

SCIENCE LINKS 9

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UNIT 1: SUSTAINABLE ECOSYSTEMS AND HUMAN ACTIVITY

BIG IDEAS

- ✓ Ecosystems consist of a variety of components, including, in many cases, humans.
- ✓ The sustainability of ecosystems depends on balanced interactions between their components.
- ✓ Human activity can affect the sustainability of aquatic and terrestrial ecosystems.

Unit at a Glance

Get Ready

TOPIC 1.1: What are ecosystems, and why do we care about them?

TOPIC 1.2: How do interactions supply energy to ecosystems?

TOPIC 1.3: How do interactions in ecosystems cycle matter?

TOPIC 1.4: What natural factors limit the growth of ecosystems?

TOPIC 1.5: How do human activities affect ecosystems?

TOPIC 1.6: How can our actions promote sustainable ecosystems?

Unit 1 Summary

Unit 1 Project

Review Unit 1

UNIT 2: EXPLORING MATTER

BIG IDEAS

- ✓ Elements and compounds have specific properties that determine their uses.
- ✓ The use of elements and compounds has both positive and negative effects on society and the environment.

Unit at a Glance

Get Ready

TOPIC 2.1: In what ways do chemicals affect your life?

TOPIC 2.2: How do we use properties to help us describe matter?

TOPIC 2.3: What are pure substances and how are they classified?

TOPIC 2.4: How are properties of atoms used to organize elements into the periodic table?

TOPIC 2.5: In what ways do scientists communicate about elements and compounds?

TOPIC 2.6: What are some of the characteristics and consequences of chemical reactions?

Unit 2 Summary

Unit 2 Project

Review Unit 2

Unit 3: SPACE EXPLORATION

BIG IDEAS

- ✓ Celestial objects in the solar system and universe have specific properties that can be investigated and understood.
- ✓ Technologies developed for space exploration have practical applications on Earth.

Unit at a Glance

Get Ready

TOPIC 3.1: What do we see when we look at the sky?

TOPIC 3.2: What are the Sun and the Moon, and how are they linked to Earth?

TOPIC 3.3: What has space exploration taught us about our solar system?

TOPIC 3.4: What role does Canada play in space exploration?

TOPIC 3.5: How do we benefit from space exploration?

Unit 3 Summary

Unit 3 Project

Review Unit 3

Unit 4: ELECTRICAL APPLICATIONS

BIG IDEAS

- ✓ Electricity is a form of energy produced from a variety of non-renewable and renewable sources.
- ✓ The production and consumption of electrical energy has social, economic, and environmental implications.
- ✓ Static and current electricity have distinct properties that determine how they are used.

Unit at a Glance

Get Ready

TOPIC 4.1: How do the sources used to generate electrical energy compare?

TOPIC 4.2: What are charges, and how do they behave?

TOPIC 4.3: How can objects become charged and discharged?

TOPIC 4.4: How can people control and use the movement of charges?

TOPIC 4.5: What are series and parallel circuits, and how are they different?

TOPIC 4.6: What features make an electrical circuit practical and safe?

TOPIC 4.7: How can we conserve our use of electrical energy at home?

Unit 4 Summary

Unit 4 Project

Review Unit 4