GR04 Standards Resource Sheet



Literacy Standards Progress	Skills and Resources
Key Ideas and Details (R.4.1, R.4.2, R.4.3)	Using evidence to prove a point: When students are reading at home, ask them questions about the book they're reading. When they give you an answer, encourage them to share evidence by asking: What's your evidence? What in the text makes you think that? Understanding the plot of a fiction text: When students are reading at home, prompt them to retell a chapter or section that they just read. Listen for mentions of a problem, attempts to resolve the problem, and potentially a solution. Ask your student about a lesson they learned recently in a book or short story from school Getting to know characters in a fiction text: Ask your student to tell you about a character that they've learned about in school. When students are reading at home, ask them what big ideas they just learned about a character in that story. You can use the following questions to prompt your student to share more information about a character: What's the character's major problem? What's the character doing to try to make their problem better? What's the character like? Describe their personality. Would you want to be friends with this character? Why or why not? Who are the other important characters in the story? What is this character's relationship to them? Ask your student to describe the relationships that the main character has with other characters in the text. Ask them how these relationships impact what's happening in the story Determining the main idea of a nonfiction text: When students are reading at home, ask them questions that will allow them to demonstrate understanding of the text by asking: What's this text mostly about? What's the author's point of view on this topic? What's the author's point of view on this topic? What's the author's point of view on this topic?
Craft and Structure (R.4.4, R.4.5, R.4.6)	 When your student is stuck on a word, encourage them to use clues in the text (such as other words in the sentence or ideas from that paragraph) to help figure it out Consider keeping a running list of vocabulary words that students can add to at home as they're reading Text features: A text feature is component of a non-fiction text that is not the main body of text. Some examples include: table of contents, headings, photographs, captions, and maps. Ask your student to explain text features to you when they come across them. Ask them why they think the author included the text feature Ask them what in the text the text feature helps them better understand

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Math Standards Progress	Skills and Resources
Operations and Algebraic Thinking (4.OA)	 Practice and review multiplication and division math facts Discuss mathematical patterns, such as 5 x 9, 5 x 90, 50 x 90, 50 x 900, etc. Find the factors and multiples of different numbers Resources and videos: https://goo.gl/gRZXtl and https://goo.gl/8U4TOv
Number and Operations in Base Ten (4.NBT)	 When given a large, multi-digit number, ask your student what each digit represents. (e.g. "What does the 4 signify in the number 34,500?" Answer: 4,000) Practice the area model of multiplication and division Continue to talk about place value patterns with your student, e.g. how many 10s in 100? Resources and videos can be found here: https://goo.gl/AwhGYE
Number and Operations- Fractions (4.NF)	 Look for opportunities in daily life to discuss fractions and divide objects into equal parts. In any decimal number, ask your student the value of each digit, e.g., the 4 in 5.4 is 4 tenths. Resources and videos can be found here: https://goo.gl/QOhslP
Measurement and Data (4.MD)	 If you have metric measurement tools at home, encourage your student to measure objects around the house As often as possible, notice and discuss customary units like ounces and pounds with your student (in the grocery store, at home, etc.) Resources and videos can be found here: https://goo.gl/VyZVDS
Geometry (4.G)	 Practice adding to make 90, 180, 270 and 360, as well as subtracting from those numbers. This will be useful when students are solving problems like the missing angle one above. Ask your student about the attributes of basic shapes that you encounter (how many sides, how many right/acute/obtuse angles, are the sides the same length, are they parallel, etc.) Resources and videos can be found here: https://goo.gl/wYchlB



Science Standards Progress	Skills and Resources
Earth Science (4-ESS1-1, 4- ESS2-1, 4- ESS2-2, 4- ESS3-1, 4- ESS3-2)	 Earth's Place in the Universe; Earth's Systems; Earth and Human Activitiy Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time. Examples of evidence from patterns could include rock layers with marine shell fossils above rock layers with plant fossils and no shells, indicating a change from land to water over time; and, a canyon with different rock layers in the walls and a river in the bottom, indicating that over time a river cut through the rock Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation. Examples of variables to test could include angle of slope in the downhill movement of water, amount of vegetation, speed of wind, relative rate of deposition, cycles of freezing and thawing of water, cycles of heating and cooling, and volume of water flow. Analyze and interpret data from maps to describe patterns of Earth's features. Maps can include topographic maps of Earth's land and ocean floor, as well as maps of the locations of mountains, continental boundaries, volcanoes, and earthquakes. Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment. Examples of renewable energy resources could include wind energy, water behind dams, and sunlight; non-renewable energy resources are fossil fuels and fissile materials. Examples of environmental effects could include loss of habitat due to dams, loss of habitat due to surface mining, and air pollution from burning of fossil fuels. Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans. Examples of solutions could include designing an earthquake resistant building and improving monitoring of volcanic activity.
Physical Science (4-PS3-1, 4- PS3-2, 4- PS3-3, 4- PS3-4)	 Use evidence to construct an explanation relating the speed of an object to the energy of that object Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents. Ask questions and predict outcomes about the changes in energy that occur when objects collide. Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. Examples of devices could include electric circuits that convert electrical energy into motion energy of a vehicle, light, or sound; and, a passive solar heater that converts light into heat. Examples of constraints could include the materials, cost, or time to design the device.
Life Science (4-LS1-1, 4- LS1-2)	 Structures and Processes: From Molecules to Organisms Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. 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. Consider visiting the Brooklyn Botanic Gardens. Find different examples seeds and discuss how they have been moved. Discuss how different plant structures have adapted to help them survive. Consider purchasing or borrowing the following books from your local library: Food Chain Frenzy by Anne Capeci, Hungry Plants by Mary Batten, Next Time You See a Maple Seed by Emily Morgan, Animal Adaptation and Survival by Richard Spilsbury
Science and Engineering Practices (3-5ETS1-1, 3-5ETS1-2, 3-5ETS1-3)	 Engineering Design Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 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. 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.