Activity 1: Framework of LSS for Science

As a group, discuss each component of the standards.

| Coding and Descriptor: | | |
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| Performance Expectation: | | |
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| Clarification Statement: | | |
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| Science and Engineering Practices: | Disciplinary Core Ideas: | Crosscutting Concepts: |
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| Science and Engineering Practice |
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Science and Engineering Practices

- 1. Asking questions and defining problems
- 2. Developing and using models
- 3. Planning and carrying out investigations
- 4. Analyzing and interpreting data
- 5. Using mathematics and computational thinking
- 6. Constructing explanations and designing solutions
- 7. Engaging in argument from evidence
- 8. Obtaining, evaluating, and communicating information

| Activity 3: Crosscutting Concepts | | |
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| Performance Expectation | Crosscutting Concepts | |
| 1-LS1-2 From Molecules to Organisms: Structures and Processes | | |
| Read grade-appropriate texts and use media to determine patterns in behavior of parents and | | |
| offspring that help offspring survive. | | |
| 3-ESS3-1 Earth and Human Activity | | |
| Make a claim about the merit of a design solution that reduces the impact of a weather-related hazard. | | |
| 7-MS-ESS2-5 Earth's Systems | | |
| Collect data to provide evidence for how the motions and complex interactions of air masses | | |
| results in changes in weather conditions. | | |
| 8-MS-PS3-3 Energy | | |
| Apply scientific principles to design, construct, and test a device that either minimizes or maximizes | ; | |
| thermal energy transfer. | | |
| HS-ESS2-1 Earth's Systems | | |
| Develop a model to illustrate how Earth's internal and surface processes operate at different | | |
| spatial and temporal scales to form continental and ocean-floor features. | | |

Crosscutting Concepts

- 1. Patterns
- 2. Cause and Effect
- 3. Scale, Proportion and Quantity
- 4. Systems and Models
- 5. Energy and Matter
- 6. Structure and Function
- 7. Stability and Change

Activity 4: Instructional Shifts Video Analysis

| Video 1: Red-Winged Black Bird | | |
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| Instructional Shifts | Evidence | |
| 1. Apply content knowledge | | |
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| 2. Investigate, evaluate, and reason scientifically | | |
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| 3. Connect ideas across disciplines | | |
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| Video 2: Elementary | | |
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| Instructional Shifts | Evidence | |
| 1. Apply content knowledge | | |
| 2. Investigate, evaluate, and reason scientifically | | |
| 3. Connect ideas across disciplines | | |

| Video 3: High School | | |
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| Instructional Shifts Evidence | | |
| 1. Apply content knowledge | | |
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| 2. Investigate, evaluate, and reason scientifically | | |
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| 3. Connect ideas across disciplines | | |
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