Patterns of Earth and Sky 3-D Assessment Objectives Overview

The NGSS Performance Expectations specify three-dimensional learning objectives for Grade 5 as well as for the 3–5 grade band. The tables below include the Performance Expectations that incorporate DCIs targeted for this unit and identify the locations of summative and formative assessments that reveal student knowledge and use of the three dimensions to support progress toward these Performance Expectations.

Each table includes the Disciplinary Core Ideas (**DCIs**), Science and Engineering Practices (**SEPs**), and Crosscutting Concepts (**CCCs**) included in that Performance Expectation and specifies the location of assessments associated with these three dimensions. Note that SEPs and CCCs build across the grade and grade band, so we list relevant assessments across grades 3–5. Also, in cases in which a DCIs is addressed in multiple units at a grade, we list assessments in the additional unit(s).

Key:

- Summative assessments are noted with (S); if not so labeled, the assessment is designed to be formative.
- **OTFA** = On-the-Fly Assessment
- **CJ** = Critical Juncture
- **PRE** = Pre-Unit Assessment
- EOU = End-of-Unit Assessment
- **TS** = Teacher Support Note
- **INV** = Investigation Assessment
- **CW** = Chapter Writing Assessment

See the Assessment System overview document for more information.

5-ESS1-1. Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.

SEP: Engaging in Argument from Evidence

Weather and Climate (Grade 3)

OTFA 3: Lesson 1.6, Activity 1 OTFA 6: Lesson 2.5, Activity 1 CW: Lesson 2.5, Activity 3 EOU 1: Lesson 3.7, Activities 1-3 (S) EOU 2: Lesson 4.4, Activities 1 & 2 (S)

Energy Conversions (Grade 4)

OTFA 6: Lesson 1.6, Activity 4 CW: Lesson 2.4, Activity 4 CW: Lesson 3.6, Activity 4 OTFA 21: Lesson 4.5, Activity 1 EOU: Lesson 4.6, Activities 1 & 2 (S)

Earth's Features (Grade 4)

PRE: Lesson 1.1, Activity 2 CW: Lesson 2.6, Activity 1 OTFA 9: Lesson 3.2, Activity 2 EOU 1: Lesson 3.5, Activity 2 (S) EOU 2: Lesson 4.5, Activity 3 (S)

Ecosystem Restoration (Grade 5)

OTFA 2: Lesson 1.4, Activity 2 OTFA 4: Lesson 1.8, Activity 3 CW: Lesson 1.8, Activity 3 OTFA 8: Lesson 2.6, Activity 3 CW: Lesson 2.7, Activity 3 CJ 3: Lesson 3.6, Activity 2 CW: Lesson 3.6, Activity 2 EOU: Lesson 3.7, Activity 2 (S)

DCI: ESS1. A: The Universe and its Stars

Patterns of Earth and Sky (Grade 5) PRE: Lesson 1.1, Activity 3 OTFA 3: Lesson 1.6, Activity 1 CJ 1: Lesson 1.7, Activity 3 CW: Lesson 1.7, Activity 3 EOU: Lesson 3.6, Activity 2 (S)

CCC: Scale, Proportion, and Quantity

Weather and Climate (Grade 3) CW: Lesson 2.5, Activity 3

Patterns of Earth and Sky (Grade 5) OTFA 2: Lesson 1.3, Activity 2

Modeling Matter (Grade 5) PRE: Lesson 1.1, Activity 2 OTFA 2: Lesson 1.3, Activity 3 OTFA 9: Lesson 2.3, Activity 3 EOU: Lesson 3.7, Activity 2 (S) **5-ESS1-2.** Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

SEP: Analyzing and Interpreting Data

Balancing Forces (Grade 3) INV: Lesson 5.1, Activity 3 (S)

Inheritance and Traits (Grade 3) OTFA 8: Lesson 2.5, Activity 4

Weather and Climate (Grade 3)

OTFA 1: Lesson 1.2, Activity 3 OTFA 2: Lesson 1.4, Activity 2 CJ 1: Lesson 1.5, Activity 3 OTFA 3: Lesson 1.6, Activity 1 OTFA 4: Lesson 2.2, Activity 2 CJ 2: Lesson 2.4, Activity 2 OTFA 6: Lesson 2.5, Activity 1 CW: Lesson 2.5, Activity 3 OTFA 7: Lesson 3.2, Activity 1 OTFA 8: Lesson 3.3, Activity 2 OTFA 9: Lesson 3.4, Activity 2 OTFA 11: Lesson 4.2, Activity 2

Vision and Light (Grade 4) INV: Lesson 5.2, Activities 1-4 (S)

Patterns of Earth and Sky (Grade 5) INV: Lesson 4.3, Activities 1-3 (S)

Modeling Matter (Grade 5) OTFA 12: Lesson 3.1, Activity 3

The Earth System (Grade 5) OTFA 7: Lesson 3.2, Activity 3

Ecosystem Restoration (Grade 5) TS: Lesson 2.1, Activity 2

DCI: ESS1.B: Earth and the Solar System

Patterns of Earth and Sky (Grade 5)

PRE: Lesson 1.1, Activity 3 OTFA 1: Lesson 1.2, Activity 1 OTFA 4: Lesson 2.1, Activity 1 OTFA 5: Lesson 2.2, Activity 4 CJ 2: Lesson 2.6, Activity 3 CW: Lesson 2.6, Activity 3 OTFA 8: Lesson 3.1, Activity 4 OTFA 9: Lesson 3.2, Activity 3 OTFA 10: Lesson 3.3, Activity 3 CJ 3: Lesson 3.5, Activity 1 EOU: Lesson 3.6, Activity 2 (S) INV: Lesson 4.3, Activities 1-3 (S)

CCC: Patterns

Balancing Forces (Grade 3) CW: Lesson 3.4, Activity 3 TS: Lesson 5.3, Activity 2

Inheritance and Traits (Grade 3) PRE: Lesson 1.1, Activity 2 OTFA 3: Lesson 1.5, Activity 1 OTFA 5: Lesson 2.2, Activity 1 EOU 1: Lesson 3.6, Activity 3 (S) EOU 2: Lesson 4.2, Activity 2 (S)

Weather and Climate (Grade 3)

PRE: Lesson 1.1, Activity 2 OTFA 5: Lesson 2.3, Activity 2 CJ 2: Lesson 2.4, Activity 2 CW: Lesson 2.5, Activity 3 OTFA 7: Lesson 3.2, Activity 1 OTFA 8: Lesson 3.3, Activity 2 CJ 3: Lesson 3.5, Activity 3 EOU 1: Lesson 3.7, Activities 1-3 (S) OTFA 11: Lesson 4.2, Activity 2 EOU 2: Lesson 4.4, Activities 1 & 2 (S)

Waves, Energy, and Information (Grade 4) PRE: Lesson 1.1, Activity 4 OTFA 1: Lesson 1.2, Activity 3 OTFA 12: Lesson 3.5, Activity 3

Patterns of Earth and Sky (Grade 5)

OTFA 4: Lesson 2.1, Activity 1 OTFA 5: Lesson 2.2, Activity 4 OTFA 8: Lesson 3.1, Activity 4 OTFA 10: Lesson 3.3, Activity 3 INV: Lesson 4.3, Activities 1-3 (S)

Modeling Matter (Grade 5) OTFA 12: Lesson 3.1, Activity 3

5-PS2-1. Support an argument that the gravitational force exerted by Earth on objects is directed down.

SEP: Engaging in Argument from Evidence

Weather and Climate (Grade 3)

OTFA 3: Lesson 1.6, Activity 1 OTFA 6: Lesson 2.5, Activity 1 CW: Lesson 2.5, Activity 3 EOU 1: Lesson 3.7, Activities 1-3 (S) EOU 2: Lesson 4.4, Activities 1 & 2 (S)

Energy Conversions (Grade 4)

OTFA 6: Lesson 1.6, Activity 4 CW: Lesson 2.4, Activity 4 CW: Lesson 3.6, Activity 4 OTFA 21: Lesson 4.5, Activity 1 EOU: Lesson 4.6, Activities 1 & 2 (S)

Earth's Features (Grade 4)

PRE: Lesson 1.1, Activity 2 CW: Lesson 2.6, Activity 1 OTFA 9: Lesson 3.2, Activity 2 EOU 1: Lesson 3.5, Activity 2 (S) EOU 2: Lesson 4.5, Activity 3 (S)

Ecosystem Restoration (Grade 5)

OTFA 2: Lesson 1.4, Activity 2 OTFA 4: Lesson 1.8, Activity 3 CW: Lesson 1.8, Activity 3 OTFA 8: Lesson 2.6, Activity 3 CW: Lesson 2.7, Activity 3 CJ 3: Lesson 3.6, Activity 2 CW: Lesson 3.6, Activity 2 EOU: Lesson 3.7, Activity 2 (S)

DCI: PS2.B: Types of Interactions

Patterns of Earth and Sky (Grade 5) OTFA 6: Lesson 2.4, Activity 2 OTFA 7: Lesson 2.5, Activity 1 CJ 2: Lesson 2.6, Activity 3 CW: Lesson 2.6, Activity 3 EOU: Lesson 3.6, Activity 2 (S)

CCC: Cause and Effect

Inheritance and Traits (Grade 3) PRE: Lesson 1.1, Activity 2 OTFA 11: Lesson 3.4, Activity 3

Vision and Light (Grade 4) PRE: Lesson 1.1, Activity 4 OTFA 3: Lesson 2.1, Activity 4 OTFA 8: Lesson 3.2, Activity 4

Patterns of Earth and Sky (Grade 5) PRE: Lesson 1.1, Activity 3

The Earth System (Grade 5) TS: Lesson 5.4, Activity 3 TS: Lesson 5.5, Activity 3