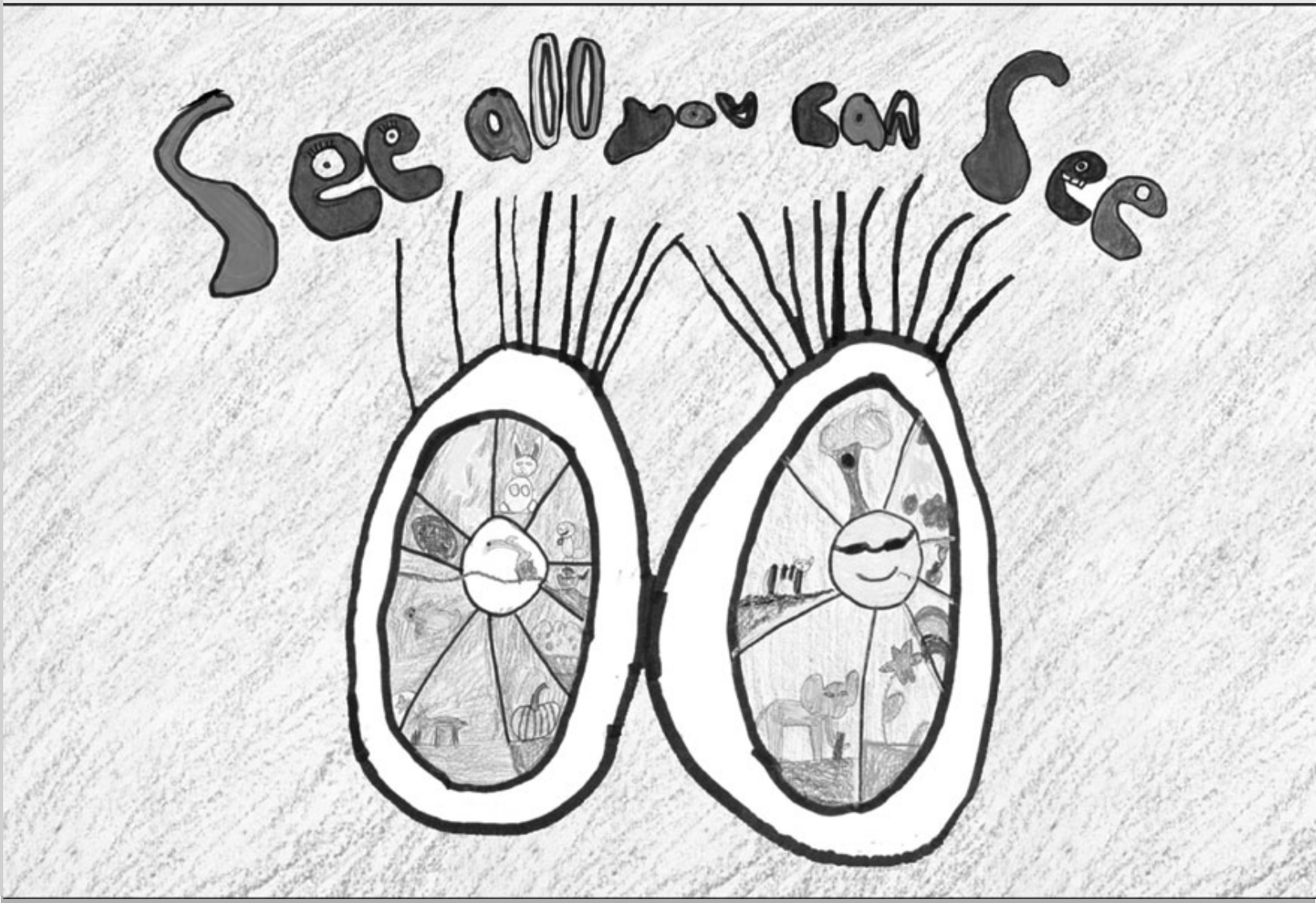
SEE ALL YOU CAN SEE

Activity Book for Ages 6-8



Cover art by Tabatha, age 9, Nashua, NH.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health
National Eye Institute

Welcome

This activity guide is designed by the National Eye Institute to help children between the ages of 6 and 8 learn about healthy vision. On the following pages you will find a variety of fun-filled activities and games that will teach children about eye disease, eye safety, and first aid for eye injuries. This activity guide can be used in school, at home, or in after-school programs.

The National Eye Institute (NEI) is part of the National Institutes of Health, an agency of the U.S. Department of Health and Human Services. NEI's research on eye diseases and disorders leads to sight-saving treatments and plays a key role in reducing visual impairment and blindness.

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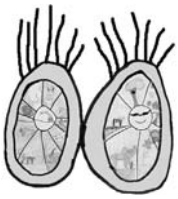
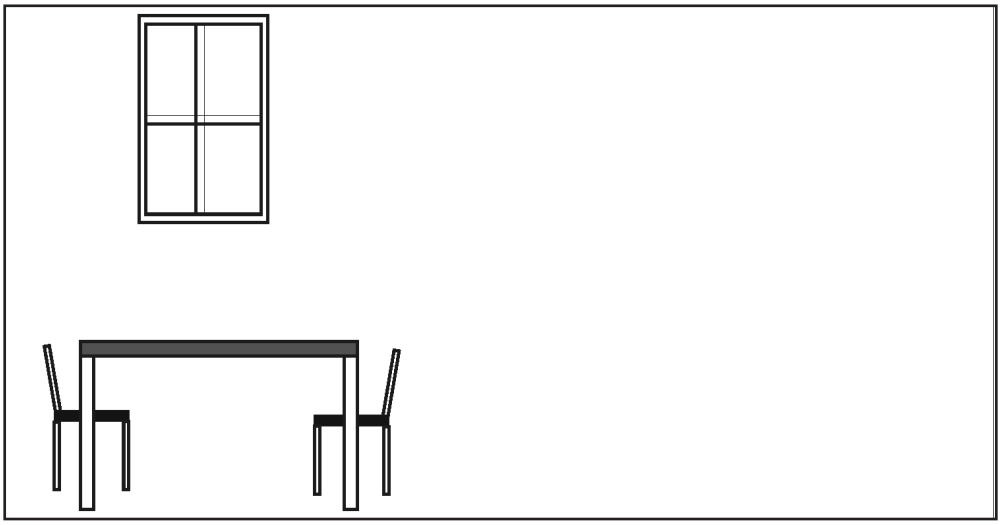
"Jenny"—art by Savannah, age 8, Louisville, KY



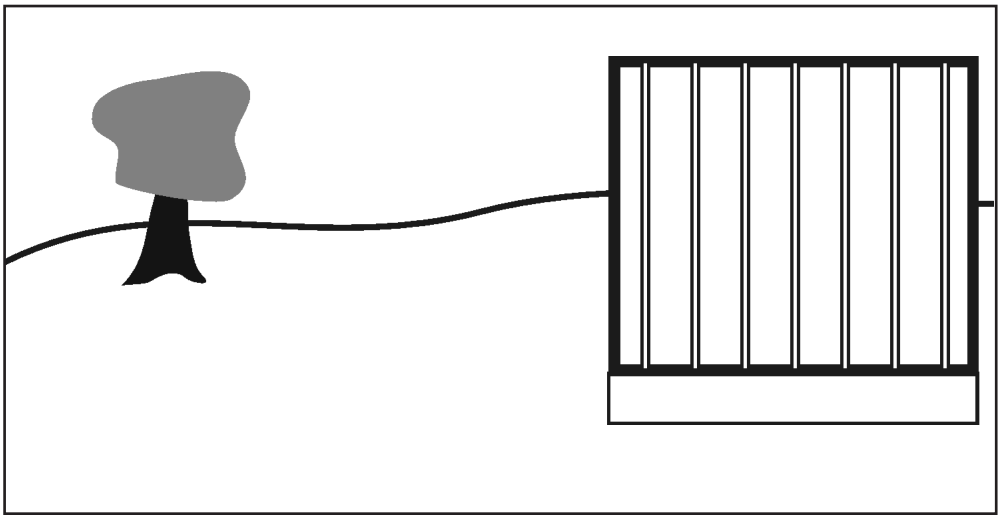
MY EYE JOURNAL

Hi! My name is Jenny. I'm going to help you learn about your eyes.

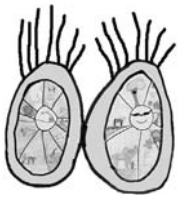
Now close your eyes and pretend you can't see. Just think what your eyes do for you! Draw what your eyes do for you at—

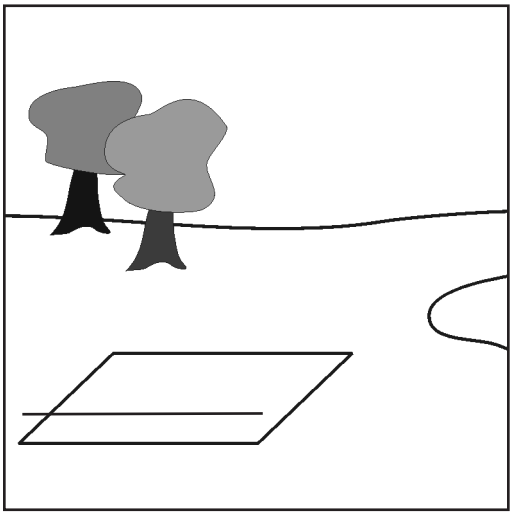


Home



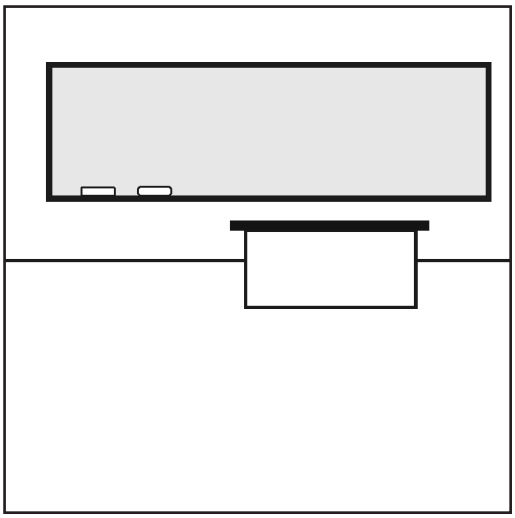
The Zoo





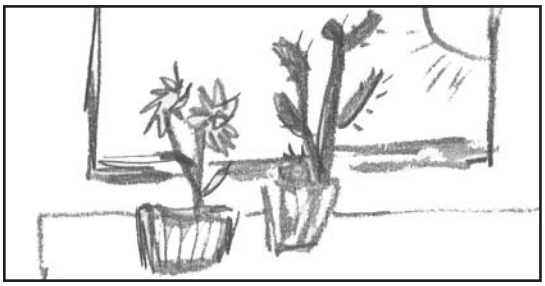
The Park

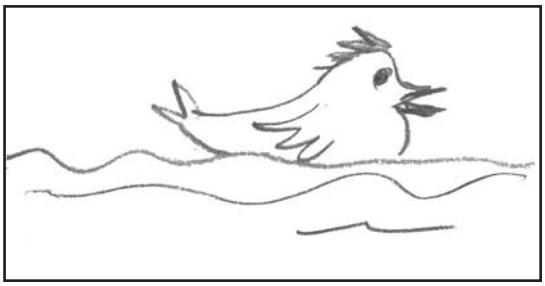
School

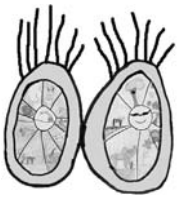


My favorite place

I keep a vision journal. I draw pictures of things I like to see each day. You try it. Put your favorites on the refrigerator to share with your family.

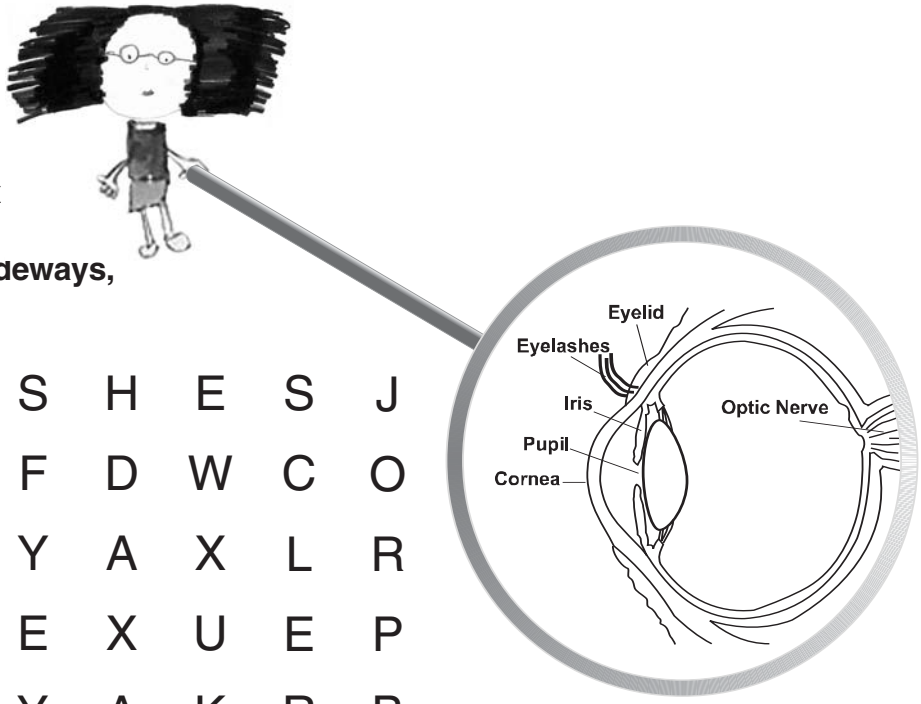






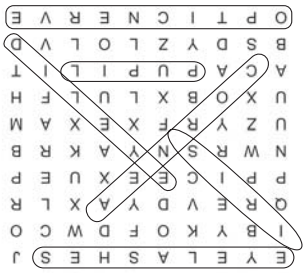
ALL THE EYE CAN SEE

Do you know that your eye has many parts? Come look at this. Here are the names of each part. Can you find the words in the box below? Remember, use your eyes to look up and down, sideways, and along the diagonals.

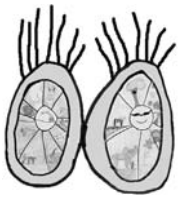


E	Y	E	L	A	S	H	E	S	J
I	B	Y	K	O	F	D	W	C	O
Q	R	E	V	D	Y	A	X	L	R
P	P	I	C	E	E	X	U	E	P
N	W	R	S	N	Y	A	K	R	B
U	Z	Y	R	F	X	E	X	A	M
U	X	O	B	X	L	U	L	F	H
A	C	A	P	U	P	I	L	I	T
B	S	D	Y	Z	L	O	L	V	D
O	P	T	I	C	N	E	R	V	E

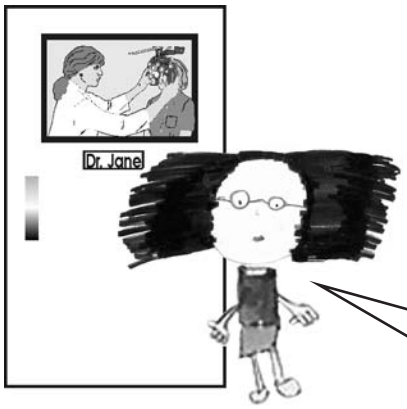
Look in the mirror. Try to name all the parts of your eye. Draw a picture of your eye. Look at the picture and name all the parts of the eye that you can remember.



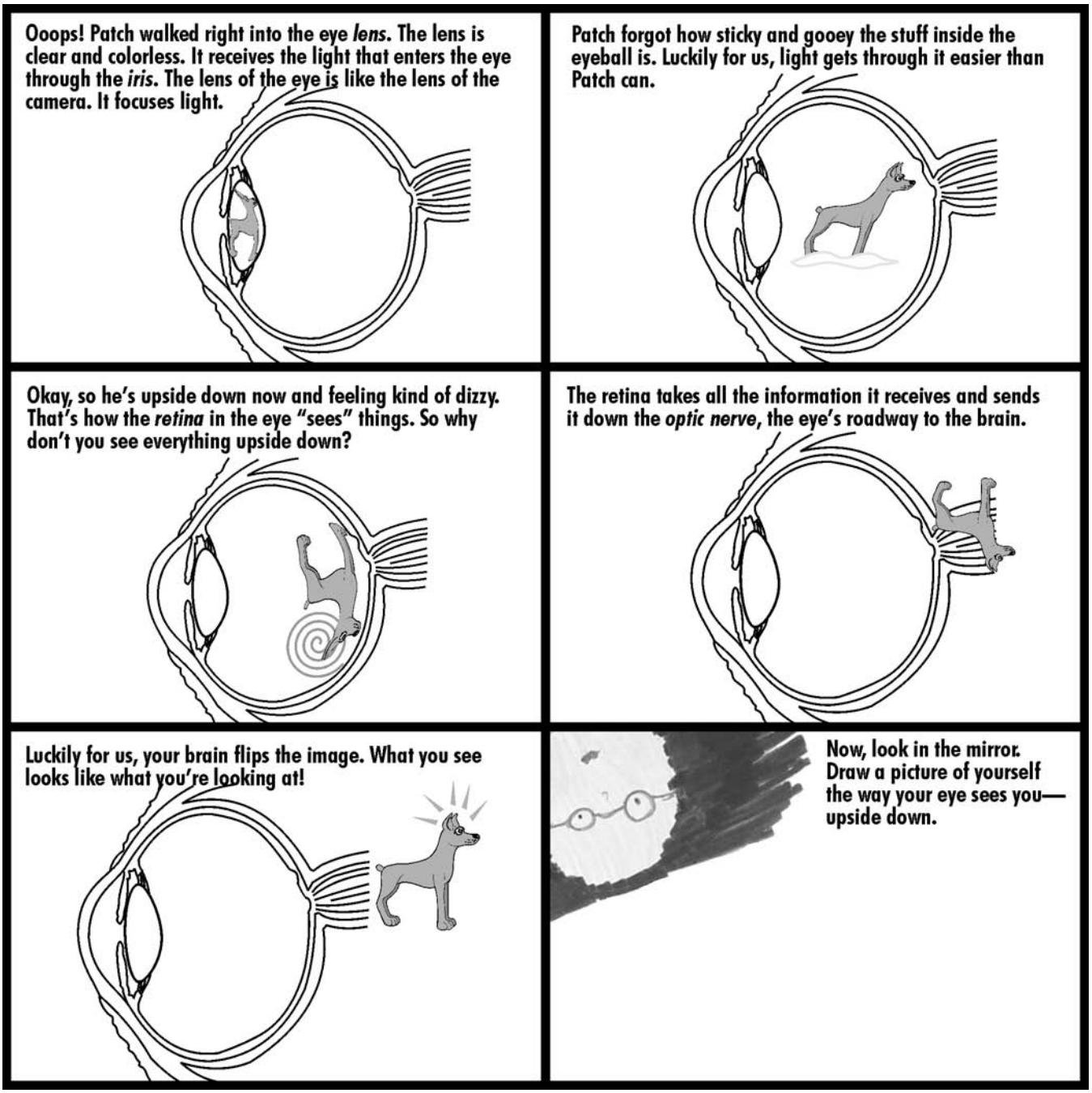
ANSWER

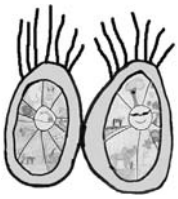


THE UNSEEN EYE SEES

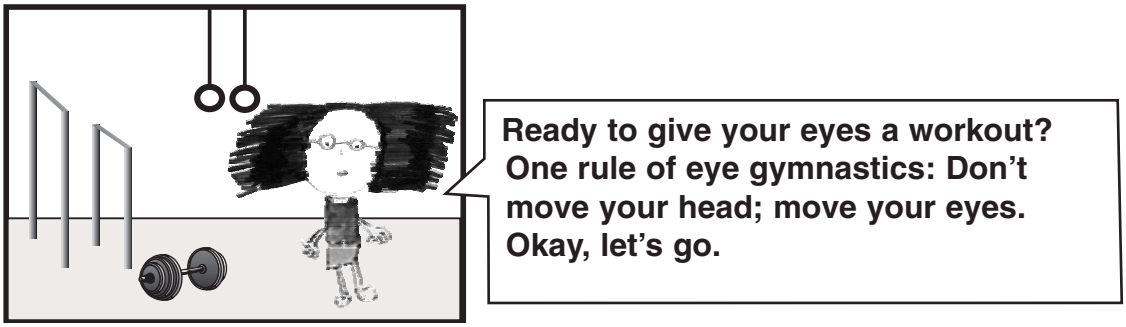


You can't see inside your eye, but a doctor can. My dog Patch will take a walk through the eye and show you how your eyes help you see.





UP, DOWN, BLINK, STRETCH... EYE GYMNASTICS



Look up, down, to the left, to the right, and make a circle to the left. Repeat. Up, down, left, right, and circle to the right. Repeat.

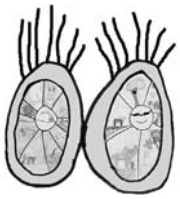
You're exercising the muscles that control eye movement.

But there's more to eye gymnastics than movement. You have to change how you look at an object, too. Now, try this:

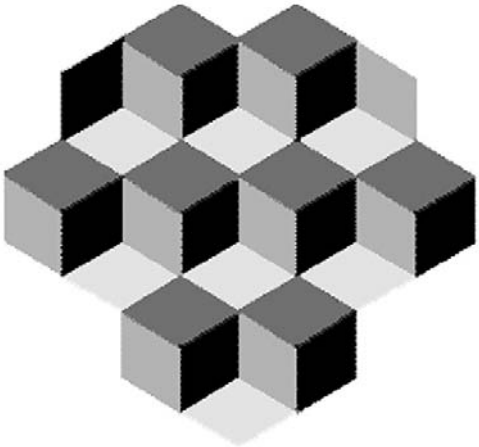
Look at a far-away object. Now, bring your two pointer fingers together right in front of your eyes. You should see a "floating hot dog." It looks something like this:

Now, separate your fingers and keep focusing on that distant object. Wiggle your fingers. You'll see that hot dog dance. This is called parallel viewing—looking **through** an object, not ***at*** it. This exercises your very tiny *intraocular* (inside-the-eye) eye muscles.
Cross-viewing exercises these muscles, too. Try this: Look at the two dots below.

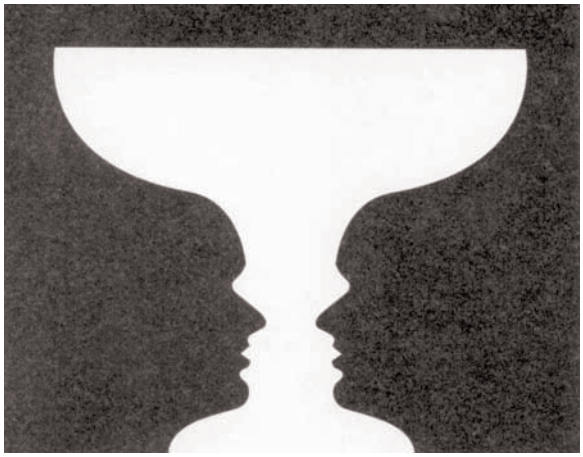
Hold up your pointer finger about six inches from your face. Make sure your finger is right between the dots. Now, instead of focusing on the dots, focus on your finger. You should see four dots now. Slowly move your finger toward the dots, still focusing. The four dots will soon seem to be three dots. If you look at this just right, that "center" dot will look like it's jumping off the paper. It's in 3-D, just like our floating hot dog.



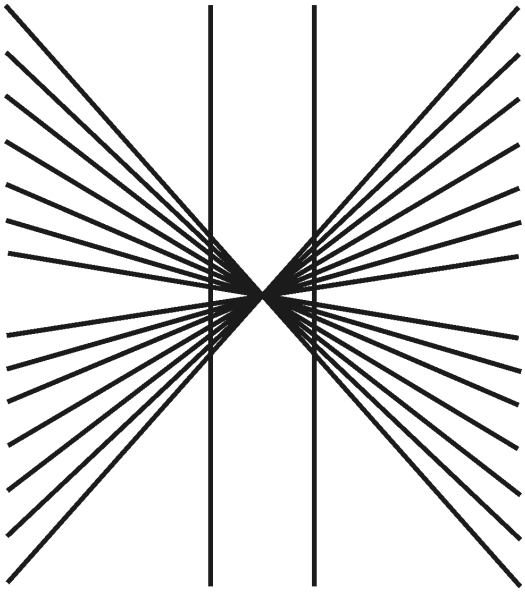
Here are some pictures that might give you a problem. It all depends on how you focus.



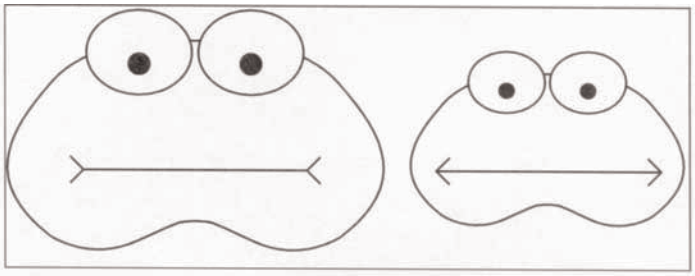
How many cubes can you find—7 or 8?



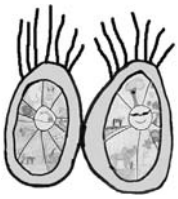
Do you see a vase or do you see two faces looking at each other? Can you see both?



Are the up-and-down lines straight or bent? Use a ruler to check.



Which frog has a bigger mouth? Measure to be sure.



GET BOTH EYES WORKING

Want to know why some kids wear an eye patch? First, you'll have to learn two really big words: amblyopia (say: am-blee-OH-pee-uh) and strabismus (say: struh-BIZ-mus).

Amblyopia is often called "lazy eye." Strabismus may be called "crossed eyes." If you have either of these problems, you should go to an eye doctor, either an ophthalmologist (say: off-thuh-MAH-luh-gist) or an optometrist (say: op-TAH-muh-trist).

If amblyopia and strabismus are treated when you're young, they won't be bigger problems later. Doctors can put a patch or eyedrops on the stronger eye. That way you have to use the weaker eye, making it stronger.

How difficult it is to use only one eye? Find out. All you need is a friend or two and a small ball.

Play a game of toss. First with both eyes, then with one eye covered with a patch.

Record your catches in the chart below.

Name	Number of Throws	Catches, Both Eyes	Catches, One Eye

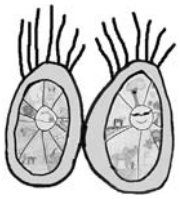
Was it easier to catch the ball using both eyes? Do you know why?

We want our eyes to work together! We have problems knowing how far away an object is when we use just one eye.

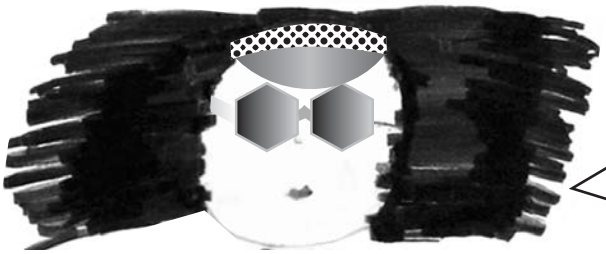
Some people can't see well. For them, it's like wearing dark glasses all the time.

Try this: Rub petroleum jelly on a pair of sunglasses. Now try reading, pouring water from a pitcher into a cup, making a paper clip chain, signing your name, or making a paper airplane.

Everyday tasks are harder when you can't see well. Take care of your vision.



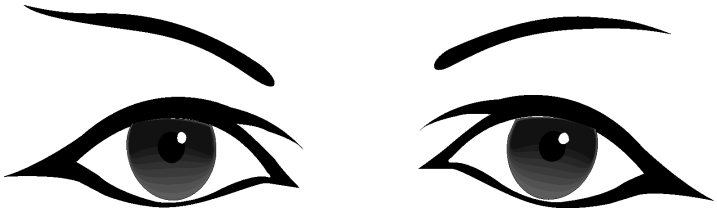
YOUR EYES AND THE SUN



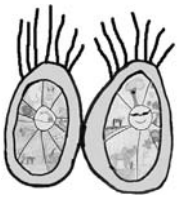
I bet you think that I look really cool in my new sunglasses and visor. Well, actually, I'm going to look really smart. I'll be protecting my eyes from the sun's harmful UV (ultraviolet) rays.

Our eyes have some natural protection. But if you're going to be out in sunshine, putting on the right “shades” is important. Be sure to look for sunglasses that block almost all of the UV rays. Standard sunglasses block only a little more than half. Always remember this: never stare at or look right into the sun. It can harm your eyes.

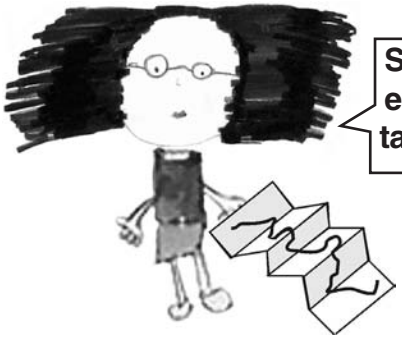
Try designing the greatest sun blockers ever. Remember, protection is the key word here!



Did you know? You don't have to look at the sun to hurt your eyes. UV rays are stronger in sunlight reflected off sand, water, and snow.



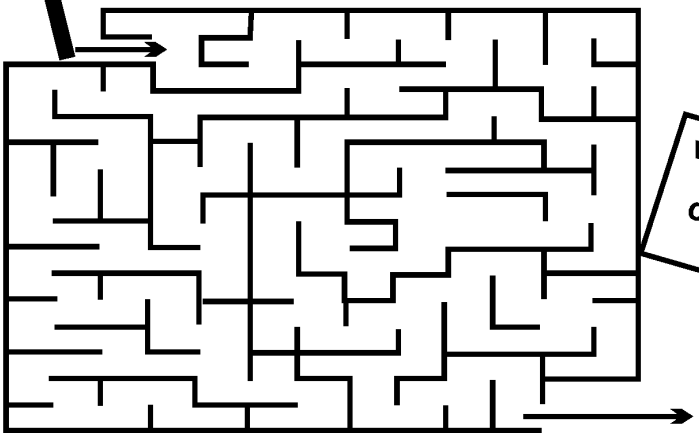
OUR A-MAZING EYES



So many things can happen to our eyes. Be careful and be ready to take care of them.

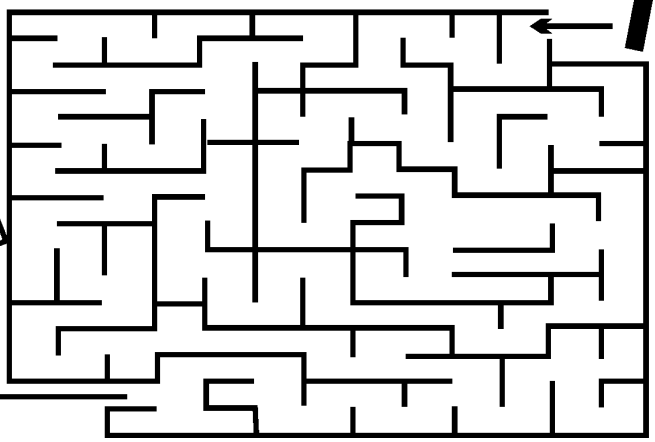
For each problem, follow the maze to the right solution.

If you get sand or dust in your eye

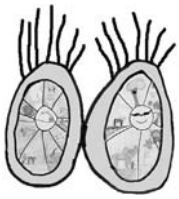


wash your eye with water to clean out the sand.

If you get hit by a ball or fist

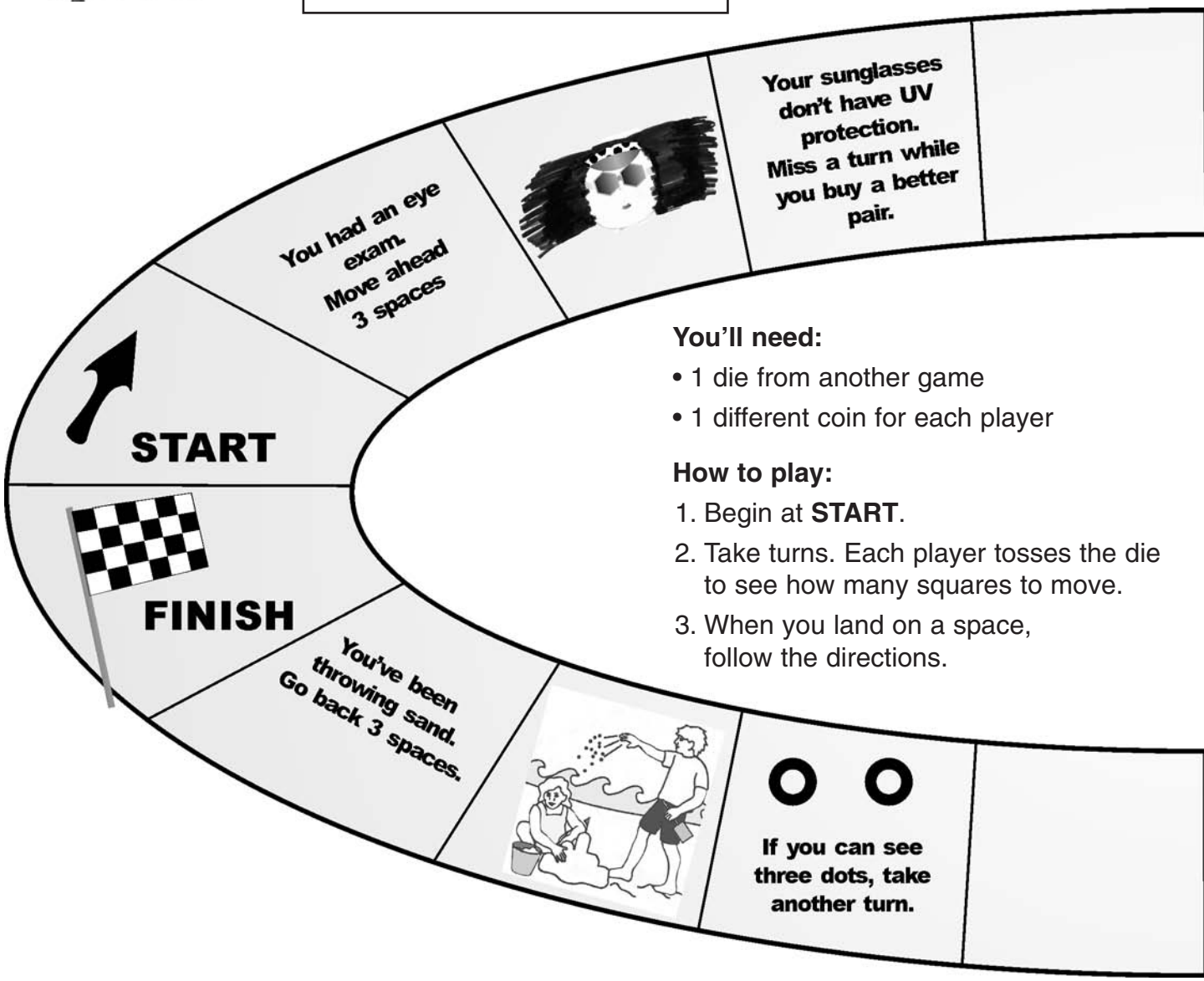


put a cold cloth on your eye for 15 minutes and go to the doctor.



BE A WINNER WITH EYE SAFETY

Okay, you've learned a lot about your eyes. Now follow that information to get to the FINISH LINE safely.

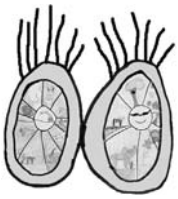


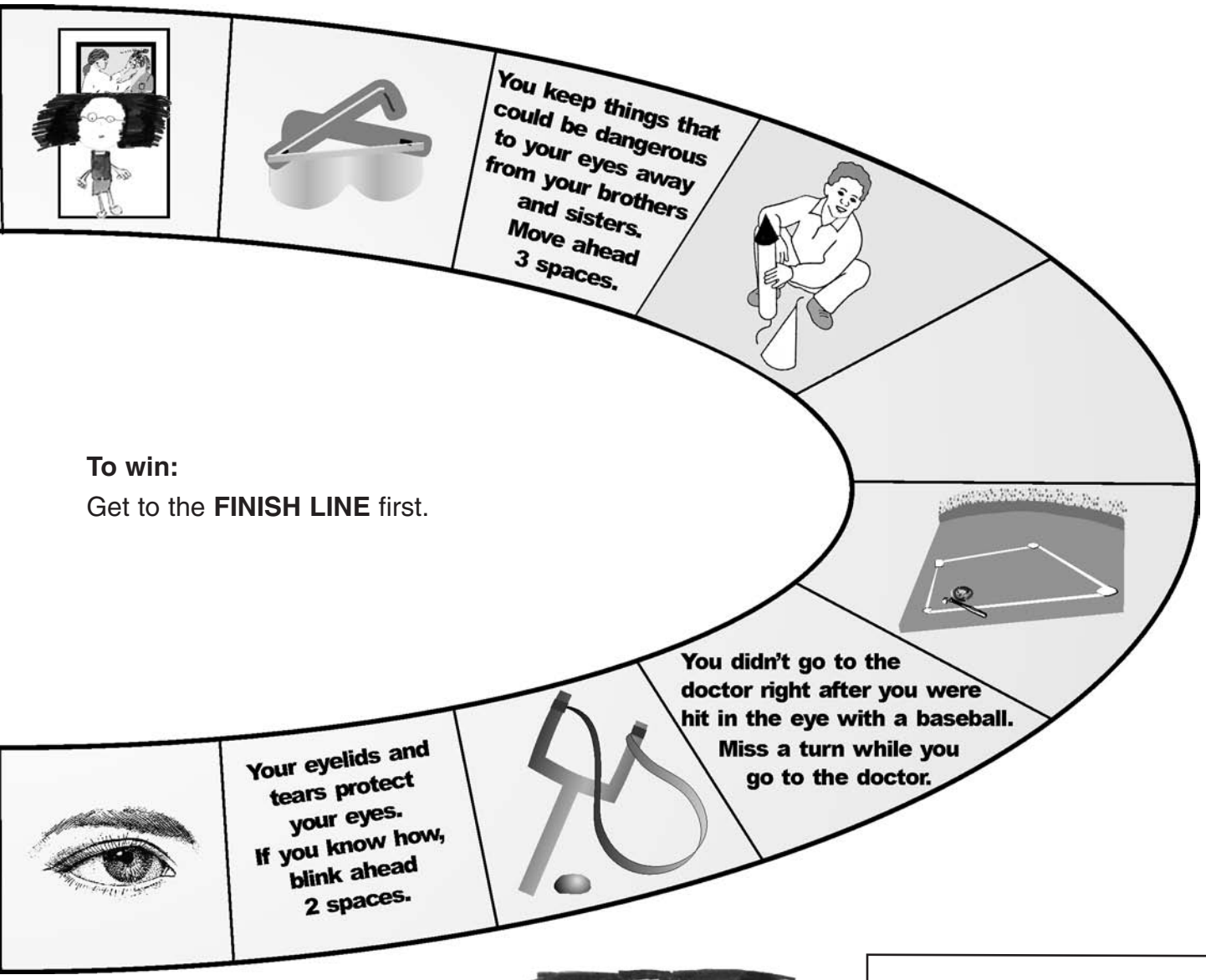
You'll need:

- 1 die from another game
- 1 different coin for each player

How to play:

1. Begin at **START**.
2. Take turns. Each player tosses the die to see how many squares to move.
3. When you land on a space, follow the directions.

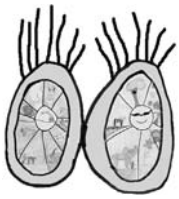




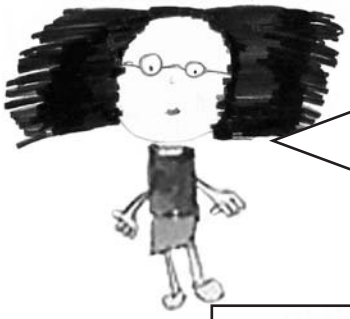
To win:

Get to the **FINISH LINE** first.

Remember: You're always a winner when you follow the rules for eye health and safety!

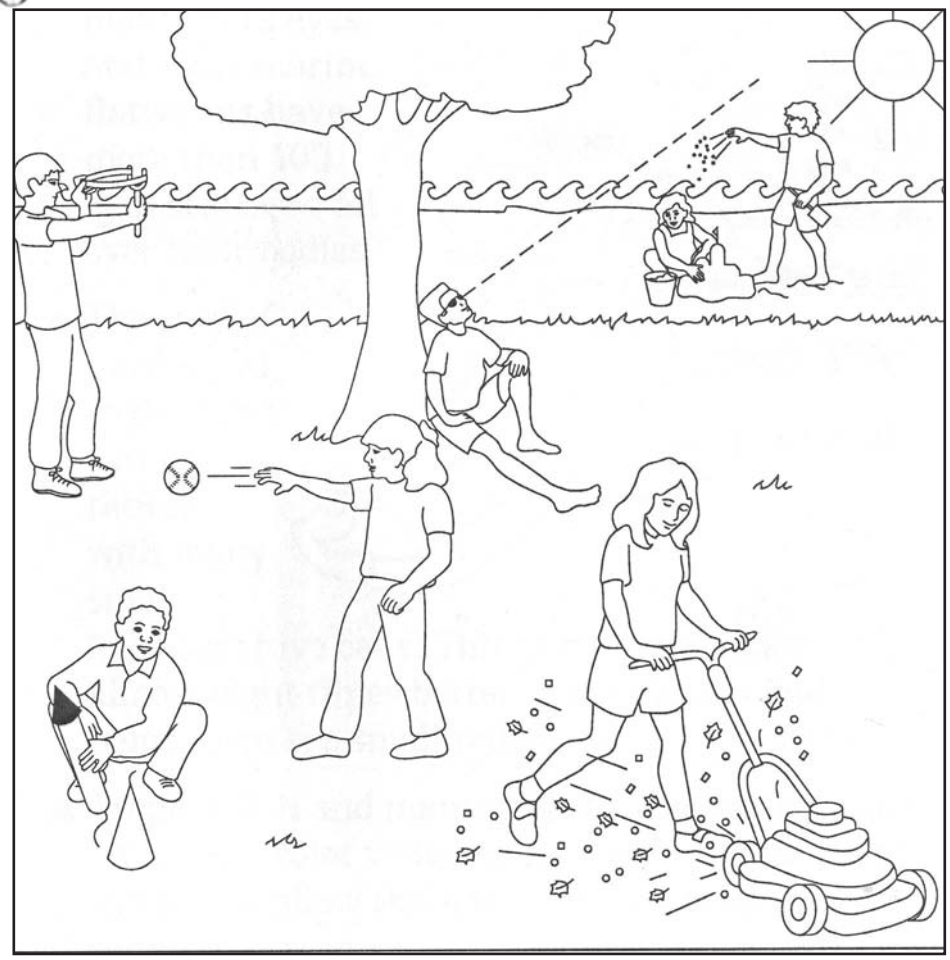


PLAY IT SAFE!



Eye injuries are the leading cause of blindness in children in the United States. If we just think ahead, most of these injuries can be prevented.

What's wrong with this picture? Circle all of the actions that could be dangerous to your eyes. What would you tell each kid in the picture?



Try this: Draw a design for the ultimate protective goggles. Remember, safety first—fashion last!

Answers: Never mow the lawn without protective goggles. Slingshots and fireworks are very dangerous. Don't throw a ball over someone's head; it could accidentally hit the person. Don't look into the sun, even if you're wearing sunglasses. Throwing sand is always dangerous.