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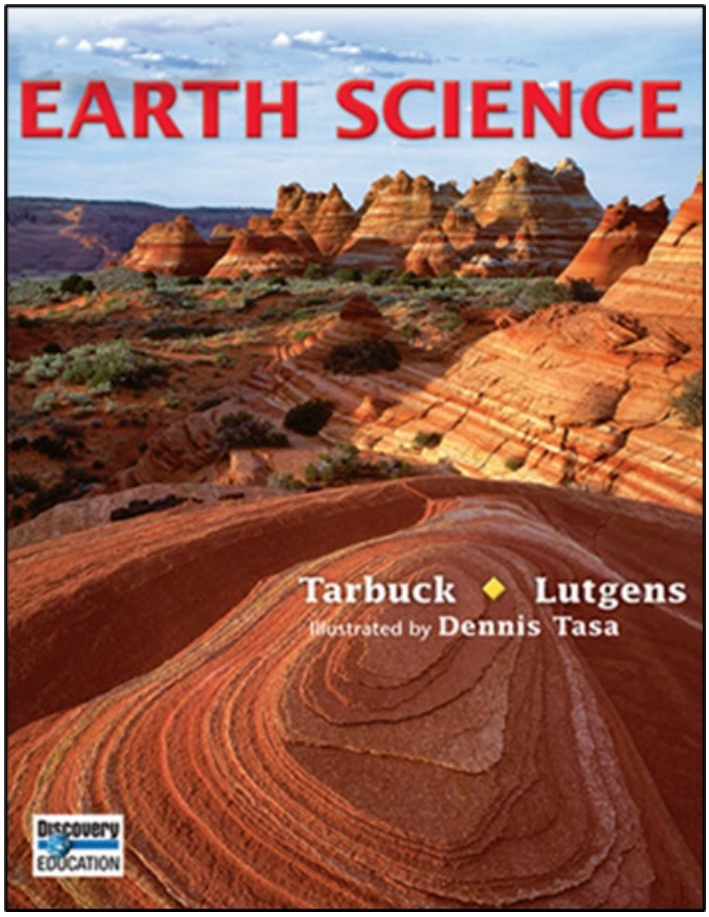

To the

Indiana
Academic Standards for Science
Earth & Space Science

Prepared by Savvas Learning Company, formerly Pearson K12 Learning

Introduction

This document demonstrates how ***Earth Science ©2017*** supports the Indiana Academic Standards for Earth and Space Science. Correlation page references are to the Student and Teacher's Editions and cited at the page level.

Engage in a journey of observation, explanation, and participation with **Savvas Earth Science**!

Renowned authors Edward Tarbuck and Frederick Lutgens invite students on a journey of observation, explanation, and participation in the study of Earth's processes. An accessible writing style combined with digital support create a fresh new program that leads your diverse classroom on a path to discovery. Detailed illustrations by Dennis Tasa provide students with a comprehensive and immersive look at the science behind our planet.

The ©2017 edition of Earth Science features support for the **Next Generation Science Standards** and STEM, as well as enhanced resources for both students and teachers:

21st Century Skills: Each chapter of Earth Science an activity geared toward developing one or 21st Century skills. All of these activities task students to capture what they are learning in the science classroom and apply their knowledge to solving real-life problems in order to encourage productive, thoughtful members of the 21st century world.

STEM Activities: STEM activities support the implementation of the engineering process in an engaging and hands-on way. Excite students with real-world engineering design problem and hands-on inquiry. These activities promote higher-order critical thinking skills and result in improved student student performance. Teachers are provided with point-of-use STEM activities and teaching strategies.

Savvas Realize: At savvasrealize.com, you can go digital with online Student Editions and online Teacher Editions, as well as access to editable worksheets.

In addition, Earth Science ©2017 supports the today's diverse classroom with key Spanish resources, including the *Spanish Guided Reading and Study Workbook* and the *Spanish Chapter Tests*.

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ES. 6.4: Create a timeline to show the development of modern tectonic plate theory. Identify and explain how the evidence from the theory of continental drift, seafloor spreading, and paleomagnetism built upon each other to support tectonic plate theory.	Supporting Content: **SE/TE:** Theory of Plate Tectonics, 10 Inquiry Try It!, How Do the Continents Fit Together?, 247 9.1 Continental Drift, 248-253 Visual Summary: Breakup of Pangaea, Figure 3, 252 9.2 Sea-Floor Spreading, 254-260 Figure 11 Paleomagnetism, 258 Figure 12 Polarity Reversals, 258-259 9.3 Theory of Plate Tectonics, 261-268 Figure 15 Earth's Tectonic Plates, 262-263 Earth & Its Systems: Plate Tectonics into the Future, 269 9.4 Mechanisms of Plate Motion, 270-271 Inquiry Exploration Lab: Paleomagnetism and the Ocean floor, 272-273 Chapter 9 Assessment: Understand Concepts, Questions 11-17, 275 Think Critically, Questions 18-22, 276 STEM Activity: Science and Engineering Practices, Developing and Using Models, Plate Tectonics: Measuring Plate Movement, 73
ES. 6.5: Create models that demonstrate different types of orogeny resulting from plate tectonics. Show how the interactions between oceanic and continental plates create different geological features (such as volcanic island arcs or high altitude plateaus) depending on what types of plates are involved in the motions along different plate boundaries.	**SE/TE:** Convergent Boundaries: 265-267 Figure 17 Oceanic-Continental Convergent Boundary, 265 Inquiry Try It!: Can You Model How Rocks Deform, 307 11.1 Forces in Earth's Crust, 308-311 11.1 Assessment: Review Key Concepts, Think Critically, Connecting Concepts, 311 11.2 Folds, Faults, and Mountains, 312-319 11.3 Mountains and Plates, 320-325 11.3 Assessment: Review Key Concepts, Think Critically, BIGIDEA Dynamic Earth, 325 Earth & Its Systems: Mountain Building Away From Plate Martins, 326-327 Inquiry Exploration Lab: Investigating Anticlines and Synclines, 328-329 Chapter 11 Study Guide: Think Visually, Convergent Boundaries that Produce Mountains, 330

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ES. 6.6: Create models and differentiate between shield, composite, and cinder cone volcanoes. Explain how volcanoes form, how the chemical composition of lava affects the type of volcanoes formed, and how the location (such as hot spots or along continental or oceanic margins) can affect the types of magma present.	**SE/TE:** Inquiry Try It!: Where Are Volcanoes Located?, 279 10.1 Volcanoes and Plate Tectonics, 280-285 Visual Summary: Figure 3 Three Types of Volcanoes, 282-283 10.1 Assessment: Review Key Concepts, Think Critically, Writing in Science, 285 10.2 The Nature of Volcanic Eruptions, 286-294 Inquiry Quick Lab: Why Are Some Volcanoes Explosive?, 287 10.2 Assessment: Review Key Concepts, Think Critically, BIGIDEA Dynamic Earth, 294 10.3 Assessment: Intrusive Igneous Activity, 295-297 10.3 Assessment: Review Key Concepts, Think Critically, 297 How Earth Works: Effects of Volcanoes, 298-299 Chapter 10 Study Guide, Think Visually, Volcanic Activity, 302 Chapter 10 Assessment: Performance-Based Assessment, Communicate Make a poster illustrating the internal and external features that are typical of a composite cone…, 304 **TE Only:** Earth Science Refresher: Not All Hots Spots Are Equal, 278C-278
ES. 6.7: Use models, diagrams, and captions to explain how tectonic motion creates earthquakes and tsunamis. Using resources such as indianamap.org, analyze how close the school is to known faults and liquefaction potential. Differentiate between intraplate fault zones such as the Wabash Valley Fault System and the more commonly discussed faults along tectonic margins.	**SE/TE:** 8.1 What Is an Earthquake?, 218-221 Visual Summary: Elastic Rebound, Figure 3, 220-221 8.1 Assessment: Review Key Concepts, Think Critically, 221 Locating an Earthquake, 226-227 Causes of Earthquake Damage, 228-230 Figure 12 How a Tsunami Forms, 230 How Earth Works: Effects of Earthquakes, 238-239 Chapter 8 Assessment: Concepts in Action, 30. Writing in Science, Research a recent earthquake and write about the earthquake damage in the style of a newspaper article, 244 Faults, 314-315 Visual Summary: Four Types of Faults, 315 **TE Only:** Use Community Resources, 229