

5th Grade

Unit 3: Earth’s Systems:Hydrosphere, geosphere, atmosphere

Duration: 4-8 weeks

| Desired Results | | |
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| <p>Performance Expectations:</p> <p>5-ESS2-1 Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.</p> <p>5-ESS2-1MI Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact in Michigan and the Great Lakes basin</p> <p>5-ESS2-2 Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.</p> <p>5-ESS2-2MI Describe and graph the amounts and percentages of water and fresh water in the Great Lakes to provide the evidence about the distribution of water on Earth.</p> <p>5-ESS3-1 Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.</p> | <i>Transfer</i> | |
| | <p><i>Meaning</i></p> <p>ENDURING UNDERSTANDINGS: Crosscutting Concepts</p> <p><i>Students will understand that...</i></p> <ul style="list-style-type: none"> ● A system can be described in terms of its components and their interactions. ● Standard units are used to measure and describe physical quantities such as weight and volume. ● A system can be described in terms of its components and their interactions. ● Science findings are limited to questions that can be answered with empirical evidence. | |
| | <i>Meaning</i> | |
| | <table border="1" style="width: 100%;"> <tr> <td style="vertical-align: top;"> <p><i>Acquisition</i></p> <p>Disciplinary Core Ideas</p> <p><i>Students will know...</i></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 </td> <td style="vertical-align: top;"> <p>Science and Engineering Practices</p> <p><i>Students will be skilled at...</i></p> <ol style="list-style-type: none"> 1. Develop a model using an example to describe a scientific principle. 2. Describe and graph quantities such as area and volume to address scientific questions. 3. Obtain and combine information from books and/or other reliable media to explain phenomena or solutions to a design problem. </td> </tr> </table> | <p><i>Acquisition</i></p> <p>Disciplinary Core Ideas</p> <p><i>Students will know...</i></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 |
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| | <p>atmosphere interact with the landforms to determine patterns of weather.</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.● Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments. | |
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| Evidence | | |
| Evaluation Criteria | Assessment Evidence | |
| | PERFORMANCE TASK(S): | |
| | OTHER EVIDENCE: McMillan McGraw-Hill Science, Gizmos, Mobymax | |
| | Unit assessment | |
| Learning Plan | | |
| <i>Summary of Key Learning Events and Instruction</i> | | |