

**Physical Science for Children: All About Light [K7109]
correlated to the Georgia Science Standards**

S.K.1 Asks questions, makes and keeps simple records of observations, sorts objects, communicates with others, and makes predictions and uses estimation and measurement.

Kindergarten : Inquiry : Science Inquiry, Process Skills and Problem Solving

Grade Level Required: K

S.K.5 Sorts collections of matter by any physical characteristic. Classifies objects according to pairs of opposite physical properties such as large, small; heavy, light; sink, float; hot, cold; wet, dry; or light, dark.

Kindergarten : Physical Science : Structure of Matter

Grade Level Required: K

S.K.8 Recognizes, describes and compares colors and sorts by color families. Identifies, names and groups objects by color.

Kindergarten : Physical Science : Energy and Its Transformation: Light/Color

Grade Level Required: K

S.K.10 Observes sources of light and variations in shadows. Locates source of light causing shadows. Identifies how shadows change as light source changes location in relationship to the object.

Kindergarten : Physical Science : Energy and Its Transformation: Light/Color

Grade Level Required: K

S.1.1 Asks questions, makes and keeps simple records of observations, sorts and classifies objects, communicates with others, makes predictions, uses estimation and measurement, and makes sketches and diagrams to explain ideas.

Grade 1 : Inquiry : Science Inquiry, Process Skills and Problem Solving

Grade Level Required: 1

S.2.1 Asks questions, classifies objects based on similarities and differences, communicates with others, makes inferences and predictions, uses estimation and measurement, uses evidence to construct explanations, and makes sketches and diagrams to explain ideas.

Grade 2 : Inquiry : Science Inquiry, Process Skills and Problem Solving

Grade Level Required: 2

S.2.10 Describes how plants use water, nutrients and light to produce their own food in a process called photosynthesis. Compares plants grown with all of these resources with plants deprived of these resources.

Grade 2 : Life Science : The Living World: Plants

Grade Level Required: 2

S.3.1 Asks questions, classifies objects and events, communicates with others, makes inferences and predictions, uses estimation and measurement, uses evidence to construct explanations, makes sketches and diagrams to explain ideas, and organizes data into tables and charts to interpret and formulate simple hypotheses.

Grade 3 : Inquiry : Science Inquiry, Process Skills and Problem Solving

Grade Level Required: 3

S.3.5 Identifies and explores sources of heat energy such as fire and electricity.

Grade 3 : Physical Science : Energy and Its Transformation: Heat

Grade Level Required: 3

S.3.6 Identifies heat as a form of energy. Tests effect of heat on ice or water.

Grade 3 : Physical Science : Energy and Its Transformation: Heat

Grade Level Required: 3

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S.4.1 Asks questions, makes inferences and predictions, uses estimation and measurement, uses evidence to construct explanations, makes sketches and diagrams to explain ideas, organizes data into tables and charts for interpretation, reads and interprets various types of graphs, formulates simple hypotheses, identifies and controls a limited number of variables, and designs a simple experiment.

Grade 4 : Inquiry : Inquiry , Process Skills, and Problem Solving

Grade Level Required: 4

S.4.18 Demonstrates how light travels and can be separated into a visible spectrum. Produces a rainbow using a prism, water or oil (refraction).

Grade 4 : Physical Science : Energy and Its Transformations: Light and Color

Grade Level Required: 4

S.4.19 Investigates the characteristics of light, its movement and its action with objects. Demonstrates how to use mirrors to control direction of light (reflection). Manipulates mirrors to demonstrate and measure directions of light beams, angle of incidence and angle of reflection. Observes the refractive behavior of light using lenses (concave and convex), microscopes and telescopes. Distinguishes between transparent, translucent, and opaque.

Grade 4 : Physical Science : Energy and Its Transformations: Light and Color

Grade Level Required: 4

S.4.21 Investigates the relationship of light, color and heat absorption. Makes comparisons of heat absorption based on color of objects (such as clothing or construction paper).

Grade 4 : Physical Science : Energy and Its Transformations: Light and Color

Grade Level Required: 4

S.4.22 Describes the technological procedures/devices that use light. Selects a topic and uses a variety of media resources to investigate selected topics (laser, optical fiber technology, or infrared devices)

Grade 4 : Physical Science : Energy and Its Transformations: Light and Color

Grade Level Required: 4
