



## Rainbows, Color, and Light Lessons

### Websites

#### [Color Vision](#)

Children can make a whole rainbow by mixing red, green, and blue light on this interactive website.

(<http://phet.colorado.edu/en/simulation/color-vision>)

#### [Light and Shadows](#)

In this interactive website, children try to make a shadow bigger.

([http://www.bbc.co.uk/schools/ks2bitesize/science/physical\\_processes/light\\_shadows/play.shtml](http://www.bbc.co.uk/schools/ks2bitesize/science/physical_processes/light_shadows/play.shtml))



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### Books

#### Color

##### **Big Red Barn**

By Margaret Wise Brown; illustrated by Felicia Bond. (1956, HarperCollins Publishers)  
Depicts a full day, from sunrise through sunset, for the animals who live in the big red barn. The illustrations nicely show how the bright colors of the farm in daylight change as night falls.

##### **Color Dance**

By Ann Jonas. (1989 Greenwillow Books)  
A fantasy, which also gives accurate information about color. It shows children dancing with scarves of different colors, combining them into secondary and tertiary colors. The illustrations show that gray makes them dark, black makes them almost disappear.

##### **Little Blue and Little Yellow**

By Leo Lionni. (1959, Scholastic Inc.)  
A fictional story about the adventures of two friends depicted as colored circles. The simple paper collage illustrations are very unique and inviting.

##### **Goodnight Moon**

By Margaret Wise Brown; illustrated by Cement Hurd. ( 1947, Harper & Row, Publishers)  
This wonderful bedtime story alternates between black and white and color illustrations. As the young bunny gradually gets ready to sleep, the color illustrations reflect the dimming light in his bedroom.

##### **Mouse Paint**

By Ellen Stoll Walsh. (1989, Harcourt Brace Jovanovich)  
A color mixing story told through the antics of three white mice who come upon some red, blue and yellow paint. Through their playful exploration, the mice create new colors, and think of an interesting way to hide from a cat.



### **The Napping House**

By Audrey Wood; illustrated by Don Wood. (1984, Harcourt Brace Jovanovich)

Written in the style of the house that Jack built, this story begins with a family taking a rest inside on a dark, rainy day, and ends with them playing outside in the bright sunshine.

### **Warthogs Paint: A Messy Color Book**

By Pamela Duncan Edwards. (2001, Hyperion Press)

Stuck inside on a rainy day, the warthogs make messes with their cans of paint. In the process, they see what happens when colors are mixed and create an indoor rainbow. Children will enjoy the mischievous fun!

## **Rainbows**

### **All the Colors of the Rainbow (Rookie Read-About Science)**

By Allan Fowler. (1998, Children's Press)

An informative, non-fiction book with basic information about how rainbows form. Includes nice photographs of real rainbows.

### **How the Weather Works (A Readers Digest Book)**

By Michael Allaby. (1995, Dorling Kindersley Ltd.)

A very good background book, well illustrated, for explaining the basic science behind weather phenomena. Teachers could find this useful as a reference and source of interesting illustrations and suggested experiments.

### **Rainbow Crow**

Retold by Nancy van Laan, illustrated by Beatriz Vidal. (1989, Alfred A. Knopf)

A Lenape Indian legend. A rainbow crow brings fire to a cold world. He loses his rainbow feathers and beautiful voice, but his burnt black feathers reflect hundreds of tiny rainbows.

### **The Rainbow Mystery (Science Solves It)**

By Jennifer Dussling; illustrated by Barry Gott. (2002, The Kane Press)

This is a fictional story of how two children track down the source of rainbows that appear on their wall, but it has a definite science bent. Children are encouraged to observe, infer, predict, experiment, compare and communicate to solve the mystery.



### **A Rainbow of My Own**

By Don Freeman. (1978, Puffin Books)

A fictional story about a boy who imagines playing with a rainbow of his own. Later he discovers a rainbow on his bedroom wall, generated by the sunlight and a goldfish bowl.

### **Raindrops and Rainbows (An Outdoor Science Book)**

By Rose Wyler; illustrated by Steven James Petruccio. (1989 Jules Messner/Simon & Schuster, Inc.)

A well illustrated book, with friendly, simple text to read aloud and an assortment of suggested experiments to explore clouds, rain, snow and rainbows.

### **What Makes a Rainbow? (A Magic Ribbon Book)**

By Betty Ann Schwartz; illustrated by Dona Turner. (2000, Piggy Toes Press)

A charming pop-up book in which different animals add one color of the rainbow until at the end, a rainbow pops up. An accompanying colored ribbon is added as each page is turned, and by the last page, there are six ribbons across the page. Children will delight in this book but it requires careful handling.

## **Light and Shadow**

### **Bear Shadow**

By Frank Asch. (1996, Silver Burdett)

A funny story about a little bear who tries, unsuccessfully, to get rid of his shadow.

### **Experiments with Light (A True Book)**

By Salvatore Tocci. (2001, Children's Press)

A beautifully illustrated book of drawings and photographs about a variety of experiments with light, including making a rainbow, mixing colors, seeing colors. Written by a high school science teacher but at a level accessible to young children.



### **Light (DK Eyewitness Books)**

By David Burnie. (2000, Dorling Kindersley Publishing, Inc.)

A highly informative guide to the study of light, with full-color photography of original equipment and experiments, and in-depth history of discoveries. Children will find the photographs fascinating, but the text is probably useful only to teachers for background information and reference.

### **Light and Dark (Science Starters)**

By Wendy Madgwick. (1999, Steck-Vaughn Company)

Experiments and activities present the properties of light and demonstrate how it can be bent, reflected in a mirror and used to make shadows, rainbows, and moving pictures.

### **Shadows and Reflections**

By Tana Hoban. (1990, Greenwillow)

This beautiful, wordless book of color photographs will spark much thought and conversation about shadows and reflections. Presents the familiar in a new and interesting light.

### **Shadows Are About**

By Ann Whitford Paul; illustrated by Mark Graham. (1996, Scholastic)

Poetic text and beautiful illustrations present the topic of shadows in a very simple and appealing way.

### **Shadows: Here, There, and Everywhere**

By Ron and Nancy Goor. (1987, HarperCollins Juvenile Books)

Black and white photographs of interesting shadows created from everyday objects, such as bicycles and staircases, are interesting and visually appealing. Simple text offers information about how shadows are produced and varied.

### **What Makes a Shadow? (Let's Read and Find Out Science)**

By Clyde Robert Bulla; illustrated by June Otani. (1994, HarperCollins Juvenile Books)

With simple text and pictures, this book explains how shadows are made and introduces children to the fun of creating and experimenting with shadows.



## Miscellaneous

### **A Drop of Water**

By Walter Wick. (1997, Scholastic Press)

A non-fiction book with spectacular photographs of water that will inspire children to design their own experiments. Children will enjoy looking through this book on their own, and the accompanying text is a good resource for teachers. Excellent photographs of bubbles and the refraction of light through water.

### **Look at Your Eyes (Let's Read and Find Out Science)**

By Paul Showers; illustrated by True Kelley. (1997, HarperCollins Children's Books)

An excellent book with very clear and informative text and illustrations about the structure and workings of the eye.

### **My First Body Book**

By Melanie and Chris Rice. (1995, Dorling Kindersley)

An introduction to the major body systems, with a combination of drawings and photographs to illustrate the clear and informative text. Includes a see-through section with layered pages depicting each system discussed in the book. Also includes a sampling of "body trivia" facts and suggested activities that children will find interesting.

### **The Nature and Science of Bubbles, Exploring the Science of Nature**

By Jane Burton and Kim Taylor. (1998, Gareth Stevens Publishing)

An extremely interesting and attractive look at bubbles as they appear in nature, as well as bubbles that are made by people.

### **Pop! A Book about Bubbles (Let's Read and Find Out Science)**

By Kimberly Brubaker Bradley; photographs by Margaret Miller. (2001, HarperCollins Children's Books)

A nice narrative of the bubble observations children often make accompanied by clear and beautiful photographs of bubbles. Inspires interesting questions and encourages children to think like scientists while playing with bubbles.