Pacing Guide For Science Curriculum

Grade K

Topic	**Marking Period**	**Number of Days**
Motion & Stability: Forces and Interactions	end of MP 1 and beginning of MP 2	18 to 20 days
Energy	MP 4	7 to 9 days
From Molecules to Organisms: Structures and Processes	end of MP 2 and beginning of MP 3	18 to 20 days
Earth's Systems	MP 3	19 to 22 days
Earth and Human Activity	MP 4	8 to 10 days
Engineering Design	MP 4	7 to 10 days

Alpha Public School
Science Curriculum Map

Grade: KINDERGARTEN

Standard: K-PS-2	**Content Topic:** Motion & Stability: Forces & Interaction

Strand	Disciplinary Core Ideas / Essential Statement	Objective / Essential Question	Science & Engineering Practices / Skills & Lesson
K-PS2-1	--- Pushes and pulls can have different strengths and directions (PS2.A) ---pushing or pulling an object can change the speed or direction of its motion and can start or stop it (PS2.A) ---when objects touch or collide, they push on one another and can change motion (PS2.B) ---- a bigger push or pull makes things speed up or slow down more quickly (PS3.C)	Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. What is the relationship between forces and motion?	Plan and conduct an investigation in collaboration with peers
K-PS2-2	--- Pushes and pulls can have different strengths and directions (PS2.A) ---pushing or pulling an object can change the speed or direction of its motion and can start or stop it (PS2.A) --- A situation that people want to change or create can be approached as a problem to be solved through engineering. Such problems may have acceptable solutions (ETS1.A)	Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull How does a force change the speed or direction of an object?	Analyze data from tests of an object or a tool to determine if it works as intended

Formative, Summative and Alternative Assessments	Benchmark Assessments	Core Instructional and Supplemental Materials (including various texts at each grade level)
Pre Assessment	Assessing Students Learning Rubric	Knowing Science Unit 2.1 and 2.2,

Lab- What is Motion? Lab- How do we measure the distance traveled? Lab- How Fast? Teacher created; guideline 1-3 questions Alternative Assessment: Performance Task	(pg 103)	Knowing Science Literature Knowing Science Vocabulary Flashcards Mystery Science Holt: Science

Technology	Crosscutting Concepts / Interdisciplinary Connections across grade levels and content areas (at least 1)
Measuring Tapes, Timers Mystery Science Force Olympics mysteries 1-4 Google Classroom- Internet Research	**ELA/Literacy – RI.2.1** Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. (K-2-ETS1-1) W.2.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (K-2-ETS1-1),(K-2-ETS1-3) W.2.8 Recall information from experiences or gather information from provided sources to answer a question. (K-2-ETS1-1),(K-2-ETS1-3) SL.2.5 Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings. (K-2-ETS1-2) **Mathematics – MP.2** Reason abstractly and quantitatively. (K-2-ETS1-1),(K-2-ETS1-3) MP.4 Model with mathematics. (K-2-ETS1-1),(K-2-ETS1-3) MP.5 Use appropriate tools strategically. (K-2-ETS1-1),(K-2-ETS1-3) 2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. (K-2-ETS1-1),(K-2-ETS1-3)

Differentiation (IEPs / 504s)	Differentiation (ELL)	Differentiation (G &T)
Visual aids Sentence Frames Modeling Anchor charts	Pre-teach vocabulary Non-linguistic cues Sentence frames Visual aids	http://education.jlab.org/vocabhangman/ Science content vocabulary hangman http://kids.nationalgeographic.com/ National Geographic online

Modify rubric Teacher directed grouping	Manipulatives Graphic organizers Use of educational websites: www.khanacademy.org www.colorincolorado.org/	http://www.bbc.co.uk/schools/scienceclips/ages/10_11/science_10_11.shtml Interactive science activities http://classroom.jc-schools.net/sci-units/plants-animals.htm#Interactive

21st Century Education	Career Education
THEMES: Global Awareness Financial, Economic, Business and Entrepreneurial Literacy Civic Literacy Health Literacy SKILLS: Creativity and Innovation Critical Thinking and Problem Solving Communication and Collaboration Information Literacy Media Literacy ICT Literacy Life and Career Skills	Career Ready Practices describe the career-ready skills that all educators in all content areas should seek to develop in their students. They are practices that have been linked to increase college, career, and life success. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study. CRP1. Act as a responsible and contributing citizen and employee. CRP2. Apply appropriate academic and technical skills. CRP3. Attend to personal health and financial well-being. CRP4. Communicate clearly and effectively and with reason. CRP5. Consider the environmental, social and economic impacts of decisions. CRP6. Demonstrate creativity and innovation. CRP7. Employ valid and reliable research strategies. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP9. Model integrity, ethical leadership and effective management. CRP10. Plan education and career paths aligned to personal goals. CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence.

Alpha Public School
Science Curriculum Map

Standard: K-PS3	**Content Topic:** Energy

Strand	Disciplinary Core Ideas / Essential Statement	Objective / Essential Question	Science & Engineering Practices / Skills & Lesson
K-PS3-1	Sunlight warms Earth's surface (PS3.B)	Make observations to determine the effect of sunlight on Earth's surface. What is the effect of sunlight on Earth's surface?	make observations (firsthand or from media) to collect data that can be used to make comparisons
K-PS3-2	Sunlight warms Earth's surface (PS3.B)	Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area What is the effect of sunlight on Earth's surface?	Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem.

Formative, Summative and Alternative Assessments	Benchmark Assessments	Core Instructional and Supplemental Materials (including various texts at each grade level)
Lab- Why is the sun's energy important? Lab- How does the sun warm Earth's materials? Lab- How can construct an umbrella to stay cool in the sun? Lab- How can we test our umbrella? Teacher created; guideline 1-3 questions Alternative Assessment: Performance Task / Poster	Assessing Student Learning Rubric (pg 82)	Knowing Science Unit 2, Knowing Science Literature, Knowing Science Vocabulary Flashcards Mystery Science Holt: Science

Technology	Crosscutting Concepts / Interdisciplinary Connections across grade levels and content areas (at least 1)
Video about other countries using	---events have causes that generate observable patterns

umbrellas in times other than rain Mystery Science Weather Watching mysteries 5&6	---Scientists use different ways to study the world **ELA/Literacy – W.K.7** Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (K-PS3-1),(K-PS3-2) **Mathematics – K.MD.A.2** Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. (K-PS3-1),(KPS3-2)

Differentiation (IEPs / 504s)	Differentiation (ELL)	Differentiation (G &T)
Visual aids Sentence Frames Modeling Anchor charts Modify rubric Teacher directed grouping	Pre-teach vocabulary Non-linguistic cues Sentence frames Visual aids Manipulatives Graphic organizers Use of educational websites: www.khanacademy.org www.colorincolorado.org/	http://education.jlab.org/vocabhangman/ Science content vocabulary hangman http://kids.nationalgeographic.com/ National Geographic online http://www.bbc.co.uk/schools/scienceclips/ages/10_11/science_10_11.shtml Interactive science activities http://classroom.jc-schools.net/sci-units/plants-animals.htm#Interactive

21st Century Education	Career Education
THEMES: Global Awareness Financial, Economic, Business and Entrepreneurial Literacy Civic Literacy Health Literacy SKILLS: Creativity and Innovation Critical Thinking and Problem Solving Communication and Collaboration Information Literacy Media Literacy ICT Literacy Life and Career Skills	Career Ready Practices describe the career-ready skills that all educators in all content areas should seek to develop in their students. They are practices that have been linked to increase college, career, and life success. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study. CRP1. Act as a responsible and contributing citizen and employee. CRP2. Apply appropriate academic and technical skills. CRP3. Attend to personal health and financial well-being. CRP4. Communicate clearly and effectively and with reason. CRP5. Consider the environmental, social and economic impacts of decisions. CRP6. Demonstrate creativity and innovation. CRP7. Employ valid and reliable research strategies. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP9. Model integrity, ethical leadership and effective management. CRP10. Plan education and career paths aligned to personal goals. CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence.

Alpha Public School
Science Curriculum Map

Standard: K-LS1	**Content Topic:** From Molecules to Organisms: Structures and Processes

Strand	Disciplinary Core Ideas / Essential Statement	Objective / Essential Question	Science & Engineering Practices / Skills & Lesson
K-LS1-1	All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow (LS1.C)	Use observation to describe patterns of what plants and animals (including humans) need to survive. What are the characteristics of a living thing? What are the basic needs of all living things?	Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions.

Formative, Summative and Alternative Assessments	Benchmark Assessments	Core Instructional and Supplemental Materials (including various texts at each grade level)
Living and Nonliving Pictures Living and Nonliving Sorting Basic Needs Plants and Their Basic Needs Animals and Their Basic Needs Humans and Their Habitats Teacher created; guideline 1-3 questions Alternative Assessment: Performance task / picture	Assessment Rubric for Living and Nonliving (pg 48) Assessment Rubric for Basic Needs of Plants (pg 70) Assessment Rubric for Basic Needs of Animals (pg 115) Assessment Rubric for Basic Animal Needs (pg 143)	Knowing Science-Unit 2- Living Things Knowing Science Literature Knowing Vocabulary Science Flashcards Mystery Science Holt: Science

Technology	Crosscutting Concepts / Interdisciplinary Connections across grade levels and content areas (at least 1)
Videos Scissors Mystery Science Plant & Animal Secrets mysteries 1,3,5,6 Google Classroom- Internet Research	**ELA/Literacy – W.K.7** Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (K-LS1-1) **Mathematics – K.MD.A.2** Directly compare two objects with a measurable attribute in common, to see which object has “more of”/”less of” the attribute, and describe the difference. (K-LS1-1)

Differentiation (IEPs / 504s)	Differentiation (ELL)	Differentiation (G &T)
Visual aids Sentence Frames Modeling Anchor charts Modify rubric Teacher directed grouping	Pre-teach vocabulary Non-linguistic cues Sentence frames Visual aids Manipulatives Graphic organizers Use of educational websites: www.khanacademy.org www.colorincolorado.org/	http://education.jlab.org/vocabhangman/ Science content vocabulary hangman http://kids.nationalgeographic.com/ National Geographic online http://www.bbc.co.uk/schools/scienceclips/ages/10_11/science_10_11.shtml Interactive science activities http://classroom.jc-schools.net/sci-units/plants-animals.htm#Interactive

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Alpha Public School
Science Curriculum Map

Standard: K-ESS2	**Content Topic:** Earth's Systems

Strand	Disciplinary Core Ideas / Essential Statement	Objective / Essential Question	Science & Engineering Practices / Skills & Lesson
K-ESS2-1	Weather is the combination of sunlight, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time. (ESS2.D)	Use and share observations of local weather to describe patterns over time How can I predict weather? How does weather affect climate? How can my family be prepared for severe weather?	use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions
K-ESS2-2	---plants and animals can change their environment (ESS2.E) ---things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (ESS3.C)	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs How can people make choices that reduce the impact on the environment? (Included with LS-1)	construct an argument with evidence to support a claim

Formative, Summative and Alternative Assessments	Benchmark Assessments	Core Instructional and Supplemental Materials (including various texts at each grade level)
Weather Observations What will I wear? Rain in a Bag Clouds Sky Conditions Sky Condition Labels Predicting Weather Flap Book	Assessment Rubric (pg 21) Assessment Rubric (pg 47) Assessment Rubric (pg 82)	Knowing Science-Unit 1-1 and 1-2 Knowing Science Literature Knowing Vocabulary Science Flashcards Mystery Science Holt: Science

Power Outage Safety My Ready Kit Family's Ready Kit Teacher created; guideline 1-3 questions Alternative Assessment: Performance Task / picture		

Technology	Crosscutting Concepts / Interdisciplinary Connections across grade levels and content areas (at least 1)
Video Mystery Science Weather Watching mysteries 1,3,4 Google Classroom- Internet Research Mystery Science Plant & Animal Secret mystery 4	---patterns in the natural world can be observed, used to describe phenomena, and used as evidence ----scientists look for patterns and order when making observations about the world ---systems in the natural and designed world have parts that work together **ELA/Literacy – RI.K.1** With prompting and support, ask and answer questions about key details in a text. (K-ESS2-2) W.K.1 Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book. (K-ESS2-2) W.K.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. (K-ESS2-2) W.K.7 Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (K-ESS2-1) **Mathematics – MP.2** Reason abstractly and quantitatively. (K-ESS2-1) MP.4 Model with mathematics. (K-ESS2-1) K.CC.A Know number names and the count sequence. (K-ESS2-1) K.MD.A.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. (K-ESS2-1) K.MD.B.3 Classify objects into given categories; count the number of objects in each category and sort the categories by count. (K-ESS2-1)

Differentiation (IEPs / 504s)	Differentiation (ELL)	Differentiation (G &T)
Dress up game Visual aids Sentence Frames Modeling Anchor charts Modify rubric Teacher directed grouping	Pre-teach vocabulary Non-linguistic cues Sentence frames Visual aids Manipulatives Graphic organizers Use of educational websites: www.khanacademy.org www.colorincolorado.org/	http://education.jlab.org/vocabhangman/ Science content vocabulary hangman http://kids.nationalgeographic.com/ National Geographic online http://www.bbc.co.uk/schools/scienceclips/ages/10_11/science_10_11.shtml Interactive science activities http://classroom.jc-schools.net/sci-units/plants-animals.htm#Interactive

21st Century Education	Career Education
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Science Curriculum Map

Standard: K-ESS3	**Content Topic:** Earth and Human Activity

Strand	Disciplinary Core Ideas / Essential Statement	Objective / Essential Question	Science & Engineering Practices / Skills & Lesson
K-ESS3-1	living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do (ESS3.A)	Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live What are the needs of plants and animals?	use a model to represent relationships in the natural world
K-ESS3-2	some kinds of severe weather are more likely than others in a given region. Weather scientists forecast severe weather so that the communities can prepare for and respond to these events (ESS3.B) --- asking questions, making observations, and gathering information are helpful in thinking about problems (ETS1.A)	Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather How can I predict weather? How does weather affect climate? How can my family be prepared for severe weather?	---ask questions based on observations to find more information about the designed world ---- read grade-appropriate texts and /or use media to obtain scientific information to describe patterns in the natural world
K-ESS3-3	---things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things (ESS3.c) --- designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people (ETS1.B)	Communicate solutions that will reduce the impact of climate change and humans on the land, water, air, and/or other living things in the local environment How can people make choices that reduce the impact on the environment? (Included with LS-1)	communicate solutions with others in oral and / or written forms using models and / or drawings that provide detail about scientific ideas

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Formative, Summative and Alternative Assessments	Benchmark Assessments	Core Instructional and Supplemental Materials (including various texts at each grade level)
See LS-1 Better Lessons- Awesome Animal Assessment- Follow Me Duuude! See ESS- 2-1 Better Lessons- What Weather Assessment? Teacher created; guideline 1-3 questions Alternative Assessment: Performance Task / picture	Assessment Rubric for Living and Nonliving (pg 48) Assessment Rubric for Basic Needs of Plants (pg 70) Assessment Rubric for Basic Needs of Animals (pg 115) Assessment Rubric for Basic Animal Needs (pg 143) Assessment Rubric (pg 21) Assessment Rubric (pg 47) Assessment Rubric (pg 82)	Knowing Science-Unit 2- Living Things Knowing Science Literature, Knowing Vocabulary Science Flashcards Better Lessons- What do Plants Need Part 1 Better Lessons- Bears Snore on- Learning about Hibernation Better Lessons- What do Plants Need- Part 2 Better Lessons- Give and Get- Crazy Compost Better Lessons- Factors of Weather Under Pressure Better Lessons- Wacky Weather- Olympic Track Star- Tracking Weather Better Lessons- Severe Weather- Tornadoes- Dorothy was Right! Better Lessons- Yuck Better Lessons- Make it Monumental Better Lessons- Where has all the Wood Gone? Mystery Science Holt: Science

Technology	Crosscutting Concepts / Interdisciplinary Connections across grade levels and content areas (at least 1)
Videos Scissors	systems in the natural and designed world have parts that work together ---events have causes that generate observable patterns

Mystery Science Plant & Animal Secrets mysteries 1,3,5,6 Mystery Science Plant & Animal Secret mystery 2 Mystery Science Weather Watching mystery 2 Mystery Science Plant & Animal Secret mystery 6	---people encounter questions about the natural world every day ---people depend on various technologies in their lives, human life would be very different without technology **ELA/Literacy – RI.K.1** With prompting and support, ask and answer questions about key details in a text. (K-ESS3-2) W.K.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. (K-ESS3-3) SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (K-ESS3-2) SL.K.5 Add drawings or other visual displays to descriptions as desired to provide additional detail. (K-ESS3-1) **Mathematics – MP.2** Reason abstractly and quantitatively. (K-ESS3-1) MP.4 Model with mathematics. (K-ESS3-1),(K-ESS3-2) K.CC Counting and Cardinality (K-ESS3-1),(K-ESS3-2)

Differentiation (IEPs / 504s)	Differentiation (ELL)	Differentiation (G &T)
Visual aids Sentence Frames Modeling Anchor charts Modify rubric Teacher directed grouping	Pre-teach vocabulary Non-linguistic cues Sentence frames Visual aids Manipulatives Graphic organizers Use of educational websites: www.khanacademy.org www.colorincolorado.org/	http://education.jlab.org/vocabhangman/ Science content vocabulary hangman http://kids.nationalgeographic.com/ National Geographic online http://www.bbc.co.uk/schools/scienceclips/ages/10_11/science_10_11.shtml Interactive science activities http://classroom.jc-schools.net/sci-units/plants-animals.htm#Interactive

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21st Century Education	Career Education
THEMES: Global Awareness Financial, Economic, Business and Entrepreneurial Literacy Civic Literacy Health Literacy SKILLS: Creativity and Innovation Critical Thinking and Problem Solving Communication and Collaboration Information Literacy Media Literacy ICT Literacy Life and Career Skills	Career Ready Practices describe the career-ready skills that all educators in all content areas should seek to develop in their students. They are practices that have been linked to increase college, career, and life success. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study. CRP1. Act as a responsible and contributing citizen and employee. CRP2. Apply appropriate academic and technical skills. 8 CRP3. Attend to personal health and financial well-being. CRP4. Communicate clearly and effectively and with reason. CRP5. Consider the environmental, social and economic impacts of decisions. CRP6. Demonstrate creativity and innovation. CRP7. Employ valid and reliable research strategies. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP9. Model integrity, ethical leadership and effective management. CRP10. Plan education and career paths aligned to personal goals. CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence.

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Science Curriculum Map

Standard: K-2 ETS1	**Content Topic:** Engineering Design

Strand	Disciplinary Core Ideas / Essential Statement	Objective / Essential Question	Science & Engineering Practices / Skills & Lesson
K-2-ETS1-1	--- a situation that people want to change or create can be approached as a problem to be solved through engineering (ETS1.A) ---ask questions, make observations, and gather information about a situation people want to change (e.g., climate change) to define a simple problem that can be solved through the development of a new or improved object or tool (ETS1.A) ---before beginning to design a solution, it is important to clearly understand the problem (ETS1.A)	ask questions, make observations, and gather information about a situation people want to change (e.g., climate change) to define a simple problem that can be solved through the development of a new or improved object or tool. How do we compare height and length? How do we measure weight and mass? How do we compare capacity? How do we use our senses to make observations?	---ask questions based on observations to find more information about the natural and / or designed world ---define a simple problem that can be solved through the development of a new or improved object or tool
K-2-ETS1-2	designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions, such as climate change, to other people (ETS1.B)	develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem What are the steps in the Design Engineering Process? How do I use the steps in the Design Engineering Process to solve a real-world problem?	develop a simple model based on evidence to represent a proposed object or tool
K-2-ETS1-3	because there is always more than one possible solution to a problem, it is useful to compare and test designs (ETS1.C)	analyze data from tests of two objects designed to solve the same problems to compare the strength and weaknesses of how each performs How can we analyze data to solve a problem?	analyze data from tests of an object or tool to determine if it works as intended

Formative, Summative and Alternative Assessments	Benchmark Assessments	Core Instructional and Supplemental Materials (including various texts at each grade level)
Measurement Senses Teacher created; guideline 1-3 questions Journal Poster illustrating the 5 steps of the Design Engineering Process Better Lessons-What do engineers do?- Part 1 Better Lessons-Those Darn Squirrels!-Using the engineering process Better Lessons-Build a Paper Tower Challenge Alternative Assessments: performance task / picture	Measurement Labs Senses Lab Measure and Test Recording Page	Knowing Science-Unit 2- Living Things Knowing Science Literature, Knowing Vocabulary Science Flashcards Better Lessons- It's all in the Details! Better Lessons- Safety in Science Better Lessons- Sorting Seeds Better Lessons- STEM Engineering Design Cycle Introduction Engineering Design Process Poster Mystery Science Holt: Science

Technology	Crosscutting Concepts / Interdisciplinary Connections across grade levels and content areas (at least 1)
Balance Meter Sticks Graduated Cylinders Mystery Science Weather Watching mystery 5 Mystery Science Force Olympics mysteries 5,6 Google Classroom- Internet Research	the shape and stability of structures of natural and designed objects are related to their function **ELA/Literacy – RI.2.1** Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. (K-2-ETS1-1) W.2.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. (K-2-ETS1-1),(K-2-ETS1-3) W.2.8 Recall information from experiences or gather information from provided sources to answer a question. (K-2-ETS1-1),(K-2-ETS1-3) SL.2.5 Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings. (K-2-ETS1-2)

	Mathematics – MP.2 Reason abstractly and quantitatively. (K-2-ETS1-1),(K-2-ETS1-3) MP.4 Model with mathematics. (K-2-ETS1-1),(K-2-ETS1-3) MP.5 Use appropriate tools strategically. (K-2-ETS1-1),(K-2-ETS1-3) 2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. (K-2-ETS1-1),(K-2-ETS1-3)

Differentiation (IEPs / 504s)	Differentiation (ELL)	Differentiation (G &T)
Visual aids Sentence Frames Modeling Anchor charts Modify rubric Teacher directed grouping	Pre-teach vocabulary Non-linguistic cues Sentence frames Visual aids Manipulatives Graphic organizers Use of educational websites: www.khanacademy.org www.colorincolorado.org/	http://education.jlab.org/vocabhangman/ Science content vocabulary hangman http://kids.nationalgeographic.com/ National Geographic online http://www.bbc.co.uk/schools/scienceclips/ages/10_11/science_10_11.shtml Interactive science activities http://classroom.jc-schools.net/sci-units/plants-animals.htm#Interactive

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