

*Virtual Field Trips at the Pacific Science Center help support the following Next Generation Science Standards. Please let your instructor know if there is a particular concept or practice listed that you would like emphasized.*

| <b>Program Title</b>                     | <b>Disciplinary Core Idea</b>                               | <b>Science and Engineering Practices</b>            | <b>Cross-Cutting Concepts</b> |
|------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------|-------------------------------|
| <b>Animal Adventures (PreK-2nd)</b>      | LS1.A Structure and Function                                | Developing and Using Models                         | Patterns                      |
|                                          | LS4.C Adaptation                                            | Engaging in Arguments from Evidence                 | Structure and Function        |
|                                          | LS4.D Biodiversity and Humans                               |                                                     |                               |
|                                          | ESS3.A Natural Resources                                    |                                                     |                               |
| <b>Wetland Wonderers (PreK-2nd)</b>      | LS1.A Structure and Function                                | Developing and Using Models                         | Patterns                      |
|                                          | LS1.B Growth and Development of Organisms                   | Constructing Explanations and Designing Solutions   | Structure and Function        |
|                                          | LS1.C: Organization for Matter and Energy Flow in Organisms | Asking Questions and Defining Problems              | Systems and System Models     |
|                                          | LS2.A: Interdependent Relationships in Ecosystems           | Obtaining, Evaluating and Communicating information |                               |
|                                          | ESS3.A: Natural Resources                                   |                                                     |                               |
|                                          | ESS3.C: Human Impacts on Earth Systems                      |                                                     |                               |
| <b>Ecosystem Investigators (3rd-8th)</b> | LS1.A: Structure and Function                               | Developing and Using Models                         | Patterns                      |
|                                          | LS1.B Growth and Development of Organisms                   | Constructing Explanations and Designing Solutions   | Cause and Effect              |
|                                          | LS1.C: Organization for Matter and Energy Flow in Organisms | Asking Questions and Defining Problems              | Energy and Matter             |
|                                          | LS2.A: Interdependent Relationships in Ecosystems           | Obtaining, Evaluating and Communicating information | Structure and Function        |
|                                          | LS2.B: Cycles of Matter and Energy Transfer in Ecosystems   |                                                     | Stability and Change          |
|                                          | LS2.C: Ecosystem Dynamics, Functioning, and Resilience      |                                                     |                               |
|                                          | LS4.C: Adaptation                                           |                                                     |                               |
|                                          | ESS3.C: Human Impacts on Earth Systems                      |                                                     |                               |

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| <b>Featured Creatures (3rd-8th)</b>         | LS1.A: Structure and Function<br>LS4.A: Evidence of Common Ancestry and Diversity<br>LS4.C: Adaptation<br>LS4.D: Biodiversity and Humans                                                                                                                                                              | Developing and Using Models<br>Obtaining, Evaluating, and Communicating Information<br>Analyzing and Interpreting Data                                                                                                                          | Structure and Function<br>Patterns                                                                |
| <b>Night Sky Tonight (PreK-12th)</b>        | ESS1.A: The Universe and Its Stars<br>ESS1.B: Earth and the Solar System                                                                                                                                                                                                                              | Developing and Using Models<br>Engaging in Arguments from Evidence<br>Obtaining, Evaluating, and Communicating information                                                                                                                      | Systems and System Models<br>Patterns                                                             |
| <b>Planetary Geology (K-12th)</b>           | ESS1.B: Earth and the Solar System<br>ESS1.C: The History of Planet Earth<br>ESS2.A: Earth Materials and Systems<br>ESS2.B: Plate Tectonics and Large-Scale System Interactions<br>ESS2.C: The Roles of Water in Earth’s Surface Processes                                                            | Asking questions<br>Developing and Using Models<br>Analyzing and Interpreting Data<br>Constructing Explanations                                                                                                                                 | Patterns<br>Systems and System Models<br>Structure and Function<br>Stability and Change           |
| <b>Robots on Mars (3<sup>rd</sup>-12th)</b> | PS1.A: Structure and Properties of Matter<br>PS4.C: Information Technologies and Instrumentation<br>ETS1.A: Defining and Delimiting an Engineering Problem<br>ETS1.B: Developing Possible Solutions<br>ESS1.C: The History of Planet Earth<br>ESS2.C: The Roles of Water in Earth’s Surface Processes | Asking Questions<br>Planning and Carrying out Investigations<br>Analyzing and Interpreting Data<br>Constructions Explanations, Designing solution<br>Engaging in argument from Evidence<br>Obtaining, Evaluating, and Communicating information | Patterns<br>Scape Proportion and Quantity<br>Systems and Systems Models<br>Structure and Function |

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| <b>Piece of Mind<br/>(3rd-8th)</b>     | LS1.A: Structure and Function<br><br>LS1.D: Information Processing                                                                                                                                                                                                 | Asking Questions<br><br>Developing and Using Models<br><br>Obtaining, Evaluating, and Communicating Information                                 | Patterns<br><br>Systems and Systems Models<br><br>Structure and Function                                                 |
| <b>Radical Reactions<br/>(K-8th)</b>   | PS1.A: Structure and Properties of Matter<br><br>PS1.B: Chemical Reactions<br><br>PS3.D: Energy in Chemical Processes and Everyday Life                                                                                                                            | Asking Questions<br><br>Constructing Explanations<br><br>Engaging in Argument from Evidence                                                     | Patterns<br><br>Cause and Effect<br><br>Scale, Proportion and Quantity<br><br>Energy and Matter                          |
| <b>Global Soundscapes<br/>(K-12th)</b> | LS2.A: Interdependent Relationships in Ecosystems<br><br>LS2.C: Ecosystem Dynamics, Functioning, and Resilience<br><br>LS4.D: Biodiversity and Humans<br><br>ESS3.A: Natural Resources<br><br>ESS3.C: Human Impacts on Earth Systems<br><br>PS4.A: Wave Properties | Asking Questions<br><br>Developing and Using Models<br><br>Analyzing and Interpreting Data                                                      | Patterns<br><br>Cause and Effect<br><br>Energy and Matter<br><br>Systems and Models                                      |
| <b>Stick the Landing<br/>(3rd-8th)</b> | ETS1.A: Defining and Delimiting an Engineering Problem<br><br>ETS1.B: Developing Possible Solutions<br><br>ETS1.C: Optimizing the Design Solution<br><br>PS2.A: Forces and Motion<br><br>PS2.B: Types of Interactions                                              | Asking Questions and Defining Problems<br><br>Planning and Carrying out investigations<br><br>Constructing Explanations and Designing Solutions | Patterns<br><br>Cause and Effect<br><br>Systems and System Models<br><br>Energy and Matter<br><br>Structure and Function |

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| <b>Forces of Energy (3rd-8th)</b> | <p>PS2.A: Forces and Motion</p> <p>PS2.B: Types of Interactions</p> <p>PS2.C: Stability and Instability in Physical Systems</p> <p>PS3.A: Definitions of Energy</p> <p>PS3.B: Conservation of Energy and Energy Transfer</p> <p>PS3.C Relationships Between Energy and Forces</p> | <p>Asking Questions</p> <p>Engaging in Argument from Evidence</p> <p>Obtaining, Evaluating, and Communicating Information</p> <p>Planning and Carrying out Investigations</p> <p>Analyzing and Interpreting Data</p> <p>Developing and Using Models</p> | <p>Scale Proportion and Quantity</p> <p>Systems and System Models</p> <p>Cause and Effect</p> <p>Energy and Matter</p> <p>Interdependence of Science, Engineering, and Technology</p> |
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