



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 access valid information and products and services 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.



National Health Education Standards: www.cdc.gov/healthyschools/sher/standards/index.htm

From the iris to the retina, the eye is a complex organ that helps us read, ride a bike, catch a ball, and cook a meal! These activities will help your students see the big picture and learn how the parts of the eye work together with the brain to let us view the world.

Related KidsHealth Links

Articles for Kids:

Your Eyes

KidsHealth.org/en/kids/eyes.html

Glasses and Contact Lenses

KidsHealth.org/en/kids/glasses.html

What It's Like to Be Color Blind

KidsHealth.org/en/kids/color-blind.html

Blindness

KidsHealth.org/en/kids/visual-impaired.html

Articles for Teens:

Eyes

TeensHealth.org/en/teens/eyes.html

Taking Care of Your Vision

TeensHealth.org/en/teens/vision-care.html

Pinkeye (Conjunctivitis)

TeensHealth.org/en/teens/conjunctivitis.html

Styes

TeensHealth.org/en/teens/stye.html

Visual Impairment

TeensHealth.org/en/teens/visual-impairment.html

Special Needs Factsheet for Teachers:

Visual Impairments

KidsHealth.org/en/parents/vision-factsheet.html

Discussion Questions

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

1. Describe how your day might have been different if you had a visual impairment.
2. Do you wear glasses or contacts? What do you need the corrective lenses for? How did you realize you needed them? Describe how they help you see.
3. The eyes are very delicate. How does the body protect the eyes? What can we do to help protect our eyes from potential dangers like sunlight, irritants, and injuries?



Activities for Students

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

Take an Eye Tour

Objectives:

Students will:

- Identify the parts of the eye and the jobs they perform

Materials:

- Computer with Internet access
- Paper
- Art supplies (colored pencils, markers)

Class Time:

45 minutes

Activity:

Your local science museum wants to unveil a new exhibit about vision, and they've asked you to design the coolest part - a gigantic eyeball! The museum has decided that the best way to represent all of the complex parts of the eye is to build a giant model of the eye that visitors can walk through. Before you start designing your eye exhibit, check out KidsHealth for background research about what the eye looks like and how it works. On your design, make sure you include:

- Labels of different parts of the eye
- Descriptions of what each part does
- Explanations of how visitors will navigate their way through the eye

The museum wants this exhibit to wow the public as well as educate them, so be sure to include cool features that enable the visitors to interact with the eye. Features of your model can light up, talk, and move to help teach visitors about the eye and how it works.

Extensions:

1. The museum loves your design for the walk-through eye model, and it wants to expand the exhibit to include information about common vision problems like myopia, hyperopia, astigmatism, and color blindness. Next to the eye model, the museum is going to set up an information booth to provide reading materials about vision problems. Select a problem and write a brief informational handout to be distributed at the booth.
2. Invite an eye expert like an optometrist or ophthalmologist to your class to discuss more about the eye and how it works. These doctors can also explain what happens at an eye exam and provide more information about common vision problems and how they're treated.



Now You See Me ...

Objective:

Students will:

- Describe how the eyes and the brain interact to see
- Explore the latest in invisibility technology designed to fool the eye

Materials:

- Computer with Internet access
- Pen and paper, or computer word processing program and printer

Class Time:

45 minutes

Activity:

After reading the KidsHealth.org articles, write a step-by-step description about how light interacts with the parts of the eye and brain, allowing you to see the world around you.

Next, search online for information about the latest “invisibility cloak” technology. Explain how research scientists are trying to make this bit of science fiction a reality, and how invisibility technology is being designed to fool the eye.

Extension:

The eye is a delicate organ that needs protection. Write a want ad seeking a bodyguard for an eyeball. What types of things will the bodyguard need to protect the eye from? What will the bodyguard need to do to protect the eye?

Reproducible Materials

Quiz: Vision

KidsHealth.org/classroom/6to8/body/functions/vision_quiz.pdf

Answer Key: Vision

KidsHealth.org/classroom/6to8/body/functions/vision_quiz_answers.pdf



Name: _____

Date: _____

Quiz

Instructions: Answer each question.

1. What is the white part of the eye called?

- a. eye socket
- b. cornea
- c. pupil
- d. sclera

2. What does the pupil do?

3. The _____ is the biggest part of the eye.

4. True or false: Cones help the eye see black, white, and shades of gray. _____

5. Which of the following carries messages from the eyes to the brain?

- a. lacrimal glands
- b. optic nerve
- c. vitreous humor
- d. ciliary muscle

6. List three ways you can protect your eyes.

7. What is the colored part of the eye called? _____

8. True or false: People who are color blind can't see colors at all. _____

9. Which of the following describes a problem with focusing on objects that are far away?

- a. myopia
- b. hyperopia
- c. astigmatism
- d. conjunctivitis

10. List two ways you can avoid germs that cause eye infections.



Quiz Answer Key

1. What is the white part of the eye called?

- a. eye socket
- b. cornea
- c. pupil
- d. sclera

2. What does the pupil do?

The pupil lets light into the eye.

3. The vitreous body is the biggest part of the eye.

4. True or false: Cones help the eye see black, white, and shades of gray. false
Cones help the eye see color. Rods help the eye see black, white, and shades of gray.

5. Which of the following carries messages from the eyes to the brain?

- a. lacrimal glands
- b. optic nerve
- c. vitreous humor
- d. ciliary muscle

6. List three ways you can protect your eyes.

any three of the following: wear protective goggles when debris or chemicals could go flying, wear protective lenses when playing a sport that could injure your eyes, wear sunglasses, avoid being too close to fireworks, blink more often when using the computer

7. What is the colored part of the eye called? iris

8. True or false: People who are color blind can't see colors at all. false

9. Which of the following describes a problem with focusing on objects that are far away?

- a. myopia
- b. hyperopia
- c. astigmatism
- d. conjunctivitis

10. List two ways you can avoid germs that cause eye infections.

any two of the following: don't share makeup or eye drops, don't touch the tip of the eye drop bottle with your hands or eyes, don't put contacts into your mouth to wet them, wash your hands regularly, don't share towels