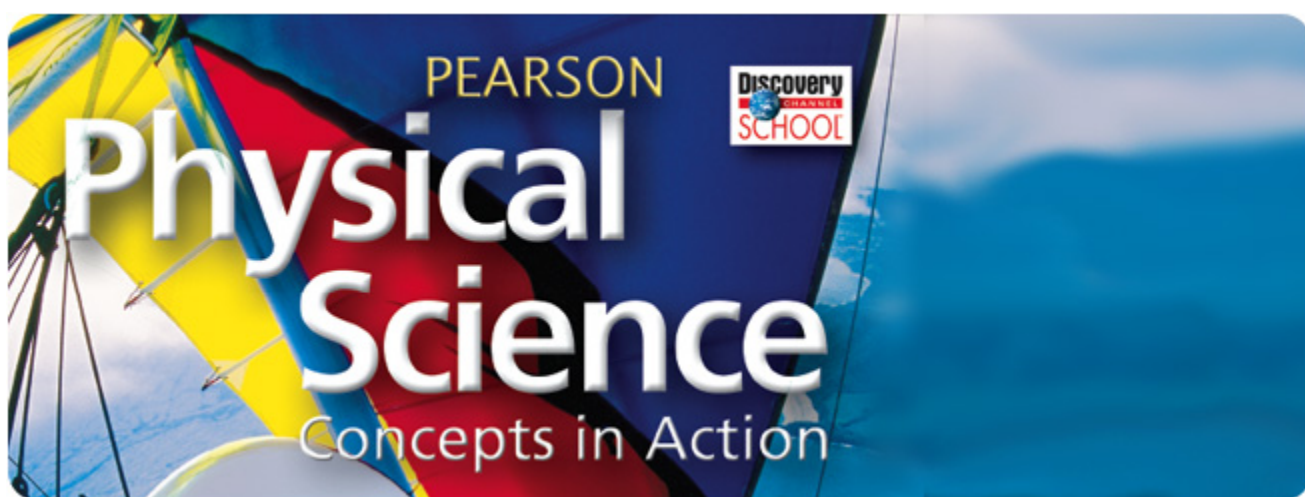


A Correlation of

Physical Science: Concepts in Action
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to the

IDAHO CONTENT STANDARDS
Physical Science
Grades 8-9

Introduction

This document demonstrates how ***Physical Science: Concepts in Action* © 2011** meets the objectives of the Idaho Content Standards for Physical Science. Correlation page references are to the Student and Teacher's Editions and are cited at the page level.

Prentice Hall ***Physical Science: Concepts in Action*** helps students make the important connection between the science they read and what they experience every day. Relevant content, lively explorations, and a wealth of hands-on activities take students' understanding of science beyond the page and into the world around them. The program includes even more technology, tools and activities to support differentiated instruction!

Each chapter in ***Physical Science: Concepts in Action*** begins with an activity geared toward developing one or more 21st century skills. All of these activities ask students to capture what they are learning in biology class and apply the knowledge to solving real-life problems in order to encourage productive, thoughtful members of the 21st century world.

Additional Features and Benefits

- A proven formula for reading success before, during, and after every lesson enables students to fully understand key concepts.
- **Virtual Physics Lab CD-ROM**, a Pearson exclusive feature, (interactive whiteboard ready) allows students to perform and extend a variety of labs that correspond to the program. Teachers and students can use the simulated lab environment to do virtually any lab they could do in a real lab. Developed by Brigham Young University, a more robust virtual lab can't be found anywhere else.
- Exclusive partnership with **Discovery Channel School™** brings exciting video content to every chapter.
- The **Complete Interactive Textbook**—available online and on CD-ROM. Audio of the full text read aloud supports English Language learners and reluctant readers.
- **PresentationEXPRESS™** helps create dynamic presentation with slides, videos, and participatory activities.

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 Correlated to the Idaho Content Standards Science Physical Science

| Idaho Content Standards Physical Science Grade 8-9 | <i>Physical Science: Concepts in Action</i> |
|---|--|
| Standard 1: Nature of Science | |
| Goals: | |
| Goal 1.1: Understand Systems, Order, and Organization | |
| 8-9.PS.1.1.1 Explain the scientific meaning of system, order, and organization. (648.01a) | <i>Opportunities to address this standard can be found on the following pages:</i> SE/TE: 486-492, 609-610 |
| 8-9.PS.1.1.2 Apply the concepts of order and organization to a given system. (648.01a) | SE/TE: 486-492, 495-496, 609-610, 613, 625-626 |
| Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanations | |
| 8-9.PS.1.2.1 Use observations and data as evidence on which to base scientific explanations. (648.02a) | SE/TE: 46, 56, 90, 117, 167, 203, 220-221, 243, 265, 316-317, 330, 438-439, 493, 563, 648-649 |
| 8-9.PS.1.2.2 Develop models to explain concepts or systems. (648.02b) | SE/TE: 128, 173, 196, 265, 300, 304, 605, 614 |
| 8-9.PS.1.2.3 Develop scientific explanations based on knowledge, logic, and analysis. (648.02c) | SE/TE: 46, 56, 90, 117, 167, 203, 220-221, 243, 265, 316-317, 330, 438-439, 493, 563, 648-649 |
| Goal 1.3: Understand Constancy, Change, and Measurement | |
| 8-9.PS.1.3.1 Measure changes that can occur in and among systems. (648.03b) | SE/TE: 623 |
| 8-9.PS.1.3.2 Analyze changes that can occur in and among systems. (648.03b) | SE/TE: 486-487, 489-492, 496, 609-610, 623, 625-626 |
| 8-9.PS.1.3.3 Measure and calculate using the metric system. (648.03c) | SE/TE: 18, 20, 30, 31, 26-27, 79, 92-93, 102, 150-151, 254-255, 285, 349, 383, 467, 493 |
| Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State | |
| No objectives at this grade level. | |
| Goal 1.5: Understand Concepts of Form and Function | |
| No objectives in Earth Science. | |
| Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills | |
| 8-9.PS.1.6.1 Identify questions and concepts that guide scientific investigations. (649.01a) | SE/TE: 26-27, 92-93, 60-61, 119, 150-151, 184-185, 254-255, 316-317, 349, 383, 405, 493, 524-525, 563, 623 |

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| Idaho Content Standards Physical Science Grade 8-9 | Physical Science: Concepts in Action |
|--|--|
| 8-9.PS.1.6.2 Utilize the components of scientific problem solving to design, conduct, and communicate results of investigations. (649.01b) | SE/TE: 26-27, 60-61, 92-93, 99, 119, 150-151, 220-221, 254-255, 349, 383, 405, 493, 524-525, 563, 623 |
| 8-9.PS.1.6.3 Use appropriate technology and mathematics to make investigations. (649.01c) | SE/TE: 26-27, 92-93, 119, 150-151, 254-255, 349, 383, 405, 438-439, 467, 493, 623, 648-649 |
| 8-9.PS.1.6.4 Formulate scientific explanations and models using logic and evidence. (649.01d) | SE/TE: 46, 56, 90, 117, 167, 203, 220-221, 316-317, 330, 349, 405, 438-439, 493, 563, 648-649 |
| 8-9.PS.1.6.5 Analyze alternative explanations and models. (649.01e) | SE/TE: 316-317 |
| 8-9.PS.1.6.6 Communicate and defend a scientific argument. (649.01f) | SE/TE: 6, 59, 96, 118, 258, 281, 302, 320, 369, 442, 470, 496, 513, 579, 608 |
| 8-9.PS.1.6.7 Explain the differences among observations, hypotheses, and theories. (649.01g) | SE/TE: 8-9 |
| Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors | |
| No objectives at this grade level. | |
| Goal 1.8: Understand Technical Communication | |
| 8-9.PS.1.8.1 Analyze technical writing, graphs, charts, and diagrams. (658.02a) | SE/TE: 64, 122, 154, 188, 224, 225, 258, 288, 352, SE/TE: 386, 387, 409, 496, 596, 625 |
| Standard 2: Physical Science | |
| Goal 2.1: Understand the Structure and Function of Matter and Molecules and Their Interactions | |
| No objectives in Physical Science. | |
| Goal 2.2: Understand Concepts of Motion and Forces | |
| 8-9.PS.2.2.1 Explain motion using Newton's Laws of Motion. (650.04b) | SE/TE: 364-365, 367-369, 372-373, 377, 384, 385-386, 387 |
| Goal 2.3: Understand the Total Energy in the Universe is Constant | |
| 8-9.PS.2.3.1 Explain that energy can be transformed but cannot be created nor destroyed. (650.05a) | SE/TE: 451, 453-459, 468, 469-470, 471 |
| 8-9.PS.2.3.2 Classify energy as potential and/or kinetic and as energy contained in a field. (650.05b) | SE/TE: 447-450, 468, 469, 471 |

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| Idaho Content Standards Physical Science Grade 8-9 | Physical Science: Concepts in Action |
|--|--|
| Goal 2.4: Understand the Structure of Atoms | |
| 8-9.PS.2.4.1 Describe the properties, function, and location of protons, neutrons, and electrons. (650.01a) | SE/TE: 108-109, 112, 120, 121, 123 |
| 8-9.PS.2.4.2 Explain the processes of fission and fusion. (650.01b) | SE/TE: 309-315, 316-317, 318, 319-320 |
| 8-9.PS.2.4.3 Describe the characteristics of isotopes. (650.01c) | SE/TE: 112, 120, 121-122 |
| 8-9.PS.2.4.4 State the basic electrical properties of matter. (650.01d) | SE/TE: 108-109, 112, 121-122, 123, 600-603, 624, 625-626 |
| 8-9.PS.2.4.5 Describe the relationships between magnetism and electricity. | SE/TE: 635-639, 650, 651-652 |
| Goal 2.5: Understand Chemical Reactions | |
| 8-9.PS.2.5.1 Explain how chemical reactions may release or consume energy while the quantity of matter remains constant. (650.03a) | SE/TE: 191, 193, 198, 200, 202, 204, 206-209, 222, 223-224 |
| Standard 3: Biology | |
| No goals or objectives in Earth Science. | |
| Standard 4: Earth and Space Systems | |
| No goals or objectives in Physical Science. | |
| Standard 5: Personal and Social Perspectives; Technology | |
| Goals: | |
| Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced | |
| No objectives in Physical Science. | |
| Goal 5.2: Understand the Relationship between Science and Technology | |
| 8-9.PS.5.2.1 Explain how science advances technology. (655.01a) | SE/TE: 3, 6, 28, 122, 182-183, 306-307, 312-314, 402-403, 434, 522-523, 554-557, 560-561, 586-587, 591, 620 |
| 8-9.PS.5.2.2 Explain how technology advances science. (655.01a) | SE/TE: 3, 6, 28, 111, 122, 305, 382, 516, 544-545, 580-581, 584-585, 640-641 |
| 8-9.PS.5.2.3 Explain how science and technology are pursued for different purposes. (656.01b) | SE/TE: 3, 6, 29 |
| Goal 5.3: Understand the Importance of Natural Resources and the Need to Manage and Conserve Them | |
| No objectives in Physical Science. | |