

THE STANDARD

Gravitational Force

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

DCI

DISCIPLINARY
CORE IDEA

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."

Gravity is the invisible pull Earth has on everything near it. Drop a pencil and it falls. Toss a ball and it comes back down. Every time, Earth pulls the object toward its center. **For a 5th grader standing on the ground, that pull feels like "down," and it never changes.**

SEP

SCIENCE &
ENGINEERING
PRACTICE

Engaging in Argument from Evidence

"Support an argument with evidence, data, or a model."

5th graders don't just say "gravity pulls down" because the teacher said so. They make an argument and back it with evidence: every object they dropped fell straight down, never sideways, never up. **The skill is using what they actually saw to defend the claim.**

CCC

CROSSCUTTING
CONCEPT

Cause and Effect

"Cause and effect relationships are routinely identified and used to explain change."

Here's the idea 5th graders carry out the door: things don't fall by accident. There's a cause. Earth's gravity is the cause, and the object moving down is the effect. **Name the cause, name the effect, and you can explain why anything you let go of drops.**