EPSD Curriculum and HMH SCIENCE DIMENSIONS 2018 Alignment TEMPLATE

GRADE 5

EPSD Unit 4: Water on Earth (part II)
Third Marking Period

<table>
<tr><td colspan="2">Overview: In this unit of study, students describe and graph data to provide evidence about the distribution of water on Earth. The crosscutting concepts of scale, proportion, quantity, cause and effect, systems and systems models are called out as organizing concepts for these disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in using mathematics and computational thinking and in obtaining, evaluating, and communicating information. Students are also expected to use these practices to demonstrate understanding of the core ideas. This unit is based on 5-ESS2-2 and 5-ESS3-1.</td><td colspan="2">HMH Science Dimensions Program Resources</td></tr>
<tr><td colspan="2">Standards: (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. (5-ESS3-1) Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.</td><td colspan="2">Unit 7: Earth and Human Activities
Unit Video (sky view of structures that inhabit the earth); Unit Overview p. 443; Vocabulary p. 445; Making Connections 445H; Unit Project p. 445I; Unit Performance Task pp. 496-497; Unit Review pp. 498-500</td></tr>
<tr><td colspan="2">Instructional Days: 15</td><td colspan="2">Standard for all Units: Interactive Glossary (D); Leveled Readers (D); Beginning-of-Year Test (D/P); Unit Pretest; (D) Lesson Quizzes (D/P); Unit Test (D/P)

Note: Refer to the Curriculum Alignment Common Language (CACL) Guide to decipher acronyms.</td></tr>
<tr><td colspan="2"></td><td>Lesson 1: How Does Resource Use Affect Earth? pp. 446-467

D/P- CYEI (video) Landsat satellite images p. 447

P- ENB (prompt) What are some ways that growing populations affect Earth’s resources? p. 447
D/P- Human Activities and Earth’s Systems: Earth’s Spheres (Student explore the diagram online to learn more about Earth’s systems.) p. 449</td><td>Lesson 2: How Can People Protect the Environment? pp. 468-495

D/P- CYEI (digital picture) A “green” city p. 469
P- ENB (prompt) What are some of the ways this city is helping the environment? p. 469
D/P- Back to Basics (Students explore online to discover more about the materials we use in everyday life.) p. 470
D/P- ENGIT Reusing at Home (Students take a walk around their house and</td></tr>
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Objective 1: Students will identify sources of fresh water available for consumption and understand the need for water conservation due to the limited fresh water supply at home and in the community. **Objective 2:** Students will identify the percentage of fresh water on earth that is available for human use and the distribution of different types around the globe. **Objective 3:** Students will make a graph to show the distribution of water on Earth and write about their observations. **Objective 4:** Students will explain the steps humans can take to protect the environment from water pollution.	D/P- Human Impact (Students watch videos to discover more about how humans can impact Earth's spheres. p. 450 D/P- ENGIT Oil Spills: Current Oil Spill Technology (Students study pictures to discover more about the Deepwater Horizon oil spill.) p. 450 D- ENGIT Find Other Solutions (Students research different methods that have been used to clean oil spills.) D/P- AWYK HO Activity Protecting Our Earth Research Project (Students create a brochure to show how one of Earth's systems is affected by human activities.) p. 451 P- ENB (prompt) Students gather evidence of how the Deepwater Horizon oil spill affected wildlife population in the Gulf of Mexico. p. 451 P- LS Main Idea and Details (Students use science words to write the correct answer for each sentence.) p. 451 D/P- Growing, Growing (Students explore online to view change over time in the Amazon rain forest.) p. 453 D/P- DTM Calculate Energy Units (Student read and answer questions.) p. 454 D/P- The Amazon (Students watch video to discover more about how the Amazon has changed over time.) p. 456 D/P- ENGIT Space Junk (Students study pictures to discover more about how	identify different items and materials that are reusable.) p. 474 D/P- The process of Recycling Paper (Students explore online to discover more about the paper recycling process.) p. 475 D/P- DTM Saving Trees (Students identify the correct number of trees and kilowatts of energy saved when recycling paper.) p. 476 D/P- AWYK HO Activity Recyclables in the Room (Students make a list of each recyclable item they located in the classroom and discuss items; students identify how each item can be reused and how reusing the item can help the environment.) p. 477 P- ENB (prompt) Students gather evidence that explain how people who reduce, reuse, and recycle are helping to protect the environment. p. 479 D/P- LS Informative Paragraph (Students choose the correct words to complete each sentence.) p. 479 D/P- Innovative Green Technologies (Students examine pictures and watch videos to discover more about how people are using different technologies to go "green.") p. 480 D/P- LS Students think about alternatives to using just paper and plastic bags and identify options and the advantages and disadvantages, and how the alternatives help protect the environment. p. 481
Topics: Water on Earth Twenty-First Century Themes and Skills include: The Four C's • Environmental Literacy • Global Awareness		
Essential Questions: Where is water found on the Earth? What percentage of the Earth's water is fresh water? How do individual communities use science ideas to protect Earth's resources and environment?		

	engineers and scientists might solve the problem of space junk!) p. 456 D/P- AWYK HO Activity Cleaning Up Space Debris (In a group, students research pictures of space debris and draw a diagram of an invention that could clean up the debris; students explain how the invention works.) p. 457 D/P- LS Student paraphrase the information that they learned about overpackaging. p. 459 P- ENB (prompt) Students research evidence that might explain some of the benefits and drawbacks of urbanization. p. 459 D/P- HO Activity A Solution for All This Pollution (Students collaborate with peers to design their own method for filtering dirty water and watch video to find out more about how sewage treatment plants filter and clean our waste water.) pp. 460-462 D/P- TIF (enrich) Careers in Science and Engineering: Marine Biologist and Ecologist pp. 463-464 D- Sustainable Forest; Overfishing D/P- Lesson Self Check pp. 465-466 D/P- Lesson Roundup p. 467 D- Lesson Quiz P- DI (ELL/RTI) p. 445G	D/P- AWYK HO Activity Rethinking Your Room (Students draw a diagram of their favorite room in the house and label all the ways they help conserve energy and make the room more environmentally friendly; students label each of the electric devices in the room and identify whether it uses renewable or nonrenewable energy) p. 483 P- ENB (prompt) Students gather evidence about more green technologies and green cities and how they are helping the environment. p. 485 D/P- HO Activity Pocket Park (Students collaborate with peers and conduct research to learn how pocket parks can help the environment.) pp. 486-490 D/P- TIF (enrich) People in Science and Engineering: Boyan Slant pp. 491-492 D- Landfills: How Long Until It's Gone; Can All Plastic Be Recycled? D/P- Lesson Self Check pp. 493-494 D/P- Lesson Roundup p. 495 D- Lesson Quiz P- DI (ELL/RTI) p. 445G P- Extension p. 445G P- COLLAB p. 445H P- Connections to Science p. 445H D- Science Safety HB

	P- Extension p. 445G P- COLLAB p. 445H P- Connections to Science p. 445H D- Science Safety HB D- CCC-HB D- ELA-HB D- Math-HB D- SEP-HB D- ScienceSaurus Reference HB	D- CCC-HB D- ELA-HB D- Math-HB D- SEP-HB D- ScienceSaurus Reference HB D- YSI Simulation Build a Green City

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Curriculum Alignment Common Language (CACL) Guide K-5		
Acronym	**Word/Phrase**	**Description**
AWYK	Apply What You Know	Hands on opportunities for students to apply learning.
CER	Claims Evidence Reasoning	Students make a claim and gather evidence along the way (during EXPLORATORY activities) to support claim.
CYEI	Can You Explain It	Lesson phenomenon used to ENGAGE students in learning at the beginning of the lesson.
CYSI	Can You Solve It	Lesson phenomenon used to ENGAGE students in learning at the beginning of the lesson.
D	Digital	Program resources and features in interactive digital form.
DI (ELL/RTI) **Extension** **COLLAB** **Connections to Science**	Differentiated Instruction (English Language Learner/Response to Intervention) Collaboration Connections to Science	A page that lists all learning activities used to differentiate learning, engage students in collaborative activities and connect learning to other subjects.
DTM	Do the Math	Integrated subject learning.

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ENB	Evidence Notebook (prompt)	Student notebook or journal used to gather evidence during EXPLORATORY learning activities to support their claims.
ENGIT	Engineer It	Integrated subject learning.
HB **CCC-HB** **ELA-HB** **M-HB** **SEP-HB**	Handbooks Crosscutting Concepts English Language Arts Math Science and Engineering Practices	Students who need extra support in grasping concepts or to refresh student knowledge of skills.
HO	Hands-On (Activity)	Student collaboration activities.
LS	Language Smarts	Integrated subject learning.
P	Print	Program resources and features in print form.
TIF	Take It Further (enrich)	Enrichment activities for students in print or digital.
YSI	You Solve It (Simulation)	Open-ended simulation-based learning with multiple answer options.