

3DuxDesign - Fun With Friction Standard Alignment

X = Core Project Standards

X = Optional Extension Standards

Fun With Friction: Next Generation Science Standards Grade 4		
Energy		
4-PS3-1	Use evidence to construct an explanation relating the speed of an object to the energy of that object.	
4-PS3-2	Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.	
4-PS3-3	Ask questions and predict outcomes about the changes in energy that occur when objects collide.	
4-PS3-4	Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.	
Waves and Information		
4-PS4-1	Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.	
4-PS4-3	Generate and compare multiple solutions that use patterns to transfer information.	
Structure, Function, and Information Processing		
4-PS4-2	Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.	
4-LS1-1	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.	
4-LS1-2	Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.	
Earth's Systems: Processes that Shape the Earth		
4-ESS1-1	Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.	
4-ESS2-1	Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.	
4-ESS2-2	Analyze and interpret data from maps to describe patterns of Earth's features.	
4-ESS3-2	Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.	
3-5 Engineering Design		
3-5-ETS1-1	Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.	X
3-5-ETS1-2	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.	X
3-5-ETS1-3	Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	X

Fun With Friction: Common Core Standards Grade 4		
Reading: Informational Text		
RI. 4.1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	X
RI. 4.2	Determine the main idea of a text and explain how it is supported by key details; summarize the text.	
RI. 4.3	Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.	X
RI. 4.4	Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.	
RI. 4.5	Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.	X
RI. 4.6	Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.	
RI. 4.7	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.	X
RI. 4.8	Explain how an author uses reasons and evidence to support particular points in a text.	
RI. 4.9	Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.	
RI. 4.10	By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.	
Reading: Literature		
RL.4.1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	
RL.4.2	Determine a theme of a story, drama, or poem from details in the text; summarize the text.	
RL.4.3	Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).	
RL.4.4	Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean).	
RL.4.5	Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.	
RL.4.6	Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.	

RL.4.7	Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.	
RL.4.8	(Not applicable to literature)	
RL.4.9	Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.	
RL.4.10	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.	
Reading: Foundational Skills		
RF.4.3	Know and apply grade-level phonics and word analysis skills in decoding words.	
RF.4.3a	Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.	
RF.4.4	Read with sufficient accuracy and fluency to support comprehension.	
RF.4.4a	Read grade-level text with purpose and understanding.	
RF.4.4b	Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression.	
RF.4.4c	Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	
Writing		
W.4.1	Write opinion pieces on topics or texts, supporting a point of view with reasons.	X
W.4.1a	Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose.	X
W.4.1b	Provide reasons that are supported by facts and details.	X
W.4.1c	Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition).	X
W.4.1d	Provide a concluding statement or section related to the opinion presented.	X
W.4.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.	X
W.4.2a	Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.	X
W.4.2b	Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.	X
W.4.2c	Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).	X
W.4.2d	Use precise language and domain-specific vocabulary to inform about or explain the topic.	X
W.4.2e	Provide a concluding statement or section related to the information or explanation presented.	X
W.4.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.	X
W.4.3a	Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.	
W.4.3b	Use dialogue and description to develop experiences and events or show the responses of characters to situations.	
W.4.3c	Use a variety of transitional words and phrases to manage the sequence of events.	
W.4.3d	Use concrete words and phrases and sensory details to convey experiences and events precisely.	X
W.4.3e	Provide a conclusion that follows from the narrated experiences or events.	
W.4.4	Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)	X
W.4.5	With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.	
W.4.6	With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.	
W.4.7	Conduct short research projects that build knowledge about a topic.	X
W.4.8	Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.	X
W.4.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.	X
W.4.9a	Apply grade 4 Reading standards to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions].").	
W.4.9b	Apply grade 4 Reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text").	
W.4.10	Write routinely over extended time frames (time for research, 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.	
Speaking and Listening		
SL.4.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.	X
SL.4.1 a	Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.	X
SL.4.1 b	Follow agreed-upon rules for discussions and carry out assigned roles.	X
SL.4.1 c	Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.	X
SL.4.1 d	Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.	X
SL.4.2	Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	
SL.4.3	Identify the reasons and evidence a speaker provides to support particular points.	

SL.4.4	Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	X
SL.4.5	Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.	X
SL.4.6	Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation.	X
Language		
L.4.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	X
L.4.1a	Use relative pronouns (who, whose, whom, which, that) and relative adverbs (where, when, why).	
L.4.1b	Form and use the progressive (e.g., I was walking; I am walking; I will be walking) verb tenses.	
L.4.1c	Use modal auxiliaries (e.g., can, may, must) to convey various conditions.	
L.4.1d	Order adjectives within sentences according to conventional patterns (e.g., a small red bag rather than a red small bag).	
L.4.1e	Form and use prepositional phrases.	
L.4.1f	Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.	
L.4.1g	Correctly use frequently confused words (e.g., to, too, two; there, their).	
L.4.2	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	X
L.4.2a	Use correct capitalization.	X
L.4.2b	Use commas and quotation marks to mark direct speech and quotations from a text.	X
L.4.2c	Use a comma before a coordinating conjunction in a compound sentence.	X
L.4.2d	Spell grade-appropriate words correctly, consulting references as needed.	X
L.4.3	Use knowledge of language and its conventions when writing, speaking, reading, or listening.	X
L.4.3a	Choose words and phrases to convey ideas precisely.*	
L.4.3b	Choose punctuation for effect.*	
L.4.3c	Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion).	
L.4.4	Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.	
L.4.4a	Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.	
L.4.4b	Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph).	
L.4.4c	Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.	
L.4.5	Demonstrate understanding of figurative language, word relationships and nuances in word meanings.	
L.4.5a	Explain the meaning of simple similes and metaphors (e.g., as pretty as a picture) in context.	
L.4.5b	Recognize and explain the meaning of common idioms, adages, and proverbs.	
L.4.5c	Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).	
L.4.6	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic (e.g., wildlife, conservation, and endangered when discussing animal preservation).	
Math: Operations and Algebraic Thinking Standards		
4.OA.1	Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.	
4.OA.2	Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.	
4.OA.3	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	
4.OA.4	Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.	
4.OA.5	Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.	
Math: Number and Operations in Base Ten Standards		
4.NBT.1	Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.	
4.NBT.2	Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.	
4.NBT.3	Use place value understanding to round multi-digit whole numbers to any place.	
4.NBT.4	Fluently add and subtract multi-digit whole numbers using the standard algorithm.	

4.NBT.5	Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	
4.NBT.6	Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	
Math: Number and Operations Fractions Standards		
4.NF.1	Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.	
4.NF.2	Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1/2$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.	
4.NF.3	Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.	
4.NF.3a	Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.	
4.NF.3b	Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: $3/8 = 1/8 + 1/8 + 1/8$; $3/8 = 1/8 + 2/8$; $2 \frac{1}{8} = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8$.	
4.NF.3c	Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.	
4.NF.3d	Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.	
4.NF.4	Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.	
4.NF.4a	Understand a fraction a/b as a multiple of $1/b$. For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.	
4.NF.4b	Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$. (In general, $n \times (a/b) = (n \times a)/b$.)	
4.NF.4c	Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat $3/8$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?	
4.NF.5	Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express $3/10$ as $30/100$, and add $3/10 + 4/100 = 34/100$.	
4.NF.6	Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $62/100$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.	
4.NF.7	Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.	
Math - Measurement and Data		
4.MD.1	Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...	X
4.MD.2	Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.	
4.MD.3	Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.	X
4.MD.4	Make a line plot to display a data set of measurements in fractions of a unit ($1/2$, $1/4$, $1/8$). Solve problems involving addition and subtraction of fractions by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.	
4.MD.5	Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:	
4.MD.5a	An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $1/360$ of a circle is called a "one-degree angle," and can be used to measure angles.	
4.MD.5b	An angle that turns through n one-degree angles is said to have an angle measure of n degrees.	
4.MD.6	Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.	
4.MD.7	Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.	
Math - Geometry		
4.G.1	Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	
4.G.2	Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.	X
4.G.3	Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.	

Fun With Friction: ISTE Grade 4		
Empowered Learner		
1.1	Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals, informed by the learning sciences.	X
1.1 a	Students articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.	X
1.1 b	Students build networks and customize their learning environments in ways that support the learning process.	X
1.1 c	Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.	
1.1 d	Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.	
Digital Citizen		
1.2	Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.	
1.2 a	Students cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.	
1.2 b	Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.	
1.2 c	Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.	
1.2 d	Students manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.	
Knowledge Constructor		
1.3	Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.	
1.3 a	Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.	X
1.3 b	Students evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.	X
1.3 c	Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.	
1.3 d	Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.	X
Innovative Designer		
1.4	Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.	X
1.4 a	Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.	X
1.4 b	Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.	
1.4 c	Students develop, test and refine prototypes as part of a cyclical design process.	X
1.4 d	Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.	X
Computational Thinker		
1.5	Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.	X
1.5 a	Students formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.	X
1.5 b	Students collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.	
1.5 c	Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.	X
1.5 d	Students understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.	
Creative Communicator		
1.6	Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.	X
1.6 a	Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.	X
1.6 b	Students create original works or responsibly repurpose or remix digital resources into new creations.	X
1.6 c	Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.	X
1.6 d	Students publish or present content that customizes the message and medium for their intended audiences.	X
Global Collaborator		
1.7	Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.	X
1.7 a	Students use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.	
1.7 b	Students use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.	
1.7 c	Students use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.	X
1.7 d	Students explore local and global issues and use collaborative technologies to work with others to investigate solutions.	X