



[KidsHealth.org/classroom](http://KidsHealth.org/classroom)

## Teacher's Guide

This guide includes:

- Standards
- Related Links
- Discussion Questions
- Activities for Students
- Reproducible Materials

## Standards

This guide correlates with the following National Health Education Standards:

Students will:

- Comprehend concepts related to health promotion and disease prevention to enhance health.
- Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
- Demonstrate the ability to advocate for personal, family, and community health.

Our sense of sight allows us to explore, observe, and examine the world around us. These activities will help your students understand how people are able to see and what they can do to protect their eyes and vision.

## Related KidsHealth Links

### Articles for Kids:

#### Your Eyes

[KidsHealth.org/en/kids/eyes.html](http://KidsHealth.org/en/kids/eyes.html)

#### Movie: Eyes

[KidsHealth.org/en/kids/eyes-movie.html](http://KidsHealth.org/en/kids/eyes-movie.html)

#### Why Do Eyes Water?

[KidsHealth.org/en/kids/eyes-water.html](http://KidsHealth.org/en/kids/eyes-water.html)

#### Glasses and Contact Lenses

[KidsHealth.org/en/kids/glasses.html](http://KidsHealth.org/en/kids/glasses.html)

#### Pinkeye

[KidsHealth.org/en/kids/conjunctivitis.html](http://KidsHealth.org/en/kids/conjunctivitis.html)

#### Blindness

[KidsHealth.org/en/kids/visual-impaired.html](http://KidsHealth.org/en/kids/visual-impaired.html)

#### What It's Like to Be Color Blind?

[KidsHealth.org/en/kids/color-blind.html](http://KidsHealth.org/en/kids/color-blind.html)

#### Experiment: Are Two Eyes Better Than One?

[KidsHealth.org/en/kids/experiment-eyes.html](http://KidsHealth.org/en/kids/experiment-eyes.html)

#### Experiment: The Red, White, and Blue

[KidsHealth.org/en/kids/experiment-flag.html](http://KidsHealth.org/en/kids/experiment-flag.html)

#### Experiment: Catch the Penny!

[KidsHealth.org/en/kids/experiment-penny.html](http://KidsHealth.org/en/kids/experiment-penny.html)

## Special Needs Factsheet for Teachers:

### Visual Impairments

[KidsHealth.org/en/parents/vision-factsheet.html](http://KidsHealth.org/en/parents/vision-factsheet.html)

## Discussion Questions

*Note: The following questions are written in language appropriate for sharing with your students.*

1. What is the name of the part of the body that we use to see? If you couldn't see an object, what are some other ways that you could figure out what it was?
2. Sometimes your eyes blink without you even thinking about it. When has that happened to you? How does blinking protect your eyes?
3. Have you ever tried to look at something or pick something up with one eye covered? What happens? Is it different if you cover your left eye or your right eye?



## Activities for Students

*Note: The following activities are written in language appropriate for sharing with your students.*

### Eyes Wide Open

#### Objectives:

Students will:

- Explore how the five senses work together to give us a complete picture of the world around us
- Explain different ways the eyes naturally protect themselves

#### Materials:

- Blindfolds
- Computer with Internet access

#### Class Time:

15 minutes

#### Activity:

[Note to instructor: Make sure the room is free of obstacles or things kids could trip over before starting this activity.] People who are blind can't see, so their other senses - hearing, feeling, tasting, and smelling - need to work extra hard to help them know what's going on around them. Cover your eyes with a blindfold so that you can't see. Then, for 2 minutes, "see" what your other senses notice. What do you hear? Do you smell anything? Can you feel things in front of you? Have a friend help you keep track of time and guide you around the room. Maybe your class can go outside for a few minutes and try the same thing!

With your class, discuss the different ways your body protects your eyes. What do your eyelids do? How do your eyelashes help? Sometimes your eyes water, like when your parents are chopping onions. Why do you think that happens?

#### Extensions:

1. How do athletes protect their eyes? How do scientists practice good eye care? How can you protect your eyes and keep them safe? Make a list of ways you have seen people take care of their eyes. Using your own drawings and magazine pictures, create a poster promoting eye safety.
2. Your eyes are pretty impressive as they are, but if you could add a "super power" feature to them, what would it be? Write and illustrate a short story or comic strip about what you would do with your vision super power. Share your story with a classmate.



## Red, White, and Blue?

### Objectives:

Students will:

- Explore how their two eyes work together to support depth perception
- Explore how their eyes can see afterimages

### Materials:

- Pencils
- Metal washers or rings with a hole in the center that's a little larger than a pencil's diameter
- Small lumps of modeling clay
- Blindfolds or eye patches
- "Red, White, and Blue?" handout (or a computer with Internet access to look at the flag in the KidsHealth.org article, "Experiment: The Red, White, and Blue")
- Blank, white paper

### Class Time:

15 minutes

### Activities:

Put the washer or ring on its side and use the modeling clay to help it "stand up" near the edge of your desk. The side of the ring should be facing you. (If you're looking at the hole in the ring, turn it the other way!) Sit about one arm's length away from the ring. Cover one eye with the blindfold. Then try to put the pencil through the hole in the ring. What happens? Open both eyes and try again. What happens if you cover your other eye? Your brain uses the information it gets from your left eye and your right eye to get a complete picture of the world around you. Information from both your eyes helps your brain judge distances and depths.

Stare at the green, black, and yellow American flag for about 20 seconds. Then look at the blank piece of white paper. What do you see? The three types of cones - red, green, and blue - in the retina of the eye help you see many different colors. Sometimes if you stare at one color long enough, the cones that are sensitive to that color get tired. Then, when you look away, you see a different colored image than before - the other two types of cones that aren't tired are working extra hard! This is called an afterimage. An afterimage is a picture that your eyes see even after you have stopped looking at a certain object.

## Reproducible Materials

### Handout: Red, White, and Blue?

[KidsHealth.org/classroom/prekto2/body/functions/vision\\_handout1.pdf](http://KidsHealth.org/classroom/prekto2/body/functions/vision_handout1.pdf)

### Quiz: Vision

[KidsHealth.org/classroom/prekto2/body/functions/vision\\_quiz1.pdf](http://KidsHealth.org/classroom/prekto2/body/functions/vision_quiz1.pdf)

### Answer Key: Vision

[KidsHealth.org/classroom/prekto2/body/functions/vision\\_quiz\\_answers.pdf](http://KidsHealth.org/classroom/prekto2/body/functions/vision_quiz_answers.pdf)





Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Quiz

Draw a line from the part of the eye to its description:

- |  |  |
|--|--|
| 1. Iris  | The black circle in the middle of the eye that lets in light   |
| 2. Retina  | The colored part of your eye that's brown, blue or green   |
| 3. Pupil   | The back of the eye where the light hits and is turned into signals so the brain can understand what you're seeing |
| 4. It's a good idea to wear these to protect your eyes when it's really sunny outside: _____ |  |
| 5. True or false: Your pupils get smaller when it's bright, and larger when it's dark.       |  |

