# Tennessee Performance Indicators State > Science (2008) Grade 7 ☐ Inquiry ☐ Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.

- ► What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
  - ▶ **SPI 0707.Inq.1** Design a simple experimental procedure with an identified control and appropriate variables.
- BrainPOP Scientific Method
- BrainPOP Science Projects

#### Tennessee Curriculum Standards > Science (2008)

Grade 7 🕒 Inquiry

- ► Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
  - ▶ What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
    - ► **GLE 0707.Inq.1** *Design and conduct open-ended scientific investigations.*
  - BrainPOP Science Projects
  - BrainPOP Scientific Method

#### **Tennessee Performance Indicators State > Science (2008)**

Grade 7 🕒 Inquiry

- Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
  - ▶ What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
    - ▶ SPI 0707.Inq.2 Select tools and procedures needed to conduct a moderately complex experiment.
  - BrainPOP Science Projects
  - BrainPOP Scientific Method
  - BrainPOP Microscopes
  - GameUp Virtual Labs: Disposable Lab Equipment
  - GameUp Virtual Labs: Gram Staining
- 2 more resources

#### **Tennessee Curriculum Standards > Science (2008)**

- ▶ Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
  - ▶ What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
    - ► GLE 0707.Inq.2 Use appropriate tools and techniques to gather, organize, analyze, and interpret data.
  - BrainPOP Science Projects
  - BrainPOP Scientific Method

#### **Tennessee Performance Indicators State > Science (2008)**

- Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
  - ▶ What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
    - ▶ **SPI 0707.Inq.3** *Interpret and translate data in a table, graph, or diagram.*
  - BrainPOP Problem Solving Using Tables
- BrainPOP Distance, Rate, and Time

# **Tennessee Curriculum Standards > Science (2008)**

- Grade 7
- Inquiry
  - Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
    - ▶ What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
      - ► **GLE 0707.Inq.3** Synthesize information to determine cause and effect relationships between evidence and explanations.
    - BrainPOP Earth
    - BrainPOP Precision and Accuracy
    - BrainPOP Cars

#### **Tennessee Performance Indicators State > Science (2008)**

- Grade 7
- Inquiry
  - Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
    - What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
      - ▶ **SPI 0707.Inq.4** Draw a conclusion that establishes a cause and effect relationship supported by evidence.
    - BrainPOP Precision and Accuracy

# Tennessee Curriculum Standards > Science (2008)

- Grade 7
- Inquiry
  - Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
    - ▶ What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
      - **▶ GLE 0707.Inq.4** Recognize possible sources of bias and error, alternative explanations, and questions for further exploration.
    - BrainPOP Science Projects

#### Tennessee Curriculum Standards > Science (2008)

Grade 7

- Inquiry
  - Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21st century.
    - What tools, skills, knowledge, and dispositions are needed to conduct scientific inquiry?
      - ► **GLE 0707.Inq.5** Communicate scientific understanding using descriptions, explanations, and models.
    - BrainPOP Science Projects

#### **Tennessee Performance Indicators State > Science (2008)**

- Grade 7
- Technology & Engineering
  - Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
    - How do science concepts, engineering skills, and applications of technology improve the quality of life?
      - ▶ SPI 0707.T/E.1 Identify the tools and procedures needed to test the design features of a prototype.
    - BrainPOP Science Projects
    - BrainPOP 3D Printing
    - BrainPOP Microscopes

#### **Tennessee Curriculum Standards > Science (2008)**

Grade 7

Technology & Engineering

- Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
  - How do science concepts, engineering skills, and applications of technology improve the quality of life?
    - ▶ GLE 0707.T/E.1 Explore how technology responds to social, political, and economic needs.
  - BrainPOP Robots
  - BrainPOP Television

- Grade 7
- Technology & Engineering
  - Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
    - ▶ How do science concepts, engineering skills, and applications of technology improve the quality of life?
      - ▶ SPI 0707.T/E.2 Evaluate a protocol to determine if the engineering design process was successfully applied.
    - BrainPOP Critical Reasoning

# **Tennessee Curriculum Standards > Science (2008)**

- Grade 7
- Technology & Engineering
  - Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
    - ► How do science concepts, engineering skills, and applications of technology improve the quality of life?
      - ► **GLE 0707.T/E.2** Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.
    - BrainPOP Building Basics
    - BrainPOP Bridges
- 3 more resources
  - GameUp CSI: Flight Adventure's Forces of Flight

# **Tennessee Performance Indicators State > Science (2008)**

- Grade 7
- Technology & Engineering
  - Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
    - ► How do science concepts, engineering skills, and applications of technology improve the quality of life?
      - SPI 0707.T/E.3 Distinguish between the intended benefits and the unintended consequences of a new technology.
    - BrainPOP Television
    - BrainPOP Robots

#### Tennessee Curriculum Standards > Science (2008)

- Grade 7
- Technology & Engineering
  - ► Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.
    - ▶ How do science concepts, engineering skills, and applications of technology improve the quality of life?
      - ▶ **GLE 0707.T/E.3** Compare the intended benefits with the unintended consequences of a new technology.
    - BrainPOP Cell Phone

- BrainPOP Nanotechnology
- BrainPOP Outer Solar System
- BrainPOP Refrigerator
- 3 more resources

- Grade 7
- Life Science
  - ▶ 1 All living things are made of cells that perform functions necessary for life.
    - ▶ How are plant and animals cells organized to carry on the processes of life?
      - ▶ **SPI 0707.1.1** *Identify and describe the function of the major plant and animal cell organelles.*
    - BrainPOP Cell Specialization
    - BrainPOP Cell Structures
- 5 more resources
  - GameUp Microbes
  - GameUp What Plants Need

# **Tennessee Curriculum Standards > Science (2008)**

- Grade 7
- Life Science
  - ▶ 1 All living things are made of cells that perform functions necessary for life.
    - ▶ How are plant and animals cells organized to carry on the processes of life?
      - ▶ **GLE 0707.1.1** Make observations and describe the structure and function of organelles found in plant and animal cells.
    - BrainPOP Cell Specialization
    - BrainPOP Cell Structures
- 5 more resources
  - GameUp Microbes
  - GameUp What Plants Need

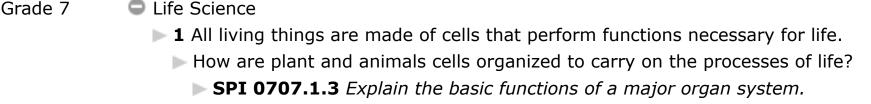
# **Tennessee Performance Indicators State > Science (2008)**

- Grade 7
- Life Science
  - ▶ 1 All living things are made of cells that perform functions necessary for life.
    - ► How are plant and animals cells organized to carry on the processes of life?
      - ▶ **SPI 0707.1.2** Interpret a chart to explain the integrated relationships that exist among cells, tissues, organs, and organ systems.
    - BrainPOP Urinary System
    - BrainPOP Circulatory System
    - BrainPOP Respiratory System
    - BrainPOP Cells
- 4 more resources

#### **Tennessee Curriculum Standards > Science (2008)**

- Grade 7
- Life Science
  - ▶ 1 All living things are made of cells that perform functions necessary for life.
    - ▶ How are plant and animals cells organized to carry on the processes of life?
      - **▶ GLE 0707.1.2** Summarize how the different levels of organization are integrated within living systems.
    - BrainPOP Cells

#### **Tennessee Performance Indicators State > Science (2008)**



- BrainPOP Circulatory System
- BrainPOP Human Body
- 12 more resources
  - GameUp Guts and Bolts

#### Tennessee Curriculum Standards > Science (2008)

- 1 All living things are made of cells that perform functions necessary for life.
- How are plant and animals cells organized to carry on the processes of life?
  - ▶ **GLE 0707.1.3** Describe the function of different organ systems and how collectively they enable complex multicellular organisms to survive.
- BrainPOP Nervous System
- BrainPOP Human Body
- 13 more resources
  - GameUp Guts and Bolts

#### **Tennessee Performance Indicators State > Science (2008)**

Grade 7

- Life Science
  - ▶ 1 All living things are made of cells that perform functions necessary for life.
    - ▶ How are plant and animals cells organized to carry on the processes of life?
      - ▶ **SPI 0707.1.4** Sequence a series of diagrams that depict chromosome movement during plant cell division.
    - BrainPOP Cell Specialization
    - BrainPOP Gender Determination
    - BrainPOP Mitosis

# Tennessee Curriculum Standards > Science (2008)

Grade 7

- Life Science
  - ▶ 1 All living things are made of cells that perform functions necessary for life.
    - ▶ How are plant and animals cells organized to carry on the processes of life?
      - ▶ **GLE 0707.1.4** Illustrate how cell division occurs in sequential stages to maintain the chromosome number of a species.
    - BrainPOP Mitosis
    - BrainPOP Gender Determination

# **Tennessee Performance Indicators State > Science (2008)**

- Life Science
  - ▶ 1 All living things are made of cells that perform functions necessary for life.
    - ▶ How are plant and animals cells organized to carry on the processes of life?
      - **SPI 0707.1.5** Explain how materials move through simple diffusion.
    - BrainPOP Diffusion

- BrainPOP Gills
- BrainPOP Active Transport
- BrainPOP Passive Transport

#### Tennessee **Curriculum Standards > Science (2008)**

- Grade 7
- Life Science
  - ▶ 1 All living things are made of cells that perform functions necessary for life.
    - ▶ How are plant and animals cells organized to carry on the processes of life?
      - ▶ **GLE 0707.1.5** Observe and explain how materials move through simple diffusion.
    - BrainPOP Active Transport
    - BrainPOP Passive Transport
    - BrainPOP Diffusion
    - BrainPOP Gills
- 3 more resources

# **Tennessee Performance Indicators State > Science (2008)**

- Grade 7
- Life Science
  - **3** Matter and energy flow through the biosphere.
    - ▶ What scientific information explains how matter and energy flow through the biosphere?
      - ▶ SPI 0707.3.1 Compare the chemical compounds that make up the reactants and products of photosynthesis and respiration.
    - BrainPOP Photosynthesis
    - BrainPOP Algae
    - BrainPOP Metabolism
    - GameUp Reach for the Sun

#### Tennessee

#### **Curriculum Standards > Science (2008)**

- Grade 7
- Life Science
  - **3** Matter and energy flow through the biosphere.
    - ▶ What scientific information explains how matter and energy flow through the biosphere?
      - ▶ **GLE 0707.3.1** Distinguish between the basic features of photosynthesis and respiration.
    - BrainPOP Metabolism
    - BrainPOP Photosynthesis
- 2 more resources
  - GameUp What Plants Need

#### Tennessee

# **Performance Indicators State > Science (2008)**

- Grade 7
- Life Science
  - **3** Matter and energy flow through the biosphere.
    - ▶ What scientific information explains how matter and energy flow through the biosphere?
      - ▶ SPI 0707.3.2 Interpret a diagram to explain how oxygen and carbon dioxide are exchanged between living things and the environment.
    - BrainPOP Gills

#### Tennessee

# **Curriculum Standards > Science (2008)**

- Grade 7
- Life Science
  - **3** Matter and energy flow through the biosphere.
    - What scientific information explains how matter and energy flow through the biosphere?

**GLE 0707.3.2** Investigate the exchange of oxygen and carbon dioxide between living things and the environment.

- BrainPOP Blood
- BrainPOP Cellular Respiration

#### **Tennessee Performance Indicators State > Science (2008)**

Grade 7

Life Science

-

- ▶ 4 Plants and animals reproduce and transmit hereditary information between generations.
  - ► What are the principal mechanisms by which living things reproduce and transmit information between parents and offspring?
    - > SPI 0707.4.1 Classify methods of reproduction as sexual or asexual.
  - BrainPOP Asexual Reproduction
  - BrainPOP Bacteria
  - BrainPOP Cnidarians
  - BrainPOP Reproductive System
- 6 more resources

#### **Tennessee Curriculum Standards > Science (2008)**

Grade 7

- Life Science
  - ▶ 4 Plants and animals reproduce and transmit hereditary information between generations.
    - ► What are the principal mechanisms by which living things reproduce and transmit information between parents and offspring?
      - ▶ **GLE 0707.4.1** Compare and contrast the fundamental features of sexual and asexual reproduction.
    - BrainPOP Asexual Reproduction
    - BrainPOP Cnidarians
    - BrainPOP Bacteria
    - BrainPOP Reproductive System

#### **Tennessee Performance Indicators State > Science (2008)**

Grade 7

- Life Science
  - ▶ 4 Plants and animals reproduce and transmit hereditary information between generations.
    - What are the principal mechanisms by which living things reproduce and transmit information between parents and offspring?
      - **SPI 0707.4.2** *Match flower parts with their reproductive functions.*
    - BrainPOP Pollination
    - BrainPOP Asexual Reproduction
- 4 more resources
  - GameUp Reach for the Sun
  - GameUp Build-A-Tree
  - GameUp What Plants Need

# **Tennessee Curriculum Standards > Science (2008)**

- Life Science
  - 4 Plants and animals reproduce and transmit hereditary information between generations.
  - What are the principal mechanisms by which living things reproduce and transmit information between parents and offspring?

- ▶ GLE 0707.4.2 Demonstrate an understanding of sexual reproduction in flowering plants.
- BrainPOP Pollination
- BrainPOP Reproductive System
- 2 more resources
  - GameUp Reach for the Sun

Grade 7

- Life Science
  - ▶ 4 Plants and animals reproduce and transmit hereditary information between generations.
    - What are the principal mechanisms by which living things reproduce and transmit information between parents and offspring?
      - ▶ **SPI 0707.4.3** Describe the relationship among genes, chromosomes, and inherited traits.
    - BrainPOP Gender Determination
    - BrainPOP Genetics
- 2 more resources
  - GameUp Crazy Plant Shop

## **Tennessee Curriculum Standards > Science (2008)**

Grade 7

- Life Science
  - ▶ 4 Plants and animals reproduce and transmit hereditary information between generations.
    - ► What are the principal mechanisms by which living things reproduce and transmit information between parents and offspring?
      - ▶ **GLE 0707.4.3** Explain the relationship among genes, chromosomes, and inherited traits.
    - BrainPOP Gender Determination
    - BrainPOP Genetics
- 2 more resources
  - GameUp Crazy Plant Shop

#### **Tennessee** Performance Indicators State > Science (2008)

Grade 7

- Life Science
  - ▶ 4 Plants and animals reproduce and transmit hereditary information between generations.
    - ► What are the principal mechanisms by which living things reproduce and transmit information between parents and offspring?
      - ▶ **SPI 0707.4.4** Interpret a Punnett square to predict possible genetic combinations passed from parents to offspring during sexual reproduction.
    - BrainPOP Blood Types
    - BrainPOP Reproductive System
    - GameUp Crazy Plant Shop

#### Tennessee Curriculum Standards > Science (2008)

- Life Science
  - ▶ 4 Plants and animals reproduce and transmit hereditary information between generations.
    - What are the principal mechanisms by which living things reproduce and transmit information between parents and offspring?
    - ▶ **GLE 0707.4.4** Predict the probable appearance of offspring based on the genetic characteristics of the parents.
    - BrainPOP Heredity

- BrainPOP Genetics
- 6 more resources
  - GameUp Crazy Plant Shop

# Tennessee

# **Performance Indicators State > Science (2008)**

- - ▶ 7 Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.
    - ► How is the earth affected by long-term and short term geological cycles and the influence of man? ► SPI 0707.7.1 Use a table of physical properties to classify minerals.
    - BrainPOP Mineral Identification
    - BrainPOP Crystals
    - BrainPOP Problem Solving Using Tables
    - GameUp Master Mines

#### Tennessee

#### **Curriculum Standards > Science (2008)**

- Grade 7
- Earth and Space Science
  - ▶ 7 Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.
    - ▶ How is the earth affected by long-term and short term geological cycles and the influence of man?▶ GLE 0707.7.1 Describe the physical properties of minerals.
    - BrainPOP Mineral Identification
    - BrainPOP Crystals
    - GameUp Master Mines

#### Tennessee

#### **Performance Indicators State > Science (2008)**

Grade 7

- Earth and Space Science
  - 7 Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.
    - ► How is the earth affected by long-term and short term geological cycles and the influence of man? ► SPI 0707.7.2 Label a diagram that depicts the three different rock types.
    - BrainPOP Types of Rocks

#### Tennessee

#### **Curriculum Standards > Science (2008)**

Grade 7

- Earth and Space Science
  - 7 Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.
    - ▶ How is the earth affected by long-term and short term geological cycles and the influence of man?
      - ▶ **GLE 0707.7.2** Summarize the basic events that occur during the rock cycle.
    - BrainPOP Rock Cycle

# Tennessee

#### **Performance Indicators State > Science (2008)**

Grade 7

- Earth and Space Science
  - ▶ 7 Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.
    - ▶ How is the earth affected by long-term and short term geological cycles and the influence of man?
      - **SPI 0707.7.3** *Identify the major processes that drive the rock cycle.*
    - BrainPOP Rock Cycle

#### **Tennessee Curriculum Standards > Science (2008)**

- - 7 Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.
    - ▶ How is the earth affected by long-term and short term geological cycles and the influence of man?
      - ▶ **GLE 0707.7.3** Analyze the characteristics of the earth's layers and the location of the major plates.
    - BrainPOP Earthquakes
    - BrainPOP Mountains
    - BrainPOP Plate Tectonics
    - BrainPOP Measuring Matter

Grade 7

- Earth and Space Science
  - ▶ 7 Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.
    - ► How is the earth affected by long-term and short term geological cycles and the influence of man? ► SPI 0707.7.4 Differentiate among the characteristics of the earth's three layers.
    - BrainPOP Earth's Structure
    - BrainPOP Soil
    - BrainPOP Volcanoes

#### Tennessee Curriculum Standards > Science (2008)

Grade 7

- Earth and Space Science
  - ▶ 7 Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.
    - ▶ How is the earth affected by long-term and short term geological cycles and the influence of man?
      - ► **GLE 0707.7.4** Explain how earthquakes, mountain building, volcanoes, and sea floor spreading are associated with movements of the earth's major plates.
    - BrainPOP Volcanoes
    - BrainPOP Mountains
- 3 more resources
  - GameUp Landform Detectives

#### **Tennessee Performance Indicators State > Science (2008)**

Grade 7

- Earth and Space Science
  - ▶ 7 Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.
    - ► How is the earth affected by long-term and short term geological cycles and the influence of man?
      - ▶ SPI 0707.7.5 Recognize that lithospheric plates on the scale of continents and oceans continually move at rates of centimeters per year.
    - BrainPOP Plate Tectonics
    - BrainPOP Mountains
    - BrainPOP Ocean Currents
    - BrainPOP Oceans

#### Tennessee Curriculum Standards > Science (2008)

- Earth and Space Science
  - ▶ 7 Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.
    - ▶ How is the earth affected by long-term and short term geological cycles and the influence of man?

- ► GLE 0707.7.5 Differentiate between renewable and nonrenewable resources in terms of their use by man.
- BrainPOP Gas and Oil
- BrainPOP Plastic
- BrainPOP Conserving Energy
- BrainPOP Humans and the Environment
- 6 more resources

Grade 7

- Earth and Space Science
  - **7** Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.
    - ▶ How is the earth affected by long-term and short term geological cycles and the influence of man?
      - ▶ **SPI 0707.7.6** Describe the relationship between plate movements and earthquakes, mountain building, volcanoes, and sea floor spreading.
    - BrainPOP Volcanoes
    - BrainPOP Mountains
- 3 more resources
  - GameUp Landform Detectives

# **Tennessee Curriculum Standards > Science (2008)**

Grade 7

- Earth and Space Science
  - ▶ 7 Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.
    - ▶ How is the earth affected by long-term and short term geological cycles and the influence of man?
      - ▶ **GLE 0707.7.6** Evaluate how human activities affect the earth's land, oceans, and atmosphere.
    - BrainPOP Ozone Layer
    - BrainPOP Greenhouse Effect
- 9 more resources
  - GameUp EXTREME DEPTHS
  - GameUp Landform Detectives

#### Tennessee Performance Indicators State > Science (2008)

Grade 7

- Earth and Space Science
  - ▶ 7 Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.
    - ▶ How is the earth affected by long-term and short term geological cycles and the influence of man?
      - ▶ SPI 0707.7.7 Analyze and evaluate the impact of man's use of earth's land, water, and atmospheric resources.
    - BrainPOP Humans and the Environment
    - BrainPOP Global Warming
    - BrainPOP Water Pollution
    - BrainPOP Plastic
- 9 more resources

# Tennessee Curriculum Standards > Science (2008)

- Physical Science
  - ▶ 11 Objects move in ways that can be observed, described, predicted, and measured.
    - What causes objects to move differently under different circumstances?

- **GLE 0707.11.1** *Identify six types of simple machines.*
- BrainPOP Pulley
- BrainPOP Wheel and Axle
- 4 more resources
  - GameUp Simple Machines

- Grade 7
- Physical Science
  - ▶ 11 Objects move in ways that can be observed, described, predicted, and measured.
    - ▶ What causes objects to move differently under different circumstances?
      - > SPI 0707.11.1 Differentiate between the six simple machines.
    - BrainPOP Inclined Plane
  - BrainPOP Levers
- 4 more resources
  - GameUp Simple Machines

# **Tennessee Curriculum Standards > Science (2008)**

- Grade 7
- Physical Science
  - ▶ **11** Objects move in ways that can be observed, described, predicted, and measured.
    - ▶ What causes objects to move differently under different circumstances?
      - ▶ **GLE 0707.11.2** Apply the equation for work in experiments with simple machines to determine the amount of force needed to do work.
    - BrainPOP Work
    - BrainPOP Gears
    - BrainPOP Pulley
    - BrainPOP Wheel and Axle
    - BrainPOP Newton's Laws of Motion

#### **Tennessee Performance Indicators State > Science (2008)**

- Grade 7
- Physical Science
  - ▶ **11** Objects move in ways that can be observed, described, predicted, and measured.
    - ▶ What causes objects to move differently under different circumstances?
      - ▶ **SPI 0707.11.2** Determine the amount of force needed to do work using different simple machines.
    - BrainPOP Gears
    - BrainPOP Pulley
- 6 more resources
  - GameUp Simple Machines

#### **Tennessee Curriculum Standards > Science (2008)**

- Grade 7
- Physical Science
  - ▶ 11 Objects move in ways that can be observed, described, predicted, and measured.
    - ▶ What causes objects to move differently under different circumstances?
      - ► **GLE 0707.11.3** Distinguish between speed and velocity.
    - BrainPOP Distance, Rate, and Time
    - GameUp Project T.R.I.G.
    - GameUp Build a Solar System

• GameUp Coaster Creator

#### **Tennessee Performance Indicators State > Science (2008)**

- Grade 7
- Physical Science
  - ▶ **11** Objects move in ways that can be observed, described, predicted, and measured.
    - What causes objects to move differently under different circumstances?
      - ▶ **SPI 0707.11.3** Apply proper equations to solve basic problems pertaining to distance, time, speed, and velocity.
    - BrainPOP Distance, Rate, and Time
    - BrainPOP Work
    - GameUp Coaster Creator
    - GameUp Project T.R.I.G.

#### **Tennessee Curriculum Standards > Science (2008)**

- Grade 7
- Physical Science
  - ▶ 11 Objects move in ways that can be observed, described, predicted, and measured.
    - ▶ What causes objects to move differently under different circumstances?
      - ▶ **GLE 0707.11.4** *Investigate how Newton's laws of motion explain an object's movement.*
    - BrainPOP Newton's Laws of Motion
    - BrainPOP Acceleration
- 3 more resources
  - GameUp Build a Solar System
  - GameUp Fly to Mars
  - GameUp Impulse

#### **Tennessee Curriculum Standards > Science (2008)**

- Grade 7
- Physical Science
  - ▶ **11** Objects move in ways that can be observed, described, predicted, and measured.
    - ▶ What causes objects to move differently under different circumstances?
      - ▶ **GLE 0707.11.5** Compare and contrast the basic parts of a wave.
    - BrainPOP Waves

#### **Tennessee Performance Indicators State > Science (2008)**

- Grade 7
- Physical Science
  - ▶ 11 Objects move in ways that can be observed, described, predicted, and measured.
    - ▶ What causes objects to move differently under different circumstances?
      - > SPI 0707.11.4 Identify and explain how Newton's laws of motion relate to the movement of objects.
    - BrainPOP Newton's Laws of Motion
    - BrainPOP Work
- 2 more resources
  - GameUp Build a Solar System
  - GameUp Fly to Mars
- 2 more resources

# **Tennessee Performance Indicators State > Science (2008)**

- Grade 7
- Physical Science
  - ▶ **11** Objects move in ways that can be observed, described, predicted, and measured.
    - ▶ What causes objects to move differently under different circumstances?

- ▶ **SPI 0707.11.5** Compare and contrast the different parts of a wave.
- BrainPOP Waves

# **Tennessee Curriculum Standards > Science (2008)**

Grade 7

- Physical Science
  - ▶ **11** Objects move in ways that can be observed, described, predicted, and measured.
    - ▶ What causes objects to move differently under different circumstances?
      - ▶ **GLE 0707.11.6** *Investigate the types and fundamental properties of waves.*
    - BrainPOP Refraction and Diffraction

# **Tennessee Performance Indicators State > Science (2008)**

- Physical Science
  - ▶ 11 Objects move in ways that can be observed, described, predicted, and measured.
    - ▶ What causes objects to move differently under different circumstances?
      - ▶ **SPI 0707.11.6** Differentiate between transverse and longitudinal waves in terms of how they are produced and transmitted.
    - BrainPOP Sound