Grade 1

STANDARDS

1-LS1-1: Biomimicry Design Solution
Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs. (Structure and Function)

1-LS1-2: Behavior - Parents and Offspring
Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.

1-LS3-1: Plant and Animal Structures - Parents and Offspring
Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents. (Patterns)

ASSESSMENTS

1-LS1-1 - Biomimicry Design
1-LS1-2 - Feeding Cardinals
1-LS3-1 - Alike and Different

ADDITIONAL RESOURCES

Mini Lesson / Vocab / Graphic Organizers

Screening Tools

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1-LS1-1: Biomimicry Design Solution

Evidence Statement

Assessment: Protect the Statue (Google Template) (Key Template)

Reflections: *Type Here*

	No	Partial	Yes
1. The assessment contains a **phenomenon** (science) or a **problem** (engineering)			
2. The **prompts** match the Science and Engineering Practice (SEP) and engage students in sense making.			
3. The **stimuli** have multiple and sufficient information needed to utilize the SEP. (e.g. multiple data sets to analyze)			
4. The **prompts** elicit observable understanding of the Disciplinary Core Idea (DCI).			
5. The **prompts** explicitly mention the Crosscutting Concept (CCC).			
6. The **prompts** include language (i.e. bullets) from grade appropriate progressions. (SEP)(DCI)(CCC)			
7. The **graphic organizers** provide space for the observable features (e.g. 1, 2, 3...) in the evidence statement. (e.g. claim, evidence and reasoning)			
8. The **entire assessment** contains information that is scientifically accurate and properly attributed. (e.g. don't make up data and include the source)			
9. The **prompts** point in the direction of explaining a phenomenon (science) or designing a solution (engineering).			
10. The **phenomenon** or **problem** is authentic, interesting, and requires students to figure something out.			
11. The **phenomenon** or **problem** is novel to show the transfer of knowledge. (i.e. not in the unit)			

Screening Tools

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1-LS1-2: Behavior - Parents and Offspring

Evidence Statement

Assessment: Feeding Cardinals (Google Template) (Key Template)

Reflections: *Type Here*

	No	Partial	Yes
1. The assessment contains a **phenomenon** (science) or a **problem** (engineering)			
2. The **prompts** match the Science and Engineering Practice (SEP) and engage students in sense making.			
3. The **stimuli** have multiple and sufficient information needed to utilize the SEP. (e.g. multiple data sets to analyze)			
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9. The **prompts** point in the direction of explaining a phenomenon (science) or designing a solution (engineering).			
10. The **phenomenon** or **problem** is authentic, interesting, and requires students to figure something out.			
11. The **phenomenon** or **problem** is novel to show the transfer of knowledge. (i.e. not in the unit)			

Screening Tools

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1-LS3-1: Plant and Animal Structures - Parents and Offspring

Evidence Statement

Assessment: Alike and Different (Google Template) (Key Template)

Reflections: *Type Here*

	No	Partial	Yes
1. The assessment contains a **phenomenon** (science) or a **problem** (engineering)			
2. The **prompts** match the Science and Engineering Practice (SEP) and engage students in sense making.			
3. The **stimuli** have multiple and sufficient information needed to utilize the SEP. (e.g. multiple data sets to analyze)			
4. The **prompts** elicit observable understanding of the Disciplinary Core Idea (DCI).			
5. The **prompts** explicitly mention the Crosscutting Concept (CCC).			
6. The **prompts** include language (i.e. bullets) from grade appropriate progressions. (SEP)(DCI)(CCC)			
7. The **graphic organizers** provide space for the observable features (e.g. 1, 2, 3...) in the evidence statement. (e.g. claim, evidence and reasoning)			
8. The **entire assessment** contains information that is scientifically accurate and properly attributed. (e.g. don't make up data and include the source)			
9. The **prompts** point in the direction of explaining a phenomenon (science) or designing a solution (engineering).			
10. The **phenomenon** or **problem** is authentic, interesting, and requires students to figure something out.			
11. The **phenomenon** or **problem** is novel to show the transfer of knowledge. (i.e. not in the unit)			

Materials / Resources

Vocabulary

1-LS1-1
Structure and Function
Human problem
Human solution (e.g. device)
Biomimicry
External structures
Plant and animal needs
Human needs

1-LS1-2
Patterns
Offspring behavior (e.g. crying, cheeping, vocalizations)
Parent response (e.g. feeding, comforting, protecting the offspring)
Survive

1-LS3-1
Plants and Animals
Parent structures
Offspring structures (alike but not exactly alike)
Patterns

Mini Lessons

Patterns Level 1 - Observational Patterns Mini-Lesson
Patterns Level 1 - Observational Patterns Thinking Slides
Patterns Level 3 - Similarities and Differences Mini-Lesson
Patterns Level 3 - Similarities and Differences Thinking Slides

Graphic Organizers

1-LS1-1 - Biomimicry Design Solution Graphic Organizer (Student Version)
1-LS1-1 - Biomimicry Design Solution Graphic Organizer (Teacher Version)
1-LS1-2 - Parents and Behavior Graphic Organizer (Student Version)
1-LS1-2 - Parents and Behavior Graphic Organizer (Teacher Version)
1-LS3-1 - Patterns of Features Graphic Organizer (Student Version)
1-LS3-1 - Patterns of Features Graphic Organizer (Teacher Version)
Phenomena Observation Graphic Organizer
Questioning Graphic Organizer
Modeling Graphic Organizer
Planning an Investigation Organizer
Investigation Evidence Organizer
Engaging in Argumentation Organizer