathematical problems using mental computation and estimation

GRADE:5 **SUBJECT: Music**

TOPIC: Appreciation

5.Mus.App.3413 recognize various styles of music including classical, jazz, spiritual, and march

TOPIC: Composition

5.Mus.Comp.3411 compose, notate and perform rhythm patterns using whole, dotted-half, half, quarter, eighth and sixteenth notes and rests in various time signatures

TOPIC: History

5.Mus.Hist.3414 describe music from various eras of American history

TOPIC: Listening

5.Mus.Lis.3409 describe and evaluate the elements of musical selections using correct terminology

TOPIC: Performance

5.Mus.Perf.3408 demonstrate proper vocal technique using ostinati, partner songs, rounds and harmony

TOPIC: Theory

5.Mus.Theory.3410 recognize the following forms: AB, ABA, Rondo, Call and Response, and Theme and Variation

5.Mus.Theory.3412 identify and demonstrate basic note-reading, including quarter notes and rests, eighth notes, half notes and rests, whole notes and rests, triplets, and recognize the notes of the grand staff

GRADE:5 SUBJECT: Physical Education

TOPIC: Safety and Prevention

5.PE.SafPrev.3247 arrive to class prepared for safe physical activity

TOPIC: Skill and Fitness

5.PE.SkiFit.259 perform age-appropriate manipulative skills

5.PE.SkiFit.262 use locomotor, non-locomotor, manipulative and social skills in low organized games

5.PE.SkiFit.263 identify the benefits derived from regular physical activity

5.PE.SkiFit.265 exhibit age-appropriate level of fitness

TOPIC: Wellness and Health

5.PE.WellH.257 participate in class activities

5.PE.WellH.260 demonstrate responsible personal and social behavior in games and activities

5.PE.WellH.261 demonstrate understanding and respect for the differences in performance among one's peers during games and activities

TOPIC: Wellness and Health/Social Interaction

5.PE.WellH/SI.264 work cooperatively and productively with a partner and/or small group

GRADE:5 SUBJECT: Science

TOPIC: Atmosphere, Climate, and Weather

5.Sci.AtmCIWWea.5062 Describe and make predictions about local and regional weather conditions using observation and data collection methods through meteorological tools

5.Sci.AtmCIWWea.5064 Describe weather in terms of temperature, wind speed, and direction, precipitation & cloud cover

5.Sci.AtmCIWWea.5070 Describe how clouds affect weather and climate, including precipitation, reflecting light from the sun, and retaining heat energy emitted from Earth's surface

5.Sci.AtmCIWWea.5071 Explain the composition and structure of the Earth's atmosphere

TOPIC: Change

5.Sci.Change.5065 Differentiates between physical change such as melting, and chemical change such as rusting

TOPIC: Energy

5.Sci.Energy.5066 Describe the transfer of heat conduction, convection and radiation and as a byproduct of energy conversion.

5.Sci.Energy.5069 Identify and describe seasonal, daylight and weather patterns as they relate to energy

5.Sci.Energy.5072 Recognize how the tilt of the Earth's axis and the Earth's revolution around the sun affect seasons and weather patterns

TOPIC: Flow of Energy and Recycling of

5.Sci.FlWEnRcl.5058 Describe how energy flows and matter recycles through an eco-system

5.Sci.FlWEnRcl.5059 Explain the roles of producers, consumers, and decomposers and how energy is transferred through food web in an ecosystem

5.Sci.FlWEnRcl.5060 Describe the process of photosyntheses

TOPIC: Processes & Rates of Change

5.Sci.PrRtsChg.5067 Explain how some changes to the Earth's surface happen abruptly as a result of landslides, earthquakes and volcanic eruptions

5.Sci.PrRtsChg.5068 Explain how changes happen very slowly as a result of weathering, erosion and deposition of sediment

TOPIC: Rock Cycle

5.Sci.RckCycle.5061 Identify the components and properties of soil and other factors, such as bacteria, fungi, and worms that influence it's texture, fertility, resistance to erosion and it's ability to support life

GRADE:5 **SUBJECT: Social Studies/General**

TOPIC: Civics/Government

5.SS/G.Civ/Gov.206 discuss and explain the importance of the United States Constitution and the Bill of Rights including the ability to recite the preamble of the Constitution

5.SS/G.Civ/Gov.3232 list and describe the rights and responsibilities of a US citizen

5.SS/G.Civ/Gov.3234 demonstrate an understanding of the basic responsibilities and powers of the three branches of government

TOPIC: Economics

5.SS/G.Econ.3233 define and explain the importance of the following terms: supply, demand, cash crop, trade, product, economies

TOPIC: Economics and Geography

5.SS/G.EconGeog.3231 explain and provide examples of how geographic location effects economic success during the colonial period

5.SS/G.EconGeog.3249 explain and provide examples of how geographic location effects economic success in the northern and southern states during the Civil War

TOPIC: Geography

5.SS/G.Geog.202 demonstrate geographic skills by reading a variety of maps and understanding their symbols and terminology

5.SS/G.Geog.204 demonstrate mapping skills by labeling the following: major features (mountain ranges, bodies of water, etc.); major cities of the USA (10-12); and places of historical and current significance to the United States of America

5.SS/G.Geog.3250 on a world map, students should be able to: 1)label the major physical features (e.g. mountain ranges, bodies of water, deltas, deserts, bays, etc) and 2)label major countries related to the history of the United States

TOPIC: History

5.SS/G.Hist.3242 summarize the significance of documents developed before, during and after the American Revolution to include: the Declaration of Independence, Articles of Confederation, Constitution and the Bill of Rights

TOPIC: History and Geography

5.SS/G.HisGeog.3236 demonstrate knowledge of the various geographic explorations by European nations (mainly North America)

5.SS/G.HisGeog.3240 compare and contrast how the colonies developed and the major differences between government, resources, economics and culture (New England vs. Middle vs. Southern - regionally)

5.SS/G.HisGeog.3241 demonstrate knowledge of the American Revolution to include: why it was fought, significant events and individuals, and its outcome

5.SS/G.HisGeog.3243 describe why and how people moved west and the difficulties they faced to include: pioneer relationships with Native Americans and the impact of the Gold Rush during the Westward Expansion era

5.SS/G.HisGeog.3244 list some of the major inventors and inventions of 1800-1863 during the Industrial Revolution

5.SS/G.HisGeog.3246 summarize the overriding cause, the important people and events, and the results of the Civil War

GRADE:6 **SUBJECT: Band**

TOPIC: Careers

6.Bnd.Car.3436 survey the range of careers in the field of music

TOPIC: Culture

6.Bnd.Cult.3435 identify and compare the purpose music serves in several cultures around the world

TOPIC: Listening and Responding to Music

6.Bnd.LisRM.3432 recognize the basic principles of meter, rhythm, tonality, intervals, chords and harmonic progressions in various works of music at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

6.Bnd.LisRM.3433 describe and evaluate the quality of personal and group performances in a variety of musical compositions

6.Bnd.LisRM.3434 describe distinguishing characteristics of musical works from various genres and styles

TOPIC: Performance

6.Bnd.Perf.3430 demonstrate an understanding of proper tone production on various musical works at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Reading and Notation

6.Bnd.ReadNot.3431 define standard notation symbols for pitch, rhythm, dynamics, tempo, articulation and expression for music at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

GRADE:6 **SUBJECT: Beginning Band**

TOPIC: Careers

6.BBnd.Car.3429 survey the range of careers in the field of music

TOPIC: Culture

6.BBnd.Cult.3428 identify and compare the purpose music serves in several cultures around the world

TOPIC: Listening and Responding to Music

6.BBnd.LisRM.3425 recognize the basic principles of meter, rhythm, tonality, intervals, chords and harmonic progressions in various works of music at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

6.BBnd.LisRM.3426 describe and evaluate the quality of personal and group performances in a variety of musical compositions

6.BBnd.LisRM.3427 describe distinguishing characteristics of musical works from various genres and styles

TOPIC: Performance

6.BBnd.Perf.3423 demonstrate an understanding of proper tone production on various musical works at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Reading and Notation

6.BBnd.ReadNot.3424 define standard notation symbols for pitch, rhythm, dynamics, tempo, articulation and expression for music at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

GRADE:6 **SUBJECT: Chorus**

TOPIC: Careers

6.Chor.Car.3450 survey the range of careers in the field of music

TOPIC: Culture

6.Chor.Cult.3449 identify and compare the purpose music serves in several cultures around the world

TOPIC: Listening and Responding to Music

6.Chor.LisRM.3446 recognize the basic principles of meter, rhythm, tonality, intervals, chords and harmonic progressions in various works of music at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

6.Chor.LisRM.3447 describe and evaluate the quality of personal and group performances in a variety of musical compositions

6.Chor.LisRM.3448 describe distinguishing characteristics of musical works from various genres and styles, for example: Sacred, Secular and Patriotic music

TOPIC: Performance

6.Chor.Perf.3444 demonstrate an understanding of proper vocal technique on various musical works at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Reading and Notation

6.Chor.ReadNot.3445 define standard notation symbols for pitch, rhythm, dynamics, tempo, articulation and expression for music at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

GRADE:6

SUBJECT: Health

TOPIC: Health

6.Hlth.Hlth.3333 discuss the short-term and long-term use of alcohol, tobacco and other drug use

6.Hlth.Hlth.3334 identify stress and ways to manage it

6.Hlth.Hlth.1937 identify the importance of personal hygiene in daily life and proper care of skin, teeth, hair, and eyes

6.Hlth.Hlth.1938 identify and describe the function of the skeletal, muscular, nervous, respiratory, circulatory, digestive, and immune systems

6.Hlth.Hlth.1939 identify the major physical, social, and emotional changes of adolescence

6.Hlth.Hlth.1940 identify, describe and demonstrate skills to build and maintain healthy relationships

GRADE:6

SUBJECT: Info. Literacy and Comp. Tech.

TOPIC: Computer Technology

6.ILCT.CmpTch.2489 use databases (productivity tool) to access a, organize and present

6.ILCT.CmpTch.1959 demonstrate a sound understanding of the nature and operation of technology systems

6.ILCT.CmpTch.1960 use proper keyboarding techniques

6.ILCT.CmpTch.1961 locate information from within word processed documents

6.ILCT.CmpTch.1962 practice responsible use of technology systems, information, and software

6.ILCT.CmpTch.1963 practice security measures and follow the District Acceptable Use Policy for networked resources

6.ILCT.CmpTch.2025 design, create and embed a chart within a document

6.ILCT.CmpTch.2026 use technology tools to enhance learning, increase productivity, and promote creativity

6.ILCT.CmpTch.2034 evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks

TOPIC: Information Literacy

6.ILCT.InfoLit.2486 determine the information needed to solve a problem

6.ILCT.InfoLit.2487 with assistance, develop research questions

6.ILCT.InfoLit.2488 credit information sources used

6.ILCT.InfoLit.1954 use the author, title, subject and keyword features of an electronic catalog

6.ILCT.InfoLit.1956 maintain a working bibliography on formatted templates

6.ILCT.InfoLit.1957 gather information from a variety of print and electronic resources

GRADE:6

SUBJECT: Language Arts/ Reading

TOPIC: Comprehension

6.LA/R.Comp.3115 begin to develop an understanding that reading is a process and apply before, during, and after reading strategies

6.LA/R.Comp.3116 demonstrate a basic understanding of literary text through summarizing, paraphrasing, or sequencing major events

6.LA/R.Comp.3117 analyze and interpret elements of literary texts

6.LA/R.Comp.3118 demonstrate initial understanding of informational text use

6.LA/R.Comp.3119 analyze and interpret informational texts

TOPIC: Study Skills

6.LA/R.StdSkl.3122 learn and apply a range of study skills

TOPIC: Word Study

- 6.LA/R.WordSt.3120 use strategies to identify the meaning of unfamiliar vocabulary including prefixes, suffixes, and base words, context clues, and parts of speech
- 6.LA/R.WordSt.3121 express an understanding of synonyms, antonyms, homonyms, multiple meanings, as well as figurative language

GRADE:6 **SUBJECT: Language Arts/General**

TOPIC: Listening, Speaking, Viewing

- 6.LA/G.LisSV.1897 develop speaking, viewing, and listening skills

TOPIC: Reading/ ELA

- 6.LA/G.Read/ELA.1891 make and support analytical judgments about literary or informational texts
- 6.LA/G.Read/ELA.3164 show an understanding of plot/ideas/concepts in response to literary or informative text

TOPIC: Writing

- 6.LA/G.Wri.1893 develop and demonstrate the habit of writing through the writing process and six traits plus one
- 6.LA/G.Wri.1894 create a story line and apply narrative strategies
- 6.LA/G.Wri.1896 apply rules of grammar, usage, and mechanics in writing
- 6.LA/G.Wri.3163 begin to develop an understanding of the structures of sentences, paragraphs, and text

TOPIC: Writing, Information Literacy

- 6.LA/G.WriIL.1895 use reports, procedures, or persuasive writing to organize and convey information gathered through research

GRADE:6 **SUBJECT: Math/CMP**

TOPIC: Communication and Connections

- 6.Ma/C.Comm&C.1910 evaluate the validity of a mathematical statement

TOPIC: Computation, Numbers, Numeration, Operations

- 6.Ma/C.CNNO.1899 accurately and fluently add, subtract, multiply, and divide decimals and fractions
- 6.Ma/C.CNNO.1900 identify and solve everyday applications of computation
- 6.Ma/C.CNNO.2427 convert decimals to fractions and percents
- 6.Ma/C.CNNO.2428 convert fractions to decimals and percents
- 6.Ma/C.CNNO.2429 use estimates and rounded values for describing and comparing events
- 6.Ma/C.CNNO.2430 identify and apply relationships among factors, multiples, divisors, and products

TOPIC: Data Analysis

- 6.Ma/C.DataAn.1911 compare data using a variety of tables, charts, and graphs
- 6.Ma/C.DataAn.2425 choose appropriate units of measurement and develop benchmarks to make sense of measurement
- 6.Ma/C.DataAn.2426 read and analyze bar, line, and coordinate graphs

TOPIC: Geometry and Measurement

- 6.Ma/C.Geom&M.1906 measure and classify angles
- 6.Ma/C.Geom&M.1908 identify point and line symmetry in given polygons
- 6.Ma/C.Geom&M.2423 classify polygons and triangles
- 6.Ma/C.Geom&M.2424 identify types of lines

TOPIC: Problem Solving and Reasoning

- 6.Ma/C.PrSolR.1902 estimate what percent one number is of another
- 6.Ma/C.PrSolR.1903 describe and properly use estimation and mental computation to solve problems where exact answers are not required

TOPIC: Problem Solving and Reasoning, Data Analysis

- 6.Ma/C.PrSolRDA.1901 solve problems that are missing necessary information that must be discovered through research techniques

GRADE:6 **SUBJECT: Music**

TOPIC: Careers

- 6.Mus.Car.3422 survey the range of careers in the field of music

TOPIC: Culture

6.Mus.Cult.3421 identify and compare the purpose music serves in several cultures around the world

TOPIC: Listening and Responding to Music

6.Mus.LisRM.3419 recognize the basic principles of meter, rhythm, intervals, chords and harmonic progressions in a variety of musical works

6.Mus.LisRM.3420 describe distinguishing characteristics of musical works from various genres and styles

TOPIC: Performance

6.Mus.Perf.3417 demonstrate proper finger position and play various melodies in C Major on a keyboard instrument

TOPIC: Reading and Notation

6.Mus.ReadNot.3418 define standard notation symbols for pitch, rhythm, dynamics and tempo

GRADE:6 **SUBJECT: Orchestra**

TOPIC: Careers

6.Orch.Car.3443 survey the range of careers in the field of music

TOPIC: Culture

6.Orch.Cult.3442 identify and compare the purpose music serves in several cultures around the world

TOPIC: Listening and Responding to Music

6.Orch.LisRM.3439 recognize the basic principles of meter, rhythm, tonality, intervals, chords and harmonic progressions in various works of music at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

6.Orch.LisRM.3440 describe and evaluate the quality of personal and group performances in a variety of musical compositions

6.Orch.LisRM.3441 describe distinguishing characteristics of musical works from various genres and styles

TOPIC: Performance

6.Orch.Perf.3437 demonstrate an understanding of proper tone production on various musical works at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Reading and Notation

6.Orch.ReadNot.3438 define standard notation symbols for pitch, rhythm, dynamics, tempo, articulation and expression for music at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

GRADE:6 **SUBJECT: Physical Education**

TOPIC: Physical Education

6.PE.PhysEd.1943 demonstrate competency in many, and proficiency in a few movement forms through team, individual and dual sports

6.PE.PhysEd.1944 apply movement concepts and principles to the learning and development of motor skills

6.PE.PhysEd.1945 analyze performance using spring, rebound, and force principles in order to learn or improve a skill

6.PE.PhysEd.1946 exhibit knowledge of terminology, rules, scoring and etiquette in team, individual and dual sports, specifically in soccer

6.PE.PhysEd.1948 assess personal fitness, compare scores to a health related standards, and set goals for improvement or maintenance

6.PE.PhysEd.1949 demonstrate accountability for responsible personal and social behavior in physical activity settings, applying appropriate personal and social behavior through a variety of activities

6.PE.PhysEd.1950 demonstrate understanding and respect for differences among people in physical activity setting, and apply to a problem solving activity

6.PE.PhysEd.1951 analyze patterns of physical activity and develop an activity that provides opportunities for enjoyment, challenge, self-expression and social interaction

TOPIC: Respect for Differences

6.PE.RespFD.2294 develop an awareness of individual differences among people in physical activity settings through skill development

6.PE.RespFD.2451 demonstrate understanding and respect for differences among people in physical activity setting and apply to a problem solving activity

TOPIC: Earth Space Science

- 6.Sci.EaSpSci.3571 describe the magnetic properties of the earth
- 6.Sci.EaSpSci.3572 describe the sun as the principle energy source for phenomena on the Earth's surface

TOPIC: Life Science

- 6.Sci.LfSci.3537 describe how genetic traits are passed from parent to offspring
- 6.Sci.LfSci.3538 describe basic cell parts and functions

TOPIC: Physical Science

- 6.Sci.PhysSci.1914 describe the properties of magnets
- 6.Sci.PhysSci.1915 plan, conduct and explain an investigation that demonstrates the factors needed to produce an electric current
- 6.Sci.PhysSci.1916 give examples of different kinds of energy and describe how one can be transformed into another
- 6.Sci.PhysSci.1917 distinguish between objects that are opaque, transparent and translucent, and explain why they appear the color they do
- 6.Sci.PhysSci.1918 describe or give an example of reflection and refraction
- 6.Sci.PhysSci.1921 describe how forces can change the position, speed, and direction of motion of objects
- 6.Sci.PhysSci.3535 compare and contrast magnetism and electricity
- 6.Sci.PhysSci.3536 compare and contrast light and sound
- 6.Sci.PhysSci.3539 explain how sound occurs and the characteristics of sound and sound waves
- 6.Sci.PhysSci.3540 explain the relationship between wavelength, frequency and pitch

TOPIC: Physical Science, Life Science

- 6.Sci.PhysSciL.1913 produce valid scientific experiments which include data presentation and interpretation

TOPIC: Civics

- 6.SS/G.Civ.1930 identify and explain factors that make up a civilization
- 6.SS/G.Civ.1931 discuss the contributions of the Maya, Inca and Aztec civilizations
- 6.SS/G.Civ.1932 compare and contrast the governments of the United States and Canada

TOPIC: Economics

- 6.SS/G.Econ.1933 provide examples that show how scarcity and choice govern economic and political decisions

TOPIC: Geography

- 6.SS/G.Geog.1924 use a map to determine an area's climate; show movement of people; uses of various land forms; and identify rural, urban and suburban areas
- 6.SS/G.Geog.1925 use a key, grid, index and/or symbols to locate information on a map
- 6.SS/G.Geog.1926 apply the five themes of geography to describe Canada and Latin America

TOPIC: History

- 6.SS/G.Hist.2452 explain the significance of immigration of the Western Hemisphere 1870-1910
- 6.SS/G.Hist.1928 create and interpret timelines

TOPIC: History Earth Science

- 6.SS/G.HistES.1927 identify and discuss ways people depend upon, use, adapt to and alter their physical environment and how this can be beneficial and/or harmful

TOPIC: Social Skills and Research Skills

- 6.SS/G.SSkRS.1923 interpret political and relief maps

TOPIC: French and Spanish (Target languages for Grade 6)

- 6.WL.Fr&Sp.2312 greet and respond to greetings in the target language
- 6.WL.Fr&Sp.2313 introduce and respond to introductions in the target language
- 6.WL.Fr&Sp.2314 ask and answer simple questions using age appropriate vocabulary in the target language

6.WL.Fr&Sp.2315	respond to basic commands in the target language
6.WL.Fr&Sp.2316	identify cognates in the target language
6.WL.Fr&Sp.2317	use days and months to describe calendar in the target language
6.WL.Fr&Sp.2318	count and demonstrate understanding of numbers from 0 to 20 in the target language
6.WL.Fr&Sp.2319	make simple requests in the target language
6.WL.Fr&Sp.2320	identify parts of the face and body using the target language
6.WL.Fr&Sp.2321	identify classroom objects using the target language
6.WL.Fr&Sp.2322	read and express understanding of the date
6.WL.Fr&Sp.2323	identify geographic areas where the target languages are spoken
6.WL.Fr&Sp.2324	discuss and demonstrate understanding of cultural customs and traditions in countries where the target language is spoken
6.WL.Fr&Sp.2334	demonstrates basic listening comprehension skills.

GRADE:7 **SUBJECT: Band**

TOPIC: Careers

7.Bnd.Car.3495	survey the range of careers in the field of music
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TOPIC: Culture

7.Bnd.Cult.3494	identify and compare the purpose music serves in several cultures around the world
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TOPIC: Listening and Responding to Music

7.Bnd.LisRM.3492	describe and evaluate the quality of personal and group performances in a variety of musical compositions
7.Bnd.LisRM.3493	describe distinguishing characteristics of musical works from various genres and styles
7.Bnd.LisRM.3473	recognize the basic principles of meter, rhythm, tonality, intervals, chords and harmonic progressions in various examples of music at grade level two or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Performance

7.Bnd.Perf.3471	demonstrate an understanding of proper tone production on various musical works at grade level two or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)
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TOPIC: Reading and Notation

7.Bnd.ReadNot.3472	define standard notation symbols for pitch, rhythm, dynamics, tempo, articulation and expression for music at grade level two or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)
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GRADE:7 **SUBJECT: Beginning Band**

TOPIC: Careers

7.BBnd.Car.3491	survey the range of careers in the field of music
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TOPIC: Culture

7.BBnd.Cult.3490	identify and compare the purpose music serves in several cultures around the world
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TOPIC: Listening and Responding to Music

7.BBnd.LisRM.3488	describe and evaluate the quality of personal and group performances in a variety of musical compositions
7.BBnd.LisRM.3489	describe distinguishing characteristics of musical works from various genres and styles
7.BBnd.LisRM.3470	recognize the basic principles of meter, rhythm, tonality, intervals, chords and harmonic progressions in various works of music at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Performance

7.BBnd.Perf.3468	demonstrate an understanding of proper tone production on various musical works at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)
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TOPIC: Reading and Notation

7.BBnd.ReadNot.3469 define standard notation symbols for pitch, rhythm, dynamics, tempo, articulation and expression for music at grade level one or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

GRADE:7 **SUBJECT: Chorus**

TOPIC: Careers

7.Chor.Car.3463 survey the range of careers in the field of music

TOPIC: Culture

7.Chor.Cult.3462 identify and compare the purpose music serves in several cultures around the world

TOPIC: Listening and Responding to Music

7.Chor.LisRM.3459 recognize the basic principles of meter, rhythm, tonality, intervals, chords and harmonic progressions in various works of music at grade level two or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

7.Chor.LisRM.3460 describe and evaluate the quality of personal and group performances in a variety of musical compositions

7.Chor.LisRM.3461 describe distinguishing characteristics of musical works from various genres and styles, for example: Sacred, Secular and Patriotic music

TOPIC: Performance

7.Chor.Perf.3457 demonstrate an understanding of proper vocal technique on various musical works at grade level two or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Reading and Notation

7.Chor.ReadNot.3458 define standard notation symbols for pitch, rhythm, dynamics, tempo, articulation and expression for music at grade level two or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

GRADE:7 **SUBJECT: Health**

TOPIC: Health

7.Hlth.Hlth.3335 identify the short-term and long-term effects of alcohol, tobacco, and other drug use

7.Hlth.Hlth.3336 explain how to make a personal commitment not to use drugs

7.Hlth.Hlth.3337 perform basic first aid skills for common emergencies

7.Hlth.Hlth.3338 explain the benefits of healthful eating

7.Hlth.Hlth.3339 access nutrition information and products

7.Hlth.Hlth.3340 identify influences on food choices

7.Hlth.Hlth.3341 explain how to balance food intake and physical activity

7.Hlth.Hlth.3342 explain the importance of making a personal commitment to abstain from sexual intercourse

7.Hlth.Hlth.3343 identify appropriate resources and support when they need help

7.Hlth.Hlth.3344 identify actions that involve personal health care

7.Hlth.Hlth.3345 explain various ways of preventing disease and infection

7.Hlth.Hlth.3346 identify major systems of the body and their purpose

7.Hlth.Hlth.2011 identify major changes that take place during adolescence

GRADE:7 **SUBJECT: Info. Literacy and Comp. Tech.**

TOPIC: Computer Technology

7.ILCT.CmpTch.2368 plan and create a database with appropriate fields

7.ILCT.CmpTch.2036 use content specific tools, software and simulations to support learning and research

7.ILCT.CmpTch.2101 format word processed documents

7.ILCT.CmpTch.2102 create and use spreadsheets to organize, calculate and analyze data; make predictions; and produce charts/graphs

7.ILCT.CmpTch.2103 use a computer to analyze and display data in tables, graphs or charts

7.ILCT.CmpTch.2105 practice basic care and maintenance functions

- 7.ILCT.CmpTch.2106 create a multimedia presentation that includes text, graphics and sound, including, where appropriate, hypermedia, video and other existing/emerging technologies
- 7.ILCT.CmpTch.2107 use technology tools, such as multi-media presentation to aid in the demonstration of newly acquired knowledge and information
- 7.ILCT.CmpTch.2279 create quality word processed documents which display information
- 7.ILCT.CmpTch.2281 perform simple troubleshooting of hardware and software

TOPIC: Information Literacy

- 7.ILCT.InfoLit.2491 use advanced search tools in electronic catalog, search engines, and databases
- 7.ILCT.InfoLit.2492 take notes using graphic organizers or other templates
- 7.ILCT.InfoLit.2027 independently develop research questions
- 7.ILCT.InfoLit.2028 organize information from multiple sources
- 7.ILCT.InfoLit.2033 exhibit ethical and legal behavior when using information and technology

GRADE:7 **SUBJECT: Language Arts/ Reading**

TOPIC: Comprehension

- 7.LA/R.Comp.3123 continue to develop an understanding that reading is a process and apply before, during, and after reading strategies
- 7.LA/R.Comp.3124 demonstrate an understanding of literary text through summarizing, paraphrasing, or sequencing major events
- 7.LA/R.Comp.3125 analyze and interpret elements of literary texts
- 7.LA/R.Comp.3126 demonstrate understanding of informational text use
- 7.LA/R.Comp.3127 analyze and interpret informational texts

TOPIC: Word Study

- 7.LA/R.WordSt.3128 use strategies to identify the meaning of unfamiliar vocabulary including prefixes, suffixes, and base words, context clues, and parts of speech
- 7.LA/R.WordSt.3166 express an understanding of synonyms, antonyms, homonyms, multiple meanings, as well as figurative language

GRADE:7 **SUBJECT: Language Arts/General**

TOPIC: Listening, Speaking, Viewing

- 7.LA/G.LisSV.1973 continue to develop speaking, viewing, and listening skills

TOPIC: Reading/ ELA

- 7.LA/G.Read/ELA.1964 show an understanding of plot/ ideas/ concepts in response to literary or informational text
- 7.LA/G.Read/ELA.1965 make and support analytical judgments about literary or informational texts

TOPIC: Writing

- 7.LA/G.Wri.1969 develop and demonstrate the habit of writing through the writing process and the six traits plus one
- 7.LA/G.Wri.1971 create a story line and apply narrative strategies
- 7.LA/G.Wri.3137 apply rules of grammar, usage, and mechanics in writing
- 7.LA/G.Wri.3138 continue to develop an understanding of the structures of sentences, paragraphs, and text

TOPIC: Writing, Information Literacy

- 7.LA/G.WriIL.1970 use reports, procedures, or persuasive writing to organize and convey information gathered through research

GRADE:7 **SUBJECT: Math/CMP**

TOPIC: Communication and Connections

- 7.Ma/C.Comm&C.2975 write algebraic expressions from verbal phrases

TOPIC: Computation, Numbers, Numeration, Operations

- 7.Ma/C.CNNO.2431 add, subtract, multiply, and divide integers
- 7.Ma/C.CNNO.2432 convert fractions to percents; percents to fractions

TOPIC: Data Analysis

- 7.Ma/C.DataAn.2435 create and make predictions from graphs tables and charts

- 7.Ma/C.DataAn.2436 create graphs, tables, and charts to solve problems
- 7.Ma/C.DataAn.2437 create and graph on a four quadrant plane
- 7.Ma/C.DataAn.2438 collect and organize categorical and numerical data
- 7.Ma/C.DataAn.2439 calculate the mean
- 7.Ma/C.DataAn.2440 represent data with line plots, bar graphs, coordinate graphs and stem-and-leaf graphs
- 7.Ma/C.DataAn.2974 distinguish between valid statistics and graphs and those which are misleading

TOPIC: Geometry and Measurement

- 7.Ma/C.Geom&M.2441 use formulas to find rate, distance, area, perimeter and time
- 7.Ma/C.Geom&M.2442 compute the perimeter, circumference, and area

TOPIC: Problem Solving and Reasoning

- 7.Ma/C.PrSolR.2433 solve equations with integers
- 7.Ma/C.PrSolR.2434 solve problems using proportion, ratio and percent
- 7.Ma/C.PrSolR.2972 use estimation to determine the accuracy of a solution
- 7.Ma/C.PrSolR.2973 solve word problems by using an equation

GRADE:7 SUBJECT: Math/Pre-Algebra

TOPIC: Communication and Connections

- 7.Ma/PA.Comm&C.1983 write algebraic expressions from verbal phrases

TOPIC: Computation, Numbers, Numeration, Operations

- 7.Ma/PA.CNNO.1974 add, subtract, multiply and divide whole numbers, fractions, decimals and integers
- 7.Ma/PA.CNNO.1975 explain and apply the order of operations
- 7.Ma/PA.CNNO.1976 convert decimals to fractions and percents, and convert fractions to decimals and percents

TOPIC: Data Analysis

- 7.Ma/PA.DataAn.1984 make predictions from graphs, tables and charts
- 7.Ma/PA.DataAn.1985 distinguish between valid statistics and graphs and those which are misleading

TOPIC: Problem Solving and Reasoning

- 7.Ma/PA.PrSolR.1977 solve equations with decimals, fractions, mixed numbers and integers
- 7.Ma/PA.PrSolR.1978 solve word problems by using an equation
- 7.Ma/PA.PrSolR.1979 use estimation to determine the accuracy of a solution

GRADE:7 SUBJECT: Music

TOPIC: Careers

- 7.Mus.Car.3456 survey the range of careers in the field of music

TOPIC: Culture

- 7.Mus.Cult.3455 identify and compare the purpose music serves in several cultures around the world

TOPIC: Listening and Responding to Music

- 7.Mus.LisRM.3453 recognize the basic principles of meter, rhythm, intervals, chords and harmonic progressions in a variety of musical works
- 7.Mus.LisRM.3454 describe distinguishing characteristics of musical works from various genres and styles

TOPIC: Performance

- 7.Mus.Perf.3451 demonstrate proper finger position and play various melodies in C Major and G Major on a keyboard instrument

TOPIC: Reading and Notation

- 7.Mus.ReadNot.3452 define standard notation symbols for pitch, rhythm, dynamics and tempo

GRADE:7 SUBJECT: Orchestra

TOPIC: Careers

- 7.Orch.Car.3487 survey the range of careers in the field of music

TOPIC: Culture

- 7.Orch.Cult.3486 identify and compare the purpose music serves in several cultures around the world

TOPIC: Listening and Responding to Music

- 7.Orch.LisRM.3467 recognize the basic principles of meter, rhythm, tonality, intervals, chords and harmonic progressions in various works of music at grade level two or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)
- 7.Orch.LisRM.3484 describe and evaluate the quality of personal and group performances in a variety of musical compositions
- 7.Orch.LisRM.3485 describe distinguishing characteristics of musical works from various genres and styles

TOPIC: Performance

- 7.Orch.Perf.3465 demonstrate an understanding of proper tone production on various musical works at grade level two or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Reading and Notation

- 7.Orch.ReadNot.3466 define standard notation symbols for pitch, rhythm, dynamics, tempo, articulation and expression for music at grade level two or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

GRADE:7 **SUBJECT: Physical Education**

TOPIC: Physical Education

- 7.PE.PhysEd.2016 demonstrate competency in many, and proficiency in a few movement forms through team, individual and dual sports
- 7.PE.PhysEd.2017 apply movement concepts and principles to the learning and development of motor skills
- 7.PE.PhysEd.2018 analyze performance using spring, rebound, and force principles in order to learn or improve a skill
- 7.PE.PhysEd.2019 exhibit knowledge of terminology, rules, scoring and etiquette in team, individual and dual sports, specifically in basketball+E308
- 7.PE.PhysEd.2020 achieve and maintain a health enhancing level of physical fitness
- 7.PE.PhysEd.2021 assess personal fitness, compare scores to a health related standard, and set goals for improvement or maintenance
- 7.PE.PhysEd.2022 demonstrate accountability for responsible personal and social behavior in physical activity settings, applying appropriate personal and social behavior through a variety of activities
- 7.PE.PhysEd.2023 demonstrate understanding and respect for differences among people in physical activity setting, and apply to a problem solving activity
- 7.PE.PhysEd.2024 analyze patterns of physical activity and develop an activity that provides opportunities for enjoyment, challenge, self-expression and social interaction

GRADE:7 **SUBJECT: Science**

TOPIC: Earth Space Science

- 7.Sci.EaSpSci.3558 use geological evidence to support the idea that Earth's crust/lithosphere is composed of plates that move
- 7.Sci.EaSpSci.3559 explain how land forms are the result of a combination of constructive and destructive forces
- 7.Sci.EaSpSci.3560 using data about a rock's physical characteristics, make and support an inference about the rock's history and connection to the rock cycle

TOPIC: Earth Space Science and Physical Science

- 7.Sci.EarSciPS.3561 demonstrate knowledge that most objects in the solar system are in regular and predictable motion. Those motions explain such phenomena as the day and night, the year, phases of the moon, the seasons, and eclipses
- 7.Sci.EarSciPS.3562 explain that Earth is the third planet from the Sun in a system that includes the Moon, the Sun, seven other planets and their moons, and other smaller objects, such as asteroids and comets. The Sun, an average star, is the central and largest body in the solar system
- 7.Sci.EarSciPS.3563 demonstrate understanding that gravity is the force that keeps the planets in orbit around the Sun and governs the rest of the motion in the solar system. Gravity alone holds us to the Earth's surface
- 7.Sci.EarSciPS.3564 explain how technological advances have allowed scientists to reevaluate or extend existing ideas about the solar system

TOPIC: Life Science

7.Sci.LfSci.3565	use evidence provided to explain that population consists of all individuals of a species that occur together at a given place and time. All populations living together and the physical factors with which they interact compose an ecosystem
7.Sci.LfSci.3566	using data and observations, predict outcomes when abiotic/biotic factors are changed in an ecosystem
7.Sci.LfSci.3567	use data and observation to support the concept that environmental factors affect human body systems
7.Sci.LfSci.3568	investigate how energy entering ecosystems as sunlight is transferred by producers into chemical energy through photosynthesis. That energy then passes from organism to organism in food webs
7.Sci.LfSci.3569	use food webs to identify the relationships among producers, consumers, and decomposers in an ecosystems
7.Sci.LfSci.3570	demonstrate understanding that biological adaptations include changes in structures, behaviors, or physiology that enhance survival and reproductive success in a particular environment

GRADE:7

SUBJECT: Social Studies/General

TOPIC: Civics

7.SS/G.Civ.2002	identify, compare and contrast, and analyze various forms of government
7.SS/G.Civ.2003	discuss how the concept of government in the eastern hemisphere differs from the western hemisphere

TOPIC: Economics

7.SS/G.Econ.2005	explain why economic systems develop according to availability of resources
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TOPIC: Economics, Civics

7.SS/G.EconC.2004	define and identify economic systems as related to forms of government studied
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TOPIC: Geography

7.SS/G.Geog.1999	use maps and globes to apply the 5 themes of geography to the various regions of Europe, Asia, Africa, Eurasia and the Middle East
7.SS/G.Geog.2000	identify and describe the elements of culture; and explain the impact of culture on a given region

TOPIC: History Geography

7.SS/G.HistGeog.2001	evaluate the impact of historical events on culture
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TOPIC: Social Skills and Research Skills, Data Analysis

7.SS/G.SSkRSDA.1998	read and analyze data based on thematic maps, graphs, charts and visuals
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GRADE:7

SUBJECT: World language

TOPIC: French OR Spanish

7.WL.FrOrSp.2335	expresses likes and dislikes
7.WL.FrOrSp.2336	describes self and others using the verb "to be" and appropriate adjective forms
7.WL.FrOrSp.2337	identifies and discusses classroom objects, activities, schedules, and pastimes
7.WL.FrOrSp.2338	expresses time and dates
7.WL.FrOrSp.2339	uses the verb "to go" with places and expresses future activities
7.WL.FrOrSp.2340	expresses feelings and temporary conditions
7.WL.FrOrSp.2341	uses the verb "to have" with appropriate expressions
7.WL.FrOrSp.2342	uses regular and some irregular present tense verbs
7.WL.FrOrSp.2343	uses appropriate vocabulary
7.WL.FrOrSp.2344	expresses possession
7.WL.FrOrSp.2345	reads simple paragraphs and/or dialogues with basic comprehension
7.WL.FrOrSp.2346	demonstrate listening comprehension skills through watching language and cultural videos in Spanish and French.
7.WL.FrOrSp.2347	writes a guided paragraph using appropriate vocabulary
7.WL.FrOrSp.2348	demonstrates cultural customs and/or discusses customs from target cultures
7.WL.FrOrSp.2349	explains how the language came to be spoken in various parts of the world

TOPIC: Principles

- 8.ArtA.Princ.2977 identify the basic elements and principles of an art form, appropriate to grade level
- 8.ArtA.Princ.2978 create and/or perform works of art using the basic elements and principles to solve specific visual or performing arts problems
- 8.ArtA.Princ.2979 actively engage the creative processes in solving problems
- 8.ArtA.Princ.2980 compare and contrast multiple purposes for creating works of art
- 8.ArtA.Princ.2981 demonstrate a sensitivity to the role of unity in a work of art and how the principles of harmony, balance, contrast, emphasis, pattern, rhythm, and movement help to create this unity
- 8.ArtA.Princ.2982 articulate own interpretation of what an artist is trying to communicate
- 8.ArtA.Princ.2983 explain how subject matter, symbols, and ideas in works of art can communicate meaning
- 8.ArtA.Princ.2984 demonstrate a sensitivity to the aesthetic issues, and the visual and intellectual pleasure that can be derived from creating and/or viewing art
- 8.ArtA.Princ.2985 discuss works of art from a variety of cultures and historical periods
- 8.ArtA.Princ.2986 discuss how time and place influence the aesthetic and conceptual characteristics of a work of art

TOPIC: Careers

- 8.Bnd.Car.3504 survey the range of careers in the field of music

TOPIC: Culture

- 8.Bnd.Cult.3503 identify and compare the purpose music serves in several cultures around the world

TOPIC: Listening and Responding to Music

- 8.Bnd.LisRM.3476 recognize the basic principles of meter, rhythm, tonality, intervals, chords and harmonic progressions in various works of music at grade level three or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)
- 8.Bnd.LisRM.3477 describe and evaluate the quality of personal and group performances in a variety of musical compositions at grade level three or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)
- 8.Bnd.LisRM.3502 describe distinguishing characteristics of musical works from various genres and styles

TOPIC: Performance

- 8.Bnd.Perf.3474 demonstrate an understanding of proper tone production on various musical works at grade level three or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Reading and Notation

- 8.Bnd.ReadNot.3475 define standard notation symbols for pitch, rhythm, dynamics, tempo, articulation and expression for music at grade level three or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Careers

- 8.Chor.Car.3512 survey the range of careers in the field of music

TOPIC: Culture

- 8.Chor.Cult.3511 identify and compare the purpose music serves in several cultures around the world

TOPIC: Listening and Responding to Music

- 8.Chor.LisRM.3509 describe and evaluate the quality of personal and group performances in a variety of musical compositions
- 8.Chor.LisRM.3510 describe distinguishing characteristics of musical works from various genres and styles, for example: Sacred, Secular and Patriotic music
- 8.Chor.LisRM.3483 recognize the basic principles of meter, rhythm, tonality, intervals, chords and harmonic progressions in various works of music at grade level three or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Performance

- 8.Chor.Perf.3481 demonstrate an understanding of proper vocal technique on various musical works at grade level three or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Reading and Notation

- 8.Chor.ReadNot.3482 define standard notation symbols for pitch, rhythm, dynamics, tempo, articulation and expression for music at grade level three or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

GRADE:8 **SUBJECT: Family and Consumer Science**

TOPIC: Career Development

- 8.FSC.CarDev.3356 describe workplace transferable skills
8.FSC.CarDev.3357 communicate personal attributes related to leadership and student's potential

TOPIC: Consumer and Family Resources

- 8.FSC.ConFR.3355 analyze policies that support consumer rights and responsibilities

TOPIC: Nutrition and Fitness

- 8.FSC.NutFit.3354 demonstrate food safety and sanitation procedures
8.FSC.NutFit.2123 describe the nutritional value found in each of the food groups represented on the food guide pyramid and identify food sources of each of the nutrients

TOPIC: Problem Solving, Reading

- 8.FSC.PrSolRd.2120 demonstrate the ability to follow directions to complete projects (i.e. sewing project, cooking labs)

TOPIC: Resource Management

- 8.FSC.ResMan.2122 competently use equipment to solve problems in and around the home

TOPIC: Safety in the home and workplace

- 8.FSC.SafHW.2118 demonstrate safe behaviors in and around the home and workplace

GRADE:8 **SUBJECT: Health**

TOPIC: Health

- 8.Hlth.Hlth.2014 identify the reproductive parts of the male and female reproductive systems
8.Hlth.Hlth.3347 identify the short term and long term effects of alcohol, tobacco and other drugs
8.Hlth.Hlth.3348 explain the importance of decision making in regard to sexual activity
8.Hlth.Hlth.3349 identify what HIV and other sexually transmitted are and how to prevent them
8.Hlth.Hlth.3350 identify ways to prevent pregnancy
8.Hlth.Hlth.3351 identify how to manage stress
8.Hlth.Hlth.3352 identify what occurs with fetal development during each stage of pregnancy
8.Hlth.Hlth.3353 identify the positive and negative influences on alcohol, tobacco and other drugs

GRADE:8 **SUBJECT: Info. Literacy and Comp. Tech.**

TOPIC: Computer Technology

- 8.ILCT.CmpTch.2494 design, publish and present products (e.g. web pages, publications, etc.) using technology resources that demonstrate and communicate curriculum concepts to audiences, inside and outside the classroom
8.ILCT.CmpTch.2495 create and use databases to access, organize and analyze information to create reports
8.ILCT.CmpTch.2283 use proper keyboarding techniques
8.ILCT.CmpTch.2287 understand the ethical, cultural, and societal issues related to technology
8.ILCT.CmpTch.2325 use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences (i.e. through teacher email or "ask the experts" on organizational websites)
8.ILCT.CmpTch.2326 use technology to locate, evaluate, and collect information from a variety of sources

TOPIC: Information Literacy

- 8.ILCT.InfoLit.2493 evaluate, extract, and record relevant information using keywords or phrases
8.ILCT.InfoLit.2093 select sources appropriate for the information needed

8.ILCT.InfoLit.2094	develop appropriate search strategies using print and electronic resources
8.ILCT.InfoLit.2095	locate and evaluate information found in electronic resources
8.ILCT.InfoLit.2097	synthesize information from a variety of sources: print and electronic

GRADE:8 **SUBJECT: Language Arts/ Reading**

TOPIC: Comprehension

8.LA/R.Comp.3130	continue to develop an understanding that reading is a process and apply before, during, and after reading strategies
8.LA/R.Comp.3131	demonstrate an understanding of literary text through summarizing, paraphrasing, or sequencing major events
8.LA/R.Comp.3132	analyze and interpret elements of literary texts
8.LA/R.Comp.3133	demonstrate understanding of informational text use
8.LA/R.Comp.3134	analyze and interpret informational texts

TOPIC: Word Study

8.LA/R.WordSt.3135	use strategies to identify the meaning of unfamiliar vocabulary including prefixes, suffixes, and base words, context clues, and parts of speech
8.LA/R.WordSt.3136	express an understanding of synonyms, antonyms, homonyms, multiple meanings, as well as figurative language

GRADE:8 **SUBJECT: Language Arts/General**

TOPIC: Listening, Speaking, Viewing

8.LA/G.LisSV.2046	continue to develop speaking, viewing, and listening skills
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TOPIC: Reading/ ELA

8.LA/G.Read/ELA.2038	make and support analytical judgments about literary or informational texts
8.LA/G.Read/ELA.2039	show an understanding of plot/ideas/concepts in response to literary or informational texts

TOPIC: Writing

8.LA/G.Wri.2041	demonstrate command of the structures of sentences, paragraphs, and texts
8.LA/G.Wri.2042	demonstrate the habit of writing through the writing process and the six traits plus one
8.LA/G.Wri.2044	create a story line and apply narrative strategies
8.LA/G.Wri.3139	apply rules of grammar, usage, and mechanics in writing

TOPIC: Writing, Information Literacy

8.LA/G.WriIL.2043	use reports, procedures, or persuasive writing to organize and convey information gathered through research
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GRADE:8 **SUBJECT: Math/Algebra1**

TOPIC: Algebra and Functions

8.Ma/A1.AlgFunc.5014	simplify and evaluate algebraic expressions utilizing the order of operations and the distributive property. (e.g. $2(x+2) = 29-3x$; $x=5$) Convert verbal sentences into algebraic equations and solve
8.Ma/A1.AlgFunc.5018	recognize and evaluate relations and functions. Express relations as order pairs, in table format, graphs, and through mapping. Identify and recognize the domain and range within a relation.
8.Ma/A1.AlgFunc.5019	demonstrate conceptual understanding of linear relationships, linear and nonlinear functions. (e.g. $g(x) = x^2+3x-2$ where if $x=0$; then $g(x)=-2$. Use technology when appropriate
8.Ma/A1.AlgFunc.5020	determine a line's slope and x and y intercepts from its graph or linear equation. Graph or find linear equations, in standard form, using the point slope, slope - y intercept, and table methods. Explain the significance of a positive, negative, zero, a
8.Ma/A1.AlgFunc.5021	solve and graph simple and compound inequalities. (e.g. $-3 < x-5 < 2$; $2 < x < 7$)
8.Ma/A1.AlgFunc.5022	solve systems of equations using graphing, elimination and substitution methods. Recognize single solution, infinite solutions, and no solution sets. Solve everyday problems that can be modeled using systems of linear equations including uniform motion,
8.Ma/A1.AlgFunc.5023	add, subtract, and multiply polynomials, divide polynomials by monomials
8.Ma/A1.AlgFunc.5024	manipulate polynomials and rational expressions by rearranging and collecting terms, factoring, identifying and canceling common factors, and applying the properties of positive integer exponents. Understand the concept of excluded values. (e.g. $(x+8) /$

8.Ma/A1.AlgFunc.5025 find solutions to quadratic equations (with real roots) by factoring. Solve everyday problems that can be modeled with quadratic equations including area and velocity. Use technology where appropriate.

8.Ma/A1.AlgFunc.5026 perform basic operations on radicals and solve radical equations

TOPIC: Data, Statistics and Probability

8.Ma/A1.DataSP.5027 select, create, and interpret an appropriate graphical representation (e.g. scatter plot, stem and leaf plots, box and whisker plot, line graph) for a set of data and use appropriate statistics (e.g. mean, median, mode, range, and upper and lower quartile)

TOPIC: Geometry and Measurement

8.Ma/A1.Geom&M.5017 demonstrate understanding of location, position, and quadrants of ordered pairs (x,y) on the coordinate plane

TOPIC: Number and Operations

8.Ma/A1.Num&Ops.5015 simplify numerical expressions, including those involving positive integer exponents or the absolute value (e.g. $3(24-9)=45$, $4|3-5|+6=14$), and apply such simplifications in the solution of equations

8.Ma/A1.Num&Ops.5016 define ratios and proportions. Solve equations with proportions. Use proportional reasoning to solve word problems using units of measure appropriately. (e.g. $(x+7)/-4 = (x-12)/6$; $x=3/5$)

GRADE:8

SUBJECT: Math/CMP

TOPIC: Communication and Connections

8.Ma/C.Comm&C.2444 finding the slope of a line, interpret slope as the ratio of vertical change to horizontal change

8.Ma/C.Comm&C.2449 use the language of mathematics to describe and connect mathematical calculations

TOPIC: Computation, Numbers, Numeration, Operations

8.Ma/C.CNNO.2048 read, write and perform basic operations on rational numbers

8.Ma/C.CNNO.2446 explain and apply the order of operations

8.Ma/C.CNNO.2448 use a five function calculator and the functions of a scientific calculator appropriate to a problem

TOPIC: Data Analysis

8.Ma/C.DataAn.2445 collect, analyze, and interpret data using graphs, table and charts

TOPIC: Geometry and Measurement

8.Ma/C.Geom&M.2970 calculate the distance between two points in the plane

8.Ma/C.Geom&M.2971 use the Pythagorean Theorem to solve problems

8.Ma/C.Geom&M.2443 compute the area, volume, and surface area of two and three dimensional figures

TOPIC: Problem Solving and Reasoning

8.Ma/C.PrSolR.2447 reason with equivalent expressions

8.Ma/C.PrSolR.2049 solve problems using proportion, ratio and percent

8.Ma/C.PrSolR.2050 demonstrate the use of several methods to solve algebraic equations (linear and quadratic)

8.Ma/C.PrSolR.2052 solve problems using algebraic equations, mental computation, estimation techniques and measurement skills with all different types of numbers (whole, fractional, decimal, integers)

TOPIC: Problem Solving and Reasoning, Geometry and Measurement

8.Ma/C.PrSolRGM.2051 use mental computation, estimation techniques and measurement skills to check the reasonableness of solutions to problems

GRADE:8

SUBJECT: Music

TOPIC: Careers

8.Mus.Car.3501 survey the range of careers in the field of music

TOPIC: Culture

8.Mus.Cult.3500 identify and compare the purpose music serves in several cultures around the world

TOPIC: Listening and Responding to Music

8.Mus.LisRM.3498 recognize the basic principles of meter, rhythm, intervals, chords and harmonic progressions in a variety of musical works

8.Mus.LisRM.3499 describe distinguishing characteristics of musical works from various genres and styles

TOPIC: Performance

8.Mus.Perf.3496 demonstrate proper finger position and play various melodies in C Major, G Major and F Major on a keyboard instrument

TOPIC: Reading and Notation

8.Mus.ReadNot.3497 define standard notation symbols for pitch, rhythm, dynamics and tempo

GRADE:8 **SUBJECT: Orchestra**

TOPIC: Careers

8.Orch.Car.3508 survey the range of careers in the field of music

TOPIC: Culture

8.Orch.Cult.3507 identify and compare the purpose music serves in several cultures around the world

TOPIC: Listening and Responding to Music

8.Orch.LisRM.3505 describe and evaluate the quality of personal and group performances in a variety of musical compositions

8.Orch.LisRM.3506 describe distinguishing characteristics of musical works from various genres and styles

8.Orch.LisRM.3480 recognize the basic principles of meter, rhythm, tonality, intervals, chords and harmonic progressions in various works of music at grade level three or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Performance

8.Orch.Perf.3478 demonstrate an understanding of proper tone production on various musical works at grade level three or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Reading and Notation

8.Orch.ReadNot.3479 define standard notation symbols for pitch, rhythm, dynamics, tempo, articulation and expression for music at grade level three or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

GRADE:8 **SUBJECT: Physical Education**

TOPIC: Motor Skills

8.PE.MtrSkls.2305 analyze performance using spin and rebound principles in order to learn or improve a skill

TOPIC: Movement Forms

8.PE.MovFrm.2304 demonstrate performance of a variety of movements through individual and dual sports

TOPIC: Physical Education

8.PE.PhysEd.2084 apply movement concepts and principles to the learning and development of motor skills

8.PE.PhysEd.2086 exhibit knowledge of terminology, rules, scoring and etiquette in team, individual and dual sports, specifically in archery

8.PE.PhysEd.2087 achieve and maintain a health enhancing level of physical fitness

8.PE.PhysEd.2088 assess personal fitness, compare scores to a health related standard, and set goals for improvement or maintenance

8.PE.PhysEd.2089 demonstrate accountability for responsible personal and social behavior in physical activity settings, applying appropriate personal and social behavior through a variety of activities

8.PE.PhysEd.2090 demonstrate understanding and respect for differences among people in physical activity setting, and apply to a problem solving activity

8.PE.PhysEd.2091 analyze patterns of physical activity and develop an activity that provides opportunities for enjoyment, challenge, self-expression and social interaction

GRADE:8 **SUBJECT: Science**

TOPIC: Earth Science

8.Sci.EarSci.2061 read a weather map and use it to predict weather for a given area

8.Sci.EarSci.2063 apply concepts of pressure to oceanographic and meteorologic examples

8.Sci.EarSci.3541 explain how Earth events, abruptly and over time, can bring about changes in the ocean floor

8.Sci.EarSci.3542 explain the role of differential heating or convection in ocean currents, winds, weather, weather patterns and the atmosphere

8.Sci.EarSci.3543 explain the processes that cause cycling of water into and out of the atmosphere and their connections to our planet's weather

8.Sci.EarSci.3544 explain how the position of the earth, sun, and moon affects the tides

8.Sci.EarSci.3545 explain how the tides are affected by gravitational force

TOPIC: Earth Science, Safety and Prevention

describe catastrophic meteorologic events

TOPIC: Life Science

8.Sci.LfSci.3553 predict outcomes when abiotic/biotic factors are changed in a marine ecosystem

8.Sci.LfSci.3554 in a marine environment, trace the flow of energy through an ecosystem, beginning with the sun, through organisms in the food web, and into the environment

8.Sci.LfSci.3555 trace how matter cycles among & between organisms and the physical environment

8.Sci.LfSci.3557 show relationships among groups of organisms using the classification system and/or dichotomous keys

TOPIC: Physical Science

8.Sci.PhysSci.3546 given graphic or written information, classify matter as atom/molecule or element/compound. (Include a basic explanation of atomic structure.)

8.Sci.PhysSci.3547 investigate the relationships among general and specific properties of matter

8.Sci.PhysSci.3548 given data about properties of matter, identify, compare, or classify different substances

8.Sci.PhysSci.3549 represent or explain the relationship between or among energy, molecular motion, temperature, and phases of matter

8.Sci.PhysSci.3550 with respect to chemical and heat energy, show that within a system, energy transforms from one form to another

8.Sci.PhysSci.3551 explain that the total amount of mass in a closed system stays the same, regardless of how substances interact

8.Sci.PhysSci.3552 explain that heat energy moves from warmer materials or regions to cooler ones through conduction, convection, and radiation

8.Sci.PhysSci.3556 use appropriate tools to accurately collect and record qualitative & quantitative data gathered through observations

TOPIC: Scientific Investigation, History

8.Sci.SciInvH.2056 discuss major figures in the history of science and their contributions

GRADE:8

SUBJECT: Social Studies/General

TOPIC: Civics

8.SS/G.Civ.2075 identify and interpret the key documents that form the foundation of United States government

TOPIC: Economics

8.SS/G.Econ.2453 explain the early foundations of the United States economic system

TOPIC: Geography

8.SS/G.Geog.2199 construct and interpret maps of the state of New Hampshire dealing with various information (political and physical)

TOPIC: Geography History

8.SS/G.GeogH.2069 analyze the impact that race/ethnicity and gender roles have had on United States history and culture from pre-colonial through the Civil War

TOPIC: History

8.SS/G.Hist.2200 explain and interpret the causes and their historical effects that shaped United States history from pre-colonial times to 1865

8.SS/G.Hist.1929 explain the significance of America's Industrial Revolution and Westward Expansion

8.SS/G.Hist.2073 define revolution and rebellion; explain why revolutions occur and what their impact is from pre-colonial through the Civil War

TOPIC: History Computer Technology

8.SS/G.HistCT.2072 identify the role that technology has played in United States history from pre-colonial through the Civil War

TOPIC: Social Skills and Research Skills

8.SS/G.SSkRS.2454 develop and interpret maps, charts, graphs, and political cartoons which show key information (population, resources, demographic, etc.)

TOPIC: Social Skills and Research Skills, Writing, Information Literacy, History

8.SS/G.SSkRSWH.2068 create a persuasive piece of writing based on a United States history or current event topic

TOPIC: **TBD**

- 8.TechE.TBD.2140 understand different joints used in today's furniture
- 8.TechE.TBD.2141 understand the difference and the use of different types of abrasives

TOPIC: **Technical**

- 8.TechE.Tech.2126 create drawings using Grid and Snap
- 8.TechE.Tech.2127 create drawings using absolute coordinates
- 8.TechE.Tech.2128 create drawings using polar coordinates
- 8.TechE.Tech.2129 create title block drawings using any method
- 8.TechE.Tech.2130 create drawings using circles and arcs
- 8.TechE.Tech.2131 create a set of production drawings using any method
- 8.TechE.Tech.2132 demonstrate basic computer knowledge by saving and retrieving files
- 8.TechE.Tech.2133 be able to plot all drawing created
- 8.TechE.Tech.2134 practice a basic foundation of safety around the machines
- 8.TechE.Tech.2135 identify the basic parts of a board, tree and defects
- 8.TechE.Tech.2136 know and understand the milling process
- 8.TechE.Tech.2137 understand the difference between common building materials used in furniture
- 8.TechE.Tech.2138 safely use hand tools for cutting and layout
- 8.TechE.Tech.2139 demonstrate safety skills when using power tools
- 8.TechE.Tech.2142 understand and use different types of stains and finishes
- 8.TechE.Tech.2143 successfully produce a wood working project

TOPIC: **French OR Spanish**

- 8.WL.FrOrSp.2350 initiates, engages in, and closes a conversation using learned vocabulary
- 8.WL.FrOrSp.2351 expands upon regular and irregular present tense verbs
- 8.WL.FrOrSp.2352 uses reflexive verbs
- 8.WL.FrOrSp.2353 uses comparatives and superlatives in comparing people, places, and things
- 8.WL.FrOrSp.2354 expresses the past
- 8.WL.FrOrSp.2355 uses command form
- 8.WL.FrOrSp.2356 uses present progressive to tell what is happening
- 8.WL.FrOrSp.2357 uses and comprehends direct object and indirect object pronouns
- 8.WL.FrOrSp.2358 expands listening skills beyond previous years
- 8.WL.FrOrSp.2359 reads and/or listens, with comprehension, short stories, poems, songs, and travel information
- 8.WL.FrOrSp.2360 writes guided and self-directed dialogues and short paragraphs on specific topics
- 8.WL.FrOrSp.2361 demonstrates understanding of cultural similarities and differences within the French or Spanish speaking countries
- 8.WL.FrOrSp.2362 understands cultural differences between the Spanish and Francophone speaking countries and English speaking countries

TOPIC: **Principles**

- 9.ArtA.Princ.2240 define, explain, and utilize the basic elements and principles of an art form
- 9.ArtA.Princ.2241 create and/or perform multiple solutions to specific artistic problems
- 9.ArtA.Princ.2242 demonstrate creative problem solving appropriate to grade level
- 9.ArtA.Princ.2243 use a formal process to critique a work of art: description, analysis, interpretation, judgment
- 9.ArtA.Princ.2244 explain how subject matter, symbols, and ideas in a work of art can communicate meaning

9.ArtA.Princ.2245	explain how the elements and principles of the art form were used to solve a problem or express an idea or emotion
9.ArtA.Princ.2246	demonstrate an understanding and sensitivity to the differences and similarities between art, philosophy, science, and religion as approaches for defining human concepts of reality and reflecting the human condition
9.ArtA.Princ.2247	differentiate among a variety of historical and cultural contexts in terms of characteristics and purposes of works of art
9.ArtA.Princ.2248	interpret the meaning of specific art pieces within varied cultures, times, and places
9.ArtA.Princ.2249	analyze relationships of works of art to one another in terms of history, aesthetics, and culture

GRADE:9 10 11 12 SUBJECT: Business and Computer Education

TOPIC: Computer Education

9.BCE.CompEd.2988	uses common productivity and web based software (e.g. Office Suite, HTML, QBasic, Flash, Web browser, PageMaker, Photoshop, Cisco software, Thompson course technology courseware, or Yeartech courseware)
9.BCE.CompEd.2989	uses a variety of multimedia software and equipment (e.g. scanner, digital camera, video cam, projectors, CD drives, PageMaker, Flash, Dreamweaver, Fireworks, PowerPoint, Photoshop, Qbasic, Yeartech, or In-Design)
9.BCE.CompEd.2990	configures computers and basic network configurations (e.g. file management, reset computers, creating and controlling networks or adding and selecting printers)
9.BCE.CompEd.2991	applies programming concepts used in software development (e.g. HTML, JavaScript, Q Basic, XML, Macros, or Flash)

TOPIC: Information Literacy

9.BCE.InfoLit.2992	evaluates and selects information appropriate to the topic
9.BCE.InfoLit.2993	synthesizes (assembles) facts, opinions, and point of view appropriate to one's work
9.BCE.InfoLit.2994	uses information responsibly and ethically

GRADE:9 SUBJECT: Health

TOPIC: Nutrition and Fitness

9.Hlth.NutFit.2264	assess own eating habits and determine changes necessary for developing a healthy eating lifestyle
9.Hlth.NutFit.2265	assess own fitness level and develop and implement a personal fitness plan

TOPIC: Safety and Prevention

9.Hlth.SafPrev.2260	analyze the effects of emotions and stress on one's life and describe ways to deal with these situations
9.Hlth.SafPrev.2261	identify the prevention, symptoms and treatment of communicable and non-communicable diseases (STDs)
9.Hlth.SafPrev.2262	identify common emergencies and perform proper first aid and CPR techniques
9.Hlth.SafPrev.2263	distinguish between use, misuse and abuse of alcohol, drugs and tobacco

TOPIC: Self Esteem and Family Life

9.Hlth.SEstmFL.2266	describe appropriate behavior in dating relationships
9.Hlth.SEstmFL.2267	list methods of dealing with conflict, including conflict resolution strategies
9.Hlth.SEstmFL.2268	explain sexual harassment and describe the reporting process

GRADE:9 10 11 12 SUBJECT: Info. Literacy and Comp. Tech.

TOPIC: Computer Technology

9.IICT.CmpTch.2327	use Windows to control file management
9.IICT.CmpTch.2328	demonstrate the appropriate Windows function to control hardware and software
9.IICT.CmpTch.2330	use software to solve curriculum-related problems
9.IICT.CmpTch.2331	integrate software to accomplish a variety of tasks and problems
9.IICT.CmpTch.2332	develop and present a multimedia presentation at each identified curriculum access point related to student coursework to demonstrated content related knowledge.

TOPIC: Information Literacy

- 9.ILCT.InfoLit.2496 develops appropriate search strategies to efficiently locate information
- 9.ILCT.InfoLit.2497 evaluates and selects information appropriate to the topic
- 9.ILCT.InfoLit.2498 synthesizes (assembles) facts, opinions, and point of view appropriate to one's work
- 9.ILCT.InfoLit.2499 uses information responsibly and ethically
- 9.ILCT.InfoLit.2269 independently formulates topic, question or problem to be researched, incorporating existing knowledge and revising topic according to information gathered

GRADE:9**SUBJECT: Language Arts/ English****TOPIC: Listening, Speaking, Viewing**

- 9.LA/E.LisSV.2150 participate in group discussions and formal presentations (e.g., evaluate accuracy, relevance, organization of information; evaluate clarity of delivery; evaluate relationships among purpose, audience, content; identify types of arguments used)
- 9.LA/E.LisSV.2151 ask questions that enrich classroom discussions

TOPIC: Reading

- 9.LA/E.Read.2144 represent key ideas and supporting details from reading in outline or paragraph form
- 9.LA/E.Read.2145 given a passage with unfamiliar vocabulary, use context clues for comprehension

TOPIC: Writing

- 9.LA/E.Wri.2146 write creative and persuasive pieces with strong ideas and content, organization, conventions, word choice, voice and sentence fluency
- 9.LA/E.Wri.2147 identify parts of speech and the components of a sentence
- 9.LA/E.Wri.2148 compare and contrast various structures in writing
- 9.LA/E.Wri.2149 structure writing in an organized and coherent manner with specific supports that expand upon and reinforce the main idea

GRADE:9 10 11 12 SUBJECT: Math/Algebra1**TOPIC: Algebra and Functions**

- 9.Ma/A1.AlgFunc.3090 simplify and evaluate algebraic expressions utilizing the order of operations and the distributive property. (e.g. $2(x+2) = 29-3x$; $x=5$) Convert verbal sentences into algebraic equations and solve
- 9.Ma/A1.AlgFunc.3094 recognize and evaluate relations and functions. Express relations as order pairs, in table format, graphs, and through mapping. Identify and recognize the domain and range within a relation.
- 9.Ma/A1.AlgFunc.3095 demonstrate conceptual understanding of linear relationships, linear and nonlinear functions. (e.g. $g(x) = x^2+3x-2$ where if $x=0$; then $g(x)=-2$. Use technology when appropriate
- 9.Ma/A1.AlgFunc.3096 determine a line's slope and x and y intercepts from its graph or linear equation. Graph or find linear equations, in standard form, using the point slope, slope - y intercept, and table methods. Explain the significance of a positive, negative, zero, an undefined slope, as well as slopes of perpendicular and parallel lines. Use technology when appropriate.
- 9.Ma/A1.AlgFunc.3097 solve and graph simple and compound inequalities. (e.g. $-3 < x-5 < 2$; $2 < x < 7$)
- 9.Ma/A1.AlgFunc.3098 solve systems of equations using graphing, elimination and substitution methods. Recognize single solution, infinite solutions, and no solution sets. Solve everyday problems that can be modeled using systems of linear equations including uniform motion, mixture, and work problems using units of measure appropriately. Use technology when appropriate.
- 9.Ma/A1.AlgFunc.3099 add, subtract, and multiply polynomials, divide polynomials by monomials
- 9.Ma/A1.AlgFunc.3100 manipulate polynomials and rational expressions by rearranging and collecting terms, factoring, identifying and canceling common factors, and applying the properties of positive integer exponents. Understand the concept of excluded values. (e.g. $(x+8) / (x^2+11x+24)$; $1 / (x+3)$ where x cannot equal -3.)
- 9.Ma/A1.AlgFunc.3101 find solutions to quadratic equations (with real roots) by factoring. Solve everyday problems that can be modeled with quadratic equations including area and velocity. Use technology where appropriate.
- 9.Ma/A1.AlgFunc.3102 perform basic operations on radicals and solve radical equations

TOPIC: Data, Statistics and Probability

- 9.Ma/A1.DataSP.3103 select, create, and interpret an appropriate graphical representation (e.g. scatter plot, stem and leaf plots, box and whisker plot, line graph) for a set of data and use appropriate statistics (e.g. mean, median, mode, range, and upper and lower quartiles) to communicate information about the data. Understand and apply differences between probability and odds. Use technology where appropriate.

TOPIC: Geometry and Measurement

- 9.Ma/A1.Geom&M.3093 demonstrate understanding of location, position, and quadrants of ordered pairs (x,y) on the coordinate plane

TOPIC: Number and Operations

- 9.Ma/A1.Num&Ops.3091 simplify numerical expressions, including those involving positive integer exponents or the absolute value (e.g. $3(24-9)=45$, $4|3-5|+6=14$), and apply such simplifications in the solution of equations
- 9.Ma/A1.Num&Ops.3092 define ratios and proportions. Solve equations with proportions. Use proportional reasoning to solve word problems using units of measure appropriately. (e.g. $(x+7)/-4 = (x-12)/6$; $x=3/5$)

GRADE:9 10 11 12 SUBJECT: Math/Algebra2

TOPIC: Algebra and Functions

- 9.Ma/A2.AlgFunc.3522 simplify and evaluate algebraic expressions utilizing the order of operations and the distributive property (e.g. $2(x+2)=29-3x$; $x=5$). Convert everyday problems into algebraic equations and solve. Demonstrate an understanding of absolute value equations and solve equations and inequalities involving absolute value.
- 9.Ma/A2.AlgFunc.3523 determine a line's slope and x and y intercepts from its graph or linear equation. Graph or find linear equations, in standard form, using the point slope, slope - y intercept, and table methods. Explain the significance of a positive, negative, zero, an undefined slope, as well as slopes of perpendicular and parallel lines. Graph linear inequalities and systems of such inequalities. Use technology when appropriate.
- 9.Ma/A2.AlgFunc.3524 solve and graph simple and compound inequalities (e.g. $-3<x-5<2$; $2<x<7$)
- 9.Ma/A2.AlgFunc.3525 solve systems of equations using graphing, elimination and substitution methods. Recognize single solutions, infinite solutions, and no solution sets. Solve everyday problems that can be modeled using systems of linear equations including uniform motion and mixture problems using units of measure appropriately. Use technology when appropriate.
- 9.Ma/A2.AlgFunc.3526 add, subtract, and multiply polynomials. Factor polynomials by using the GCF, by recognizing special products and by grouping terms. Solve polynomial equations and solve word problems by using polynomial equations.
- 9.Ma/A2.AlgFunc.3527 simplify quotients by use of the laws of exponents. Simplify expressions involving zero, positive and negative exponents. Extend the meaning of exponents to include rational numbers.
- 9.Ma/A2.AlgFunc.3528 write rational expressions in simplest form. Perform the four basic operations on rational expressions. Simplify complex fractions and solve fractional equations.
- 9.Ma/A2.AlgFunc.3529 perform basic operations on radicals and solve radical equations. Use the number "i" to simplify square roots of negative numbers. Perform the four basic operations on complex numbers.
- 9.Ma/A2.AlgFunc.3530 apply the basic properties of logarithms.
- 9.Ma/A2.AlgFunc.3531 solve quadratic equations by factoring and using the quadratic formula. Recognize and solve equations in quadratic form. Solve word problems by using the quadratic formula.
- 9.Ma/A2.AlgFunc.3532 divide one polynomial by another polynomial of lower or equal degree. Use synthetic division to divide a polynomial by a first degree binomial. Use the remainder and factor theorems to factor polynomials and solve polynomial equations.
- 9.Ma/A2.AlgFunc.3533 identify arithmetic and geometric sequences. Predict the nth term in arithmetic and geometric sequences, sum arithmetic and geometric series. Solve word problems using arithmetic and geometric sequences and series.

GRADE:9 10 11 12 SUBJECT: Math/Geometry

TOPIC: Geometry and Measurement

- 9.Ma/G.Geom&M.3104 use the attributes, geometric properties or theorems and postulates involving points, lines, planes, and angles to solve problems in mathematical situations or justify solutions to problems (e.g. Student can apply the Segment and Angle Addition Postulates to solve problems or justify solutions.)
- 9.Ma/G.Geom&M.3105 apply theories of logic including conditional statements and their converses, counter examples, and deductive reasoning in algebraic and geometric proofs

9.Ma/G.Geom&M.3106	demonstrate conceptual understanding of the properties and relationships involving parallel and perpendicular lines through recognizing and solving problems involving special pairs of angles including congruent angles, complementary and supplementary angles, vertical angles, corresponding angles, alternate interior angles, and consecutive interior angles
9.Ma/G.Geom&M.3107	recognize classifications of triangles by their sides and angles. Apply congruence and similarity correspondences and properties of the figures to find missing parts of geometric figures and provide logical justification (e.g. SSS, ASA, SAS, AAS, HL, SAS similarity, SSS similarity, Triangle Proportionality, and Triangle Angle-Bisector Theorems and postulates)
9.Ma/G.Geom&M.3108	analyze characteristics and properties of special quadrilaterals including parallelograms, rectangles, squares, rhombi, trapezoids, and isosceles trapezoids
9.Ma/G.Geom&M.3109	recognize and apply inequality theorems involving one and two triangles
9.Ma/G.Geom&M.3110	recognize and solve right triangle problems using geometric means, Pythagorean Theorem, Special Right Triangles (e.g. 30° - 60° - 90° triangles and 45° - 45° - 90° triangles), and Right Triangle Trigonometry
9.Ma/G.Geom&M.3111	define and apply properties and theorems of chords, arcs, and angles (central angles, inscribed angles, angles formed by tangents, secants, and chords) to solve problems involving circles. Solve problems by applying lengths of chords, secant segments, and tangent segments.
9.Ma/G.Geom&M.3112	understand and apply formulas to calculate perimeter, circumference, arc length, and area of common geometric figures such as parallelograms, triangles, trapezoids, circles, sectors, and regular polygons. Use units of measure consistently and appropriately when solving problems.
9.Ma/G.Geom&M.3113	understand and apply formulas to find lateral area, surface area, and volume of prisms, pyramids, cylinders, cones, and spheres. Use units of measure consistently and appropriately when solving problems.
9.Ma/G.Geom&M.3114	demonstrate conceptual understanding of symmetry, congruency, and similarity involving reflections, translations, rotations, and dilations

GRADE:9 10 11 12 SUBJECT: Math/Pre-Algebra

TOPIC: Algebra and Functions

9.Ma/PA.AlgFunc.3039	Simplify and evaluate algebraic expressions utilizing the order of operations and the distributive property. Convert verbal sentences into algebraic equations and solve. (e.g. $2(x+2) = 29-3x$; $x=5$)
9.Ma/PA.AlgFunc.3043	Recognize and evaluate relations and functions. Express relations as order pairs, in table format, graphs, and through mapping. Identify and recognize the domain and range within a relation.
9.Ma/PA.AlgFunc.3044	Determine a line's slope and x and y intercepts from its graph or linear equation. Graph linear equations using the slope - y intercept and table methods. Explain the significance of a positive, negative, zero, and undefined slope. Use technology when appropriate.
9.Ma/PA.AlgFunc.3045	solve and graph simple inequalities. (e.g. $-3 < x - 5$; $2 < x$)
9.Ma/PA.AlgFunc.3046	add, subtract, and multiply polynomials
9.Ma/PA.AlgFunc.3047	manipulate polynomials by rearranging and collecting terms, factoring, and applying the properties of positive integer exponents
9.Ma/PA.AlgFunc.3048	perform basic operations on radicals

TOPIC: Data, Statistics and Probability

9.Ma/PA.DataSP.3049	select, create, and interpret an appropriate graphical representation (e.g. scatter plot, stem and leaf plots, box and whisker plot, line graph) for a set of data and use appropriate statistics (e.g. mean, median, mode and range) to communicate information about the data. Understand and apply differences between probability and odds. Use technology where appropriate.
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TOPIC: Geometry and Measurement

9.Ma/PA.Geom&M.3042	demonstrate understanding of location, position, and quadrants of ordered pairs (x,y) on the coordinate plane
9.Ma/PA.Geom&M.3050	calculate area and perimeter of simple polygons
9.Ma/PA.Geom&M.3051	solve simple triangle problems using the triangle angle sum property and/or Pythagorean theorem

TOPIC: Number and Operations

9.Ma/PA.Num&Ops.3040 Simplify numerical expressions, including those involving positive integer exponents or the absolute value (e.g. $3(24-9)=45$, $4|3-5|+6=14$) and apply such simplifications in the solution of problems.

9.Ma/PA.Num&Ops.3041 Define ratios and proportions. Solve equations with proportions. Use proportional reasoning to solve word problems using units of measure appropriately. (e.g. $(x+7)/-4 = (x-12)/6$; $x=3/5$)

GRADE:9

SUBJECT: Physical Education

TOPIC: Nutrition and Fitness

9.PE.NutFit.2175 demonstrate appropriate levels of muscular strength, endurance, coordination, agility, power and flexibility

9.PE.NutFit.2177 exhibit good health habits

9.PE.NutFit.2178 demonstrate skills in activities for a physically active lifestyle with an emphasis on traditional team sports, outdoor education, and fitness

TOPIC: Self Esteem and Family Life

9.PE.SEstmFL.2176 demonstrate an appreciation for and an understanding of others in various types of situations

GRADE:9

SUBJECT: Science

TOPIC: Change

9.Sci.Change.5090 Explain relationships between and among electric charges, magnetic fields, electromagnetic forces, and atomic particles.

TOPIC: Composition

9.Sci.Comp.5086 Recognize scientific thought about atoms has changed over time. Using information (narratives or models of atoms) provided, cite evidence that changed our understanding of the atom and the development of atomic theory.

9.Sci.Comp.5087 Model and explain the structure of an atom or explain how an atom's electron configuration, particularly the outermost electron(s), determines how that atom can interact with other atoms.

TOPIC: Conservation

9.Sci.Cnsrvtn.5091 Demonstrate how transformations of energy produce some energy in the form of heat and therefore the efficiency of the system is reduced (chemical, biological, and physical systems).

TOPIC: Energy

9.Sci.Energy.5092 Using information provided about chemical changes, draw conclusions about the energy flow in a given chemical reaction (e.g., exothermic reactions, endothermic reactions).

TOPIC: Environment

9.Sci.Envirmnt.5083 Using data from a specific ecosystem, explain relationships or make predictions about how environmental disturbance (human impact or natural events) affects the flow of energy or cycling of matter in an ecosystem.

9.Sci.Envirmnt.5084 Explain or evaluate potential bias in how evidence is interpreted in reports concerning a particular environmental factor that impacts the biology of humans.

TOPIC: Forces

9.Sci.Forces.5093 Given information (e.g., graphs, data, diagrams), use the relationships between or among force, mass, velocity, momentum, and acceleration to predict and explain the motion of objects.

TOPIC: Fossils and Geologic Time

9.Sci.FssGeoTm.5074 Relate how geologic time is determined using various dating methods (e.g., radioactive decay, rock sequences, fossil records).

TOPIC: Motion

9.Sci.Motion.5094 Apply the concepts of inertia, motion, and momentum to predict and explain situations involving forces and motion, including stationary objects and collisions.

9.Sci.Motion.5095 Explain the effects on wavelength and frequency as electromagnetic waves interact with matter (e.g., light diffraction, blue sky).

TOPIC: Observation of the Earth from Space

9.Sci.ObErtSpc.5075 Provided with geologic data (including movement of plates) on a given locale, predict the likelihood for an earth event (e.g. volcanoes, mountain ranges, islands, earthquakes, tides, tsunamis).

TOPIC: Processes & Rates of Change

9.Sci.PrRtsChg.5076 Provide supporting geologic/geographic evidence that supports the validity of the theory of plate tectonics.

9.Sci.PrRtsChg.5077 Trace the development of the theory of plate tectonics.

TOPIC: Processes and Rates of Change, Energy

9.Sci.PrRtChEn.5078 Explain how internal and external sources of heat (energy) fuel geologic processes (e.g., rock cycle, plate tectonics, sea floor spreading).

TOPIC: Properties

9.Sci.Propertes.5088 Use physical and chemical properties as determined through an investigation to identify a substance.

9.Sci.Propertes.5089 Explain how properties of elements and the location of elements on the periodic table are related.

TOPIC: Recycling of Materials

9.Sci.RcIngMat.5085 Trace the cycling of matter (e.g., carbon cycle) and the flow of energy in a living system from its source through its transformation in cellular, biochemical processes (e.g., photosynthesis, cellular respiration, fermentation).

TOPIC: Stars and Galaxies

9.Sci.StrsGalx.5079 Explain the relationships between or among the energy produced from nuclear reactions, the origin of elements, and the life cycles of stars.

TOPIC: Universe

9.Sci.Universe.5080 Provide scientific evidence that supports or refutes the “Big Bang” theory of how the universe was formed.

9.Sci.Universe.5081 Based on the nature of electromagnetic waves, explain the movement and location of objects in the universe or their composition (e.g., red shift, blue shift, line spectra).

9.Sci.Universe.5082 Explain how scientific theories about the structure of the universe have been advanced through the use of sophisticated technology (e.g., space probes and visual, radio and x-ray telescopes).

GRADE:9 SUBJECT: Social Studies/General

TOPIC: Civics

9.SS/G.Civ.2173 analyze the impact of governments on their civilizations

9.SS/G.Civ.2174 explain how participation in and understanding of the development of government is important from a world perspective

TOPIC: Economics

9.SS/G.Econ.2455 explain the basic principals and theories of economic systems

TOPIC: Geography Economics

9.SS/G.GeogEcon.2168 identify key political, economic, military, cultural and religious forces which have had an impact on and shaped our world

9.SS/G.GeogEcon.2169 compare and contrast different cultures and the impact of geography on the development of institutions

TOPIC: History

9.SS/G.Hist.2171 analyze an event in world history from two or more perspectives and interpretations

9.SS/G.Hist.2172 identify and interpret chronological and thematic perspectives of world history and United States history

TOPIC: Social Skills and Research Skills

9.SS/G.SSkRS.2170 develop and interpret world history by using charts, maps, graphs and political cartoons which show key information

GRADE:9 10 11 12 SUBJECT: World language

TOPIC: TBD

9.WL.TBD.2363 demonstrate increasing skills in language proficiency in reading, writing, speaking and listening

9.WL.TBD.2364 ask questions and appropriately interpret a narrated response by a native speaker

9.WL.TBD.2365 explain and support preferences such as foods, sports, school subjects, activities, etc.

9.WL.TBD.2366 demonstrate some understanding of the variety of cultures where the language is spoken, locate them geographically, and discuss cultural similarities and differences

GRADE:10 SUBJECT: Language Arts/ English

TOPIC: Listening, Speaking, Viewing

10.LA/E.LisSV.2186 use appropriate language and delivery for particular audiences and particular purposes (to defend a position, to entertain, to inform, to persuade)

10.LA/E.LisSV.2189 analyze and evaluate complex spoken and audiovisual messages

TOPIC: Listening, Speaking, Viewing Information Literacy

10.LA/E.LisSVIL.2187 make a formal presentation which includes definitions for clarity; supports main ideas using anecdotes, examples, statistics, analogies and other evidence; and uses visual aids or technology

TOPIC: Listening, Speaking, Viewing Writing

10.LA/E.LisSVW.2188 compare form, meaning and usefulness of different kinds of language (e.g., advertising, Internet)

TOPIC: Reading

10.LA/E.Read.2179 analyze the influences of one's responses to a text (e.g., personal values, perspectives and experiences)

10.LA/E.Read.2180 use roots and derivatives to expand vocabulary

TOPIC: Writing

10.LA/E.Wri.2181 incorporate sentence variety in writing

10.LA/E.Wri.2182 write a response to literature in a variety of formats (poetry, vignettes, narratives, etc.)

10.LA/E.Wri.2183 incorporate parts of speech, agreement and sentence structure in the writing process

10.LA/E.Wri.2184 write a literature-based thesis supplemented by additional research

10.LA/E.Wri.2185 compare and contrast concepts through writing

GRADE:10 SUBJECT: Physical Education

TOPIC: Nutrition and Fitness

10.PE.NutFit.2207 demonstrate appropriate levels of muscular strength, endurance, coordination, agility, power and flexibility

10.PE.NutFit.2209 exhibit good health habits and make healthful choices

10.PE.NutFit.2210 assess one's cardiovascular condition in terms of maximum heart rate, target heart rate and resting heart rate

10.PE.NutFit.2211 acquire skills in activities for lasting and carry-over value, especially in the areas of racquet sports, outdoor education and traditional team sports

10.PE.NutFit.2212 participate in and organize tournament play

TOPIC: Self Esteem and Family Life

10.PE.SEstrmFL.2208 demonstrate an appreciation for and an understanding of others in various types of situations

GRADE:10 SUBJECT: Science

TOPIC: Disease

10.Sci.Disease.5101 Use evidence to make and support conclusions about the ways that humans or other organisms are affected by environmental factors or heredity

TOPIC: Evidence of Evolution

10.Sci.EvdcEvol.5099 Explain how evidence from technology supports or refutes the genetic relationships among groups of organisms.

TOPIC: Human Identity

10.Sci.Hmndnty.5102 Explain how the immune system, endocrine system, or nervous system works, and draw conclusions about how systems interact to maintain homeostasis in the human body.

TOPIC: Living Things & Organization

10.Sci.LvgThOrg.5096 Use data and/or observations to explain how cell organelles regulate homeostasis in organisms.

TOPIC: Natural Selection

10.Sci.NatSelct.5100 Recognize and apply the concepts of Mendelian genetics and explain how sexual reproduction results in a great variety of possible gene combinations and contributes to natural selection.

TOPIC: Recycling of Materials

10.Sci.RclngMat.5098 Trace the cycling of matter and energy flow in a living system through its transformation in cellular processes.

TOPIC: Reproduction

10.Sci.Reprod.5097 Explain how the alteration of DNA sequence may produce new gene combinations that are helpful, harmful or make little difference to the organism.

TOPIC: Civics

10.SS/G.Civ.2203 describe how the government functions at the federal level using the US Constitution as the foundation of our government

TOPIC: History

10.SS/G.Hist.2201 analyze an event in United States history from two or more perspectives and interpretations

10.SS/G.Hist.2457 explain and interpret modern United States History from 1865 to the present

10.SS/G.Hist.2458 interpret and analyze key political, economic and social perspectives which shaped United States history

10.SS/G.Hist.2460 analyze the impact that race/ethnicity and gender roles had on U.S. History and culture from Reconstruction to the present

TOPIC: Social Skills and Research Skills

10.SS/G.SSkRS.2459 develop and interpret maps, charts, graphs, and political cartoons which show key information

TOPIC: Listening, Speaking, Viewing

11.LA/E.LisSV.2223 demonstrate respect for diversity in language use, patterns, and dialects across cultures, ethnic groups, geographic regions, and social roles

TOPIC: Listening, Speaking, Viewing Information Literacy

11.LA/E.LisSVIL.2222 interpret and analyze complex spoken and audio-visual messages

TOPIC: Listening, Speaking, Viewing Writing

11.LA/E.LisSVW.2221 defend opinions both in written as well as spoken form

TOPIC: Reading

11.LA/E.Read.2215 read a wide range of print and non-print text to build an understanding of individuals and cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment

11.LA/E.Read.2216 identify, analyze, and interpret literary elements in a variety of contexts

TOPIC: Writing

11.LA/E.Wri.2217 independently utilize new vocabulary in discussions and writing

11.LA/E.Wri.2218 write effectively, demonstrating idea development, organization, word choice, sentence fluency, and the writer's own voice

11.LA/E.Wri.2220 evaluate the role of the written word in society

TOPIC: Writing, Listening, Speaking, Viewing, Information Literacy

11.LA/E.WriLSVIL.2219 use a variety of technological and informational resources to gather and synthesize information and to create and communicate knowledge

TOPIC: Mathematics

11.Ma/PC.Math.5001 manipulate and solve various linear and quadratic functions, including but not limited to, graphing the function, finding slopes, midpoints, identifying parallel and perpendicular lines as well as modeling world situations

11.Ma/PC.Math.5002 graph higher order function polynomials finding relative maximums, minimums and zeros

11.Ma/PC.Math.5004 graph inequalities and use linear programming to solve real world problems

11.Ma/PC.Math.5005 manipulate functions determining their domain, range, zeros, inverse, and be able to compose basic functions

11.Ma/PC.Math.5006 define and apply exponential rules, using natural logarithm as well as logarithmic rules to simplify problems and solve real world applications of both

11.Ma/PC.Math.5007 manipulate conic sections; finding the equation given the graph, finding the graph given the equation

11.Ma/PC.Math.5008 relate and change from radians to degrees, solving for area, arc length, and velocity problems

11.Ma/PC.Math.5009 graph and use the six primary trig functions to solve real world problems. Use sum and difference, half and double angle formulas to solve problems

11.Ma/PC.Math.5010 graph and identify polar equations from equations, graphs, and change between polar and rectangular coordinates

11.Ma/PC.Math.5011	perform a variety of operations with matrices including: addition, scalar multiplication, matrix multiplication, determinants, inverses, solving systems of equations using matrices
11.Ma/PC.Math.5012	define and explain limits as well as find them approaching infinity and specific values
11.Ma/PC.Math.5013	identify, predict terms, and differentiate between arithmetic and geometric sequences and series

GRADE:11 **SUBJECT: Music**

TOPIC: Careers

11.Mus.Car.3521	identify and understand the range of careers in the field of music
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TOPIC: History and Culture

11.Mus.Hist&C.3519	make a connection between music in various eras and cultures
11.Mus.Hist&C.3520	write the lyrics to the "Star Spangled Banner" and other important cultural songs

TOPIC: Listening and Responding to Music

11.Mus.LisRM.3518	express an understanding of form, historical significance, and medium
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TOPIC: Performance

11.Mus.Perf.3513	demonstrate an understanding of simple rhythm reading (through sixteenth notes)
11.Mus.Perf.3514	exhibit an ability to perform major scales and basic chords
11.Mus.Perf.3464	perform alone or with others a musical selection with a grade level of three or higher (Student skill mastery levels are measured on a scale of 1-6 using the New York State School Music Association grading standard)

TOPIC: Reading and Notation

11.Mus.ReadNot.3515	identify notes in the treble and bass clef
11.Mus.ReadNot.3516	recognize the elements of music (i.e. sound, harmony, rhythm, form, melody, etc.)

TOPIC: Vocabulary

11.Mus.Vocab.3517	demonstrate an understanding of basic music vocabulary
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GRADE:11 **SUBJECT: Science**

TOPIC: Change

11.Sci.Change.5107	Explain how atoms can form ions and how electrostatic attraction is fundamental in the formation of ions. Explain how atoms can be bonded together to form compounds through ionic and covalent bonding.
11.Sci.Change.5111	Explain the concept of Avogadro's number and the mole.

TOPIC: Communication Skills

11.Sci.CommSkls.5110	Using scientific vocabulary, notations, and mathematics to improve the communication for scientific knowledge.
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TOPIC: Composition

11.Sci.Comp.5103	Recognize and describe the structure of an atom and how they differ from each other; including the outermost electrons and how they determine how an atom can interact with other atoms.
11.Sci.Comp.5104	Explain the history of the atom and how thought has changed regarding the model of the atom and the atomic theory.

TOPIC: Conducting Scientific Investigations

11.Sci.CndScInv.5109	Select and use apparatus and material safely. Use instruments effectively and accurately for collecting data. Compile and organize data.
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TOPIC: Conservation

11.Sci.Cnsrvtn.5112	Identify types of chemical reactions, predict products, and write balanced chemical equations and explain that chemical reactions can either release or consume energy.
11.Sci.Cnsrvtn.5115	Recognize general properties of acids and bases, including the use of the pH scale.

TOPIC: Energy

11.Sci.Energy.5108	Relate the change of energy flow (exothermic and endothermic) to the reorganization of atoms in a chemical reaction.
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TOPIC: Patterns of Change

11.Sci.PtrnsChg.5114	Using graphs and equations to depict and analyze patterns of change.
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TOPIC: Properties

11.Sci.Proprtes.5105	Use physical and chemical properties as determined through an investigation to identify a substance.
11.Sci.Proprtes.5106	Explain how properties of elements (reactivity, metals, non-metals, metalloids, ionization energy, electronegativity, and relative size of atoms) and the location of elements on the periodic table are related. Explain how the number of electrons is related to the charge.
11.Sci.Proprtes.5113	Recognize the properties of the three states of matter, including the unique behavior under different conditions of temperature and pressure.

GRADE:11 **SUBJECT: Social Studies/ Civics**

TOPIC: Civics

11.SS/C.Civ.3258	explain the meaning of citizenship in the United States
11.SS/C.Civ.3259	understand how citizens exercise the roles, rights and responsibilities of participation in civic life at local, state, and national levels
11.SS/C.Civ.3260	understand how power, authority, and responsibility are distributed, shared, and limited as established by the New Hampshire and United States Constitutions
11.SS/C.Civ.3261	describe the purpose, organization and functions of the local, state, and national government
11.SS/C.Civ.3262	explain how governments and non-governmental agencies around the world interact politically
11.SS/C.Civ.3263	understand the domestic and foreign policy influence the United States has on other nations and how the actions of other nations influence politics and society in the United States

GRADE:11 **SUBJECT: Social Studies/ Economics**

TOPIC: Economics

11.SS/E.Econ.3251	explain the concept of scarcity, and the role it plays in decision making; as well as the opportunity costs involved in all decision making
11.SS/E.Econ.3252	compare & contrast the principal economic systems: traditional, market, command, and mixed; while emphasizing the specifics of the American free enterprise system
11.SS/E.Econ.3253	explain the advantages and disadvantages of the four types of markets (perfect, monopoly, monopolistic and oligopoly) and how the government intervenes to promote competition
11.SS/E.Econ.3254	analyze how the world of work is organized, and how it reflects the competition that exists between employers and employees
11.SS/E.Econ.3255	explain the fundamentals of banking and finance; and how and why interest is applied and calculated
11.SS/E.Econ.3256	explain the advantages and disadvantages of free trade and protectionism; as well as America's role in the world economy
11.SS/E.Econ.3257	develop and interpret charts and graphs which demonstrate key information (supply, demand, market equilibrium, etc.)

GRADE:11 **SUBJECT: Social Studies/General**

TOPIC: Civics

11.SS/G.Civ.2232	explain the emerging role of the United States as a world power and the responsibilities that challenge carries
11.SS/G.Civ.2233	explain the role of an individual in a democratic society and the responsibility to take part in that process
11.SS/G.Civ.2234	explain individual rights and responsibilities as outlined in the Constitution

TOPIC: History

11.SS/G.Hist.2230	explain and interpret modern United States history from 1877 to the present
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TOPIC: History Economics

11.SS/G.HistEc.2231	analyze political, economic, and social perspectives of key events in modern United States history
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TOPIC: Social Skills and Research Skills

11.SS/G.SSRs.2229	develop and interpret maps, charts and graphs which show key information (population, resources, demographics, etc.)
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GRADE:12 **SUBJECT: Language Arts/ English**

TOPIC: Listening, Speaking, Viewing

12.LA/E.LisSV.2238	interpret the political beliefs, positions of social power, and culture, etc. from language use
12.LA/E.LisSV.2239	interpret the purpose of particular language use

TOPIC: Listening, Speaking, Viewing Information Literacy

12.LA/E.LisSVIL.2237 make informed judgments about non print media (e.g., detect elements of persuasion and appeal in advertisements; evaluate the impact of pace, volume, tone, and images on media consumers)

TOPIC: Reading

12.LA/E.Read.2235 identify and analyze the philosophical assumptions and basic beliefs underlying an author's work

12.LA/E.Read.2213 determine figurative, idiomatic, and technical meanings of terms through context

TOPIC: Writing

12.LA/E.Wri.2214 self-edit one's work

12.LA/E.Wri.2236 effectively use and apply various modes of writing

GRADE:12

SUBJECT: Science

TOPIC: Energy, Design Technology, Social Issues (Local and Global)

12.Sci.En,DT,SI.5122 Interpret and apply the conservation laws.

TOPIC: Energy, Forces

12.Sci.EngyFcs.5124 Understand the concepts of electric charge, electric field and electric force. Apply these concepts to understand the behavior of electrical circuits.

TOPIC: Energy, Motion

12.Sci.EngyMtn.5123 Distinguish types of waves, and describe and relate measurable wave properties. Investigate types of wave behavior.

TOPIC: Forces

12.Sci.Forces.5117 Develop and apply structured problem skills using mathematical, graphical, and pictorial methods.

TOPIC: Forces, Motion

12.Sci.FrcsMotn.5118 Apply concepts of motion and force to describe and predict the behavior of objects.