

## Ideas and Beliefs: Variables and Choices

Computer Science	
Computational Thinking	
L1:CT.3	Define an algorithm as a sequence of instructions that can be processed by a computer.
L1:CT.4	Evaluate ways that different algorithms may be used to solve the same problem.
L1:CT.5	Act out searching and sorting algorithms.
Collaboration	
L1:CL.2	Collaboratively design, develop, publish, and present products (e.g., videos, podcasts, websites) using technology resources that demonstrate and communicate curriculum concepts.
Computing Practice & Programming	
L1:CPP.4	Demonstrate an understanding of algorithms and their practical application.
Computers and Communications Devices	
L1:CD.2	Identify a variety of electronic devices that contain computational processors.
Community Global, and Ethical Impacts	
L1:CI.4	Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems.
English Language Arts	
Reading: Literature	
CCSS.ELA-LITERACY.RL.6	Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.
Reading: Informational Text	
CCSS.ELA-LITERACY.RI.8	Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims
CCSS.ELA-LITERACY.RI.10	By the end of the year, read and comprehend literary nonfiction in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.
Writing	
CCSS.ELA-LITERACY.W.1	Write arguments to support claims with clear reasons and relevant evidence.
CCSS.ELA-LITERACY.W.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
Speaking & Listening	
CCSS.ELA-LITERACY.SL.3	Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.
Language	
CCSS.ELA-LITERACY.L.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
Writing in Science & Technical Subjects	
CCSS.ELA-LITERACY.WHS T.1	Write arguments focused on <i>discipline-specific content</i> .
CCSS.ELA-LITERACY.WHS T.10	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Fine Arts	
Creating	
DA:Cr3.1	a. Evaluate possible revisions of dance compositions and, if necessary, consider revisions of artistic criteria based on self-reflection and feedback of others. Explain reasons for choices and how they clarify artistic intent. b. Investigate a recognized system to document a dance sequence by using words, symbols, or media technologies.
MU:Cr2.1	a Select, organize, develop and document personal musical ideas for arrangements, songs, and compositions within AB, ABA, or theme and variation forms that demonstrate unity and variety and convey expressive intent. b Use standard and/or iconic notation and/or audio/ video recording to document personal simple rhythmic phrases, melodic phrases, and harmonic sequences.
Performing/Presenting/Producing	
TH:Pr5.1	a. Participate in a variety of acting exercises and techniques that can be applied in a rehearsal or drama/theatre performance. b. Choose a variety of technical elements that can be applied to a design in a drama/theatre work.
VA:Pr5.1	Based on criteria, analyze and evaluate methods for preparing and presenting art.
Responding	
MA:Re7.1	a. Describe, compare, and analyze the qualities of and relationships between the components in media artworks. b. Describe, compare, and analyze how various forms, methods, and styles in media artworks interact with personal preferences in influencing audience experience.
MU:Re8.1	a Describe a personal interpretation of contrasting works and explain how creators' and performers' application of the elements of music and expressive qualities, within genres, cultures, and historical periods, convey expressive intent.
VA:Re9.1	Compare and explain the difference between an evaluation of an artwork based on personal criteria and an evaluation of an artwork based on a set of established criteria.
Connecting	
MA:Cn10.1	a. Access, evaluate and use internal and external resources to inform the creation of media artworks, such as experiences, interests, research, and exemplary works. b. Explain and show how media artworks form new meanings and knowledge, situations, and cultural experiences, such as learning, and new information.
TH:Cn11.1	a. Incorporate music, dance, art, and/or media to strengthen the meaning and conflict in a drama/theatre work with a particular cultural, global, or historic context.
VA:Cn11.1	Analyze how response to art is influenced by understanding the time and place in which it was created, the available resources, and cultural uses.
Mathematics	
Statistics & Probability	
CCSS.MATH.CO NTENT. 7.SP.A.1	Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.
CCSS.MATH.CO NTENT. 7.SP.A.2	Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions.

CCSS.MATH.CO NTENT. 7..B.3	Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability.
CCSS.MATH.CO NTENT. 7.SP. B.4	Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations.
Physical Education and Health	
Motor Skills and Movement	
S1.M12	Executes consistently (at least 70% of the time) a legal underhand serve to a predetermined target for net/wall games such as badminton, volleyball or pickleball.
S1.M13	Strikes with a mature overhand pattern in a dynamic environment for net/wall games such as volleyball, handball, badminton or tennis.
S1.M14	Demonstrates the mature form of forehand and backhand strokes with a long-handled implement in net games such as badminton or tennis.
S1.M15	Transfers weight with correct timing using low to high striking pattern with a short-handled implement on the forehand side.
S1.M16	Forehand- and backhand-volleys with a mature form and control using a short-handled implement.
S1.M17	Two-hand-volleys with control in a dynamic environment.
Movement and Performance	
S2.M1	Reduces open space by using locomotor movements (e.g., walking, running, jumping & landing, changing size and shape of the body) in combination with movement concepts (e.g., reducing the angle in the space, reducing distance between player and goal).
S2.M2	Executes at least 2 of the following offensive tactics to create open space: uses a variety of passes, pivots and fakes; give & go.
S2.M3	Creates open space by staying spread on offense, and cutting and passing quickly.
Health Enhancement & Fitness	
S3.M6	Participates in moderate to vigorous muscle- and bone-strengthening physical activity at least 3 times a week.
S3.M9	Describes and demonstrates the difference between dynamic and static stretches.
Personal and Social Behavior	
S4.M1	Exhibits responsible social behaviors by cooperating with classmates, demonstrating inclusive behaviors and supporting classmates.
Value of Physical Activity	
S5.M4	Identifies why self-selected physical activities create enjoyment.
Science	
Life Sciences	
LS2-1	Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.
LS2-2	Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
LS2-3	Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.
LS2-4	Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

LS2-5	Evaluate competing design solutions for maintaining biodiversity and ecosystem services.
Engineering Design	
ETS1-1	Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.
English/Science Connections	
CCSS.ELA-LITERACY.RST.1	Cite specific textual evidence to support analysis of science and technical texts.
CCSS.ELA-LITERACY.RST.6	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.
CCSS.ELA-LITERACY.RST.8	Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.
Social/Emotional Learning	
Self-Awareness	
1B.a	Analyze how personal qualities influence choices and successes.
Social Studies	
Economics and Financial Literacy	
NSS-E.4A	Know: People who apply for loans are told what the interest rate on the loan will be; An interest rate is the price of using someone else's money expressed as an annual percentage of the loan principal. Explain that repayment of a loan includes repayment of the principal plus the interest charged. Compute the interest rate when given a principal and an amount of interest. Compute the amount of interest when given the loan principal and the interest rate.
NSS-E.4B	Know: The longer the repayment period on a loan and the higher the interest rate on the loan, the larger is the total amount of interest charged on a loan. Explain and illustrate what happens to the total cost of borrowing under various scenarios, such as higher or lower interest rates or longer or shorter repayment periods.
NSS-E.4C	Know: A credit card purchase is a loan from the financial institution that issued the card; Credit card interest rates tend to be higher than rates for other loans; In addition, financial institutions may charge significant fees related to a credit card and its use. Examine a credit card statement and identify the interest rate and fees charged.
NSS-E.4D	Know: Borrowers who use credit cards for purchases and who do not pay the full balance when it is due pay much higher costs for their purchases because interest is charged monthly; A credit card user can avoid interest charges by paying the entire balance within the grace period specified by the financial institution. For an expensive good purchased using credit, find the total interest paid and the amount still owed after one year when only the minimum payment is made each month. Give advice to a friend explaining what happens to the total cost of borrowing on a credit card when only the minimum payment is made each month.
NSS-E.4E	Know: Various financial institutions and businesses make consumer loans and may charge different rates of interest. Compare the following credit options based on interest rates charged, length of repayment time offered, and fees charged: commercial banks, credit unions, and savings and loans, as well as loans obtained through a variety of other businesses ranging from payday loan stores and pawn shops to credit extended directly by the seller.

NSS-E.4F	Know: Interest rates on loans fluctuate based on changes in the market for loans. Explain why mortgage interest rates might be lower when people are more reluctant to buy houses.
English/Social Studies Connections	
CCSS.ELA-LITERACY.RH.1	Cite specific textual evidence to support analysis of primary and secondary sources.
CCSS.ELA-LITERACY.RH.6	Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).
CCSS.ELA-LITERACY.RH.8	Distinguish among fact, opinion, and reasoned judgment in a text.