## 5-PS2 Motion and Stability: Forces and Interactions

**Students who demonstrate understanding can:**

**5-PS2-1. Support an argument that the gravitational force exerted by Earth on objects is directed down.** [Clarification Statement: “Down” is a local description of the direction that points toward the center of the spherical Earth.] [Assessment Boundary: Assessment does not include mathematical representation of gravitational force.]

### Science and Engineering Practices

**Engaging in Argument from Evidence**

Engaging in argument from evidence in 3–5 builds on K–2 experiences and progresses to critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed world(s).

- Support an argument with evidence, data, or a model. (5-PS2-1)

### Disciplinary Core Ideas

**PS2.B: Types of Interactions**

- The gravitational force of Earth acting on an object near Earth's surface pulls that object toward the planet's center. (5-PS2-1)

### Crosscutting Concepts

**Cause and Effect**

- Cause and effect relationships are routinely identified and used to explain change. (5-PS2-1)

### Articulation of DCIs across grade-levels:

- 3.PS2.A (5-PS2-1); 3.PS2.B (5-PS2-1); MS.PS2.B (5-PS2-1); MS.ESS1.B (5-PS2-1); MS.ESS2.C (5-PS2-1)

### ELA/Literacy –

- **RI.5.1** Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. (5-PS2-1)
- **RI.5.9** Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. (5-PS2-1)
- **W.5.1** Write opinion pieces on topics or texts, supporting a point of view with reasons and information. (5-PS2-1)