

CURRICULUM MAP

Science: Grade 5

SECOND QUARTER

Performance Expectations	Disciplinary Core Ideas	Science and Engineering Practices	Crosscutting Concepts
<ul style="list-style-type: none"> ● 5-PS1-1: Develop a model to describe that matter is made of particles too small to be seen. ● 5-PS1-2: Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. ● 5-PS1-3: Make observations and measurements to identify materials based on their properties. ● 5-PS1-4: Conduct an investigation to determine whether the mixing of two or more substances results in new substances. ● 5-LS1-1: Support an argument that plants get the materials they need for growth chiefly from air and water. 	<p>ETS1.A: Defining and Delimiting Engineering Problems</p> <ul style="list-style-type: none"> ● Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. (3-5-ETS1-1) <p>ETS1.B: Developing Possible Solutions</p> <ul style="list-style-type: none"> ● Research on a problem should be carried out before beginning to design a solution. Testing a solution involves investigating how well it performs under a range of likely conditions. (3-5-ETS1-2) ● At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs. (3-5-ETS1-2) ● Tests are often designed to identify failure points or difficulties, which suggest the elements of the design that need to be improved. (3-5-ETS1-3) <p>ETS1.C: Optimizing the Design Solution</p> <ul style="list-style-type: none"> ● Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints. (3-5-ETS1-3) <p>ESS2.A: Earth Materials and Systems</p> <ul style="list-style-type: none"> ● Earth's major systems are the geosphere (solid and molten rock, soil, and sediments), the hydrosphere (water and ice), the atmosphere (air), and the biosphere (living things, including humans). These systems interact in multiple ways to affect Earth's surface materials and processes. The ocean supports a variety of ecosystems and organisms, shapes landforms, and influences climate. Winds and clouds in the atmosphere interact with the landforms to determine patterns of weather. <p>ESS2.C: The Roles of Water in Earth's Surface Processes</p> <ul style="list-style-type: none"> ● Nearly all of Earth's available water is in the ocean. Most freshwater is in glaciers or underground; only a tiny fraction is in streams, lakes, wetlands, and the atmosphere. <p>ESS3.C: Human Impacts on Earth Systems</p>	<p>Focal:</p> <ul style="list-style-type: none"> ● Defining problems ● Developing and using models ● Analyzing and interpreting data ● Constructing explanations ● Designing solutions ● Obtaining, evaluating, and communicating information <p>Supporting:</p> <ul style="list-style-type: none"> ● Using mathematics and computational thinking 	<p>Focal:</p> <ul style="list-style-type: none"> ● Cause and effect ● Systems and system models ● Scale, proportion and quantity <p>Supporting:</p> <ul style="list-style-type: none"> ● Structure and function ● Stability and change

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| | <ul style="list-style-type: none">• Human activities in agriculture, industry, and everyday life have major effects on land, vegetation, streams, oceans, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments. | | |
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