

**Samples Only**

**Grade 5 Strands**

Correlations  
between  
South Carolina Curriculum Standards for Mathematics and for Science  
with  
Goldenrod's YouthTouch Technology Integration System

Prepared for the South Carolina Department of Education  
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## Mathematics- Grade Five

### Grade 5 strands:

- I. Number and Numeration Systems
- II Numerical and Algebraic Concepts and Operations
- III. Patterns, Relationships and Functions
- IV. Geometry and Spatial Sense
- V. Measurement
- VI Probability and Statistics
- \*\* VII Computer/Technology Standards

"In grade 5, students extend their understanding of mathematics, building on the foundations established during the primary grades. The fifth grade standards are organized under the six strands. **Standards** labeled alphabetically are unifying concepts throughout the 4-6 grades. The bullets explain the specific knowledge and **skills** expected in fifth grade. These concepts should be taught in the **context** of real-world applications through the processes of problem solving, reasoning, communication, and connections using appropriate manipulatives and technology."

### I. Number and Numeration Systems

- C. Use concrete models to explore ratio and proportions.

The student will compare two quantities to form a ratio.

YouthTouch topics:

**Ratios** Activity 1

**Relative Ratios** Activity 1. Parts 1,2, and 3

### II. Numerical and Algebraic Concepts and Operations

- E. Solve real world and mathematical problem situations using algebraic concepts including variables and open sentences.

The student will create and solve problems involving addition, subtraction, multiplication and division of whole numbers, using paper and pencil, estimation, mental computation, and calculators.

YouthTouch topics:

**Adding Algebraically** Activities 1, 2 ,3 ,4, and 5

**Addition** Activities 1 and 2

**Subtraction** Activities 1 and 2

**Multiplication** Activities 1, 2 and 3

**Division Activities** 1, 2, and 3

**Estimating Angles** Activity4

### III. Patterns, Relationships and Functions

C. Analyze and predict functional relationships and make generalizations based on observed patterns.

YouthTouch topics:

**Creating Data Tables** Activities 3, 4 and 5.

**Graphing Results** Activity 2

## **Friction** Activity 2

#### IV. Geometry and Spatial Sense

B. Identify, describe, classify, and compare two- and three- dimensional geometric shapes, figures, and models according to their attributes.

The student will identify and describe the diameter, radius, chord, center and circumference of a circle.

The student will classify angles and triangles as right, acute, or obtuse.

The student will measure and draw right, acute, obtuse angles and triangles using appropriate tools.

YouthTouch Topics:

**Circles, Arcs, and Chords** Activity 1 and Extra for Experts

**Angles** Activities 2, 3, 4, 5, and 6

**Identifying Angles** Activities 2 and 3

**Visualizing Angles** Activity 1

**Radii** Activities 1, 2, and 3

**Circumference** Activities 1, 2, 3, 4 and Extra for Experts

#### V. Measurement

Connect measurement to other aspects of mathematics and to other disciplines

The student will use technology to explore concepts of measurement.

YouthTouch Topics:

**Measuring** Activity 2

**Timing** Activity 1 and 2

**Work** Activities 2, 3, and 4

**Ratios** Activity 1

#### VI. Probability and Statistics

Make and justify predictions based on collected data or experiments using technology whenever appropriate. \*\*\*

#### **Computer /Technology Standards**

A. Demonstrate a basic understanding of computer theory including bits, bytes, and binary logic.

YouthTouch Topics:

**Computer Language Elements** Activities 1, 2, 3, 4, 5, 6, and 7

**Cooperative Learning/ Teamwork** Activities 1, 2, and 3

## Science Standards

The science standards are organized under **Process Skills** and the four content areas of Living Things, Earth and Space Systems, **Matter and Energy**, and **Applications**. Each content area is separated into three strands: Characteristics, Interactions, and Change. Standards labeled alphabetically are unifying concepts throughout the 4-6 grades and also provide the "big ideas" of science. The bullets explain the specific knowledge and skills expected in grade five and support student learning of the big ideas under which they are organized. The process **skills and content are to be integrated together** rather than taught as discrete skills and should be taught in the **context of real-world applications**.

### Process Skills YouthTouch topic: **Friction**

- A. Observe
- B. Classify
- C. Measure
- D. Infer
- E. Predict
- F. Design, Conduct and Evaluate a Scientific Investigation
- G. Communicate

## Area III. Matter and Energy

### Strand 1 - Characteristics

- C. Describe characteristics of solids liquids and gases in terms of volume, and shape.

YouthTouch topic:

**Properties of Gases** Activities 2 and 3

### Strand 2 - Interactions

- B. The student will investigate and understand the basic characteristics of white light.  
... the visible spectrum

Youthtouch topic:

**Electromagnetic Spectrum** Activitiy 3

### Strand 3 - Change

- B. The student will observe and describe motion in terms of energy transfer and speed including explaining the results of gravity or friction acting on objects.

YouthTouch topic:

**Friction Activities** Activities 1 and 3

## Area IV. Applications

### Strand 2 - Interactions

- A. Describe the impact of agricultural technology on society and the environment.

Youthtouch topic:

**Industrial Revolution** Activity 4

- B. Describe the impact of industrial technologies on society and the environment.

Youthtouch topic: **Industrial Revolution** Activity 1, 2, 3 and Extra for Experts

**Robots** Activity 3

