



Grade 8 STUDENT EDITION – Discovery Education



Begin Here: Please watch this 7-minute [Science Techbook Overview](#) video as you begin your review.

Unit 1 Objects Move and Collide SE page 1

Concept 1.3 Colliding Objects SE page 130



Page 2

Unit Anchor Phenomenon: [Antarctica Impact Crater](#)

Real world phenomena are introduced through up-to-date images, videos, subjects, and situations. Here, students will describe the forces necessary to cause an impact crater of the size depicted in the anchor phenomenon and identify other possible events that resulted from their impact.



Page 134

Investigative Phenomenon: [Meteorites Hitting Earth](#)

In order to support student inquiry and get them thinking like a scientist, students gather information from media about meteorites that strike Earth. Then, they ask questions that they would need to answer to support or refute a claim.



Page 142

Formative Assessment: [Moving Along](#)

Assesses students' existing knowledge about the relationship between the force and mass of two objects interacting with one another. 3D questioning provides scaffolding up to the summative performance assessments.



Page 144

Hands on Activity: [Applying Newton's Third Law to Collisions](#)

Students collaboratively design and conduct an investigation into how the mass of an object, and the amount of force applied to it, affect its motion in a collision. Detailed Teacher Guides and pre-packaged hands-on kits included.



Page 180

Claim, Evidence, Reasoning: [Meteorites Hitting Earth](#)

Students return to the initial *Can You Explain Question* and investigative phenomenon to generate a written response using claim, evidence, and reasoning related to how much energy an asteroid impact would transfer to Earth's surface. Students will learn to use evidence as a natural part of writing like a scientist.



Page 190

STEM Project: [Prepare for Impact](#)

The Unit Project allows students to return to the anchor phenomenon, Antarctica Impact Crater, for the unit and apply the performance expectations for the unit to solve or research a problem. Students will apply what they have learned about kinetic energy, velocity, and force to prepare for an asteroid collision. They will determine, based on data, the amount of time left to warn the public about a potential threat and the likely impacts of the asteroid.

Examples of Additional Concept Features available ONLINE

The Beyond section includes additional resources related to the concept including additional readings, hands on activities, and interactives. You may use these resources for remediation, extension, or differentiation, depending on the needs of your students. You will find even more resources through Search. [Beyond Resources Colliding Objects](#)

Science Content Channels - Access Discovery Education's featured resources in the [curated collection of Science channels](#). No matter what science topics you're teaching, you'll find videos, interactives, and instructional activities to design engaging lessons.