Mini-Map for SCI.EE.5.ESS.Earth-2

Subject: Science
Earth and Space Science (ESS)
Grade band: 3–5

Grade-Level Expectation

DLM Essential Element	DLM Disciplinary Core Idea Family[1]	Framework Disciplinary Core Ideas
SCI.EE.5.ESS.Earth-2 Use information to describe that water is found in different forms almost everywhere on Earth.	Earth and Space Science – Earth Systems	ESS2.A: Earth Materials and Systems ESS2.C: The Roles of Water in Earth's Surface Processes ESS3.C: Human Impacts on Earth Systems

[1] DLM Science Essential Elements organize Disciplinary Core Ideas (defined in the *Framework for K-12 Science Education*) into DCI families. By combining similar concepts within a domain, science content from the general education standards is reduced in depth, breadth, and complexity to provide access for students that qualify for the DLM alternate assessment.

Linkage Level Descriptions

Initial Precursor	Distal Precursor	Proximal Precursor	Target[2]
Identify familiar people, objects, places, or events and whether objects are similar or different, based on their physical characteristics.	Use information to identify Earth's surface as both land (i.e., the ground that people stand on) and different forms of water (i.e., liquid water and solid ice).	Use information to compare different bodies of water in different locations on Earth's surface.	Use information to describe that different forms of water (i.e., solid, liquid, and gas) are found almost everywhere on Earth (i.e., on its surface and in its atmosphere).

[2] The target linkage level description is a measurement target that describes the expectations (content and performance) of the Essential Element for assessment purposes.

Essential Element Three Dimensions

Each Essential Element is defined in the three dimensions described in the *Framework for K-12 Science Education*: disciplinary core ideas (DCIs), science and engineering practices (SEPs), and crosscutting concepts (CCCs). The table below lists the details of each dimension from the individual DLM Essential Element descriptions, with color-coding of dimensions corresponding to the Next Generation Science Standards (NGSS). The first row (in blue) lists the SEP(s) used to construct the Essential Element and describes ways each SEP could be incorporated. The second row (in orange) describes the science concepts within the DCI family related to this Essential Element. The third row (in green) lists the CCC(s) associated with the Essential Element and explains how each might be incorporated in the grade band (quoted from NSTA, 2013, matrix of CCCs). Note that the SEP is presented first here (rather than second, as it is in the full list of Essential Elements) to reflect the emphasis on practices in instruction and across the linkage levels. The final row (in white) includes examples of how the three dimensions could work together to support instruction for the Essential Element. These examples provide ideas for integrating the dimensions and are not exhaustive, nor are they intended to limit instruction.

Science and Engineering Practices	**Obtaining, Evaluating, and Communicating Information:** Obtaining, evaluating, and communicating information in grades 3–5 builds on K–2 experiences and progresses to describing scientific ideas. • Use observations, images, simple texts, and other media to understand problems and determine how the natural world works. • Use information (e.g., observations, images, graphs, maps) to answer questions and support scientific ideas.
Disciplinary Core Ideas	**Earth Systems** • Depending on temperature, water exists in different states: solid, liquid, or gas. • Water is found almost everywhere on Earth. o It is found as water vapor (gas) in the air. o It is found in the clouds as tiny water droplets (liquid). o It is found in the sky and as rain (liquid), ice (solid), or snow (solid) falling from clouds. o It is found as ice, snow, and standing water on Earth's surface. o It is found in bodies of water on Earth's surface (e.g., lakes, streams, oceans). o It is found as running water on land.

Crosscutting Concepts	**Energy and Matter: Flows, Cycles, and Conservation**: Tracking energy and matter flows into, out of, and within systems helps one understand their system's behavior. • Matter is made of particles. • Matter flows and cycles can be tracked in terms of the weight of the substances before and after a process occurs. The total weight of the substances does not change. This is what is meant by conservation of matter. Matter is transported into, out of, and within systems. • Energy can be transferred in various ways and between objects.
How three dimensions support instruction for this Essential Element	Students can use information to recognize that water (in various states of matter) can be found in many locations on Earth. Students can also learn how the same water is transported from place to place on Earth over time (for example, that water flows from clouds in the atmosphere to the surface of Earth).

Instructional Resources

Resources
Learning modules and additional science instructional resources can be found at https://www.dlmpd.com/science/
A glossary defining key science terms found in the Essential Elements can be found at DLM Glossary for Science Learning Maps.

Link to Text-Only Map

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