




Component Idea	Scope	Performance Expectation (PE)	Disciplinary Core Idea (DCI)	Science and Engineering Practice(s) (SEP)	Crosscutting Concepts (CCC)
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 <b>ESS1 Earth's Place in the Universe</b>					
Earth and the Solar System	<b>Kepler's Laws</b>	HS-ESS1-4	ESS1.B	Using Mathematics and Computational Thinking	Scale, Proportion, and Quantity
The History of Planet Earth	<b>Earth's Early History</b>	HS-ESS1-6	ESS1.C	Constructing Explanations and Designing Solutions	Stability and Change
The Universe and Its Stars	<b>The Sun</b>	HS-ESS1-1	ESS1.A	Developing and Using Models	Scale, Proportion, and Quantity
	<b>The Stars</b>	HS-ESS1-2   HS-ESS1-3	ESS1.A	Constructing Explanations and Designing Solutions   Obtaining, Evaluating, and Communicating Information	Energy and Matter
	<b>The Big Bang Theory</b>	HS-ESS1-2	ESS1.A	Constructing Explanations and Designing Solutions   Obtaining, Evaluating, and Communicating Information	Energy and Matter
	<b>The Formation of Elements</b>	HS-ESS1-3	ESS1.A	Obtaining, Evaluating, and Communicating Information	Energy and Matter
The History of Planet Earth	<b>Earth's Formation</b>	HS-ESS1-5	ESS1.C	Engaging in Arguments from Evidence	Patterns

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 <b>ESS2 Earth's Systems</b>					
Earth Materials and Systems:	<b>Earth's Feedback Systems</b>	HS-ESS2-1   HS-ESS2-2	ESS2.A	Developing and Using Models   Analyzing and Interpreting Data	Stability and Change
	<b>Modeling Earth's Interior</b>	HS-ESS2-3	ESS2.A	Developing and Using Models	Energy and Matter
	<b>Changes in Climate</b>	HS-ESS2-4	ESS2.A	Developing and Using Models	Cause and Effect
Plate Tectonics and Large-Scale System Interactions	<b>Plate Tectonics and Earth's Features</b>	HS-ESS2-3   HS-ESS2-1	ESS2.B	Developing and Using Models	Energy and Matter   Stability and Change
The Role of Water in Earth's Surface Processes	<b>Properties of Water</b>	HS-ESS2-5	ESS2.C	Planning and Carrying Out Investigations	Structure and Function
Biogeology	<b>Earth's Surface and Life</b>	HS-ESS2-7	ESS2.E	Engaging in Arguments from Evidence	Stability and Change
Weather and Climate	<b>Foundations of Earth's Global Climate</b>	HS-ESS2-2   HS-ESS2-4	ESS2.D	Analyzing and Interpreting Data	Stability and Change   Cause and Effect
	<b>Rising Carbon Dioxide Concentrations</b>	HS-ESS2-4   HS-ESS2-6	ESS2.D	Developing and Using Models	Cause and Effect   Energy and Matter
	<b>Biogeochemical Cycles</b>	HS-ESS2-6   HS-ESS2-7	ESS2.D	Developing and Using Models   Engaging in Argument from Evidence	Energy and Matter   Stability and Change

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 <b>ESS3 Earth and Human Activity</b>					
Natural Resources	<b>Human Activity and Natural Resources</b>	HS-ESS3-1	ESS3.A	Constructing Explanations and Designing Solutions	Cause and Effect
	<b>Energy and Mineral Resources</b>	HS-ESS3-2	ESS3.A	Engaging in Argument from Evidence	none
Natural Hazards	<b>Natural Hazards</b>	HS-ESS3-1	ESS3.B	Constructing Explanations and Designing Solutions	Cause and Effect
Human Impacts on Earth Systems	<b>Responsible Management of Natural Resources</b>	HS-ESS3-3	ESS3.C	Using Mathematics and Computational Thinking	Stability and Change
	<b>Human Activities and Natural Systems</b>	HS-ESS3-4	ESS3.C	Constructing Explanations and Designing Solutions	Stability and Change
Global Climate Change	<b>Global and Regional Climate Change</b>	HS-ESS3-5	ESS3.D	Analyzing and Interpreting Data	Stability and Change
	<b>Ocean, Atmosphere and Biosphere Interactions</b>	HS-ESS3-6	ESS3.D	Using Mathematics and Computational Thinking	Systems and System Models