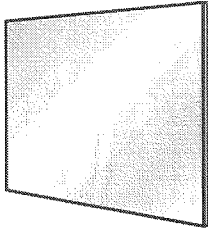


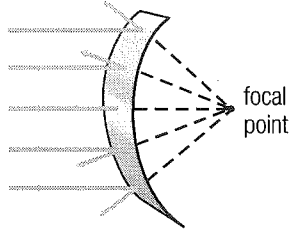
Use with textbook pages 182–186.

Mirrors

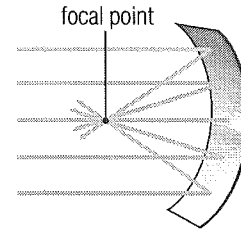
Examine these diagrams. Then fill in the chart.



plane mirror



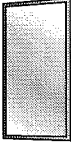
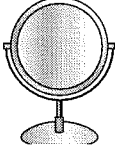


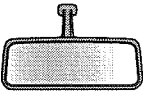
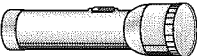

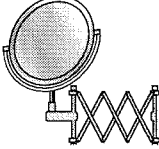


convex mirror



concave mirror

On the first line, identify whether the mirror is plane, convex, or concave.





On the second and third lines, briefly explain how the mirror is used to see images.

<p>1. full-length bedroom mirror</p>  <p>plane mirror - see yourself</p>	<p>6. jeweller's mirror</p>  <p>Concave - enlarges small jewellery</p>
<p>2. make-up mirror</p>  <p>Concave mirror - enlarges your face!</p>	<p>7. car side-view mirror</p>  <p>Convex - widens area for driver to see</p>
<p>3. car rear-view mirror</p>  <p>Convex mirror - increases the field of view</p>	<p>8. mirror in flashlight</p>  <p>Concave - widens light projection area</p>
<p>4. dental mirror</p>  <p>Concave mirror - enlarges teeth</p>	<p>9. shaving mirror</p>  <p>Concave - enlarges your face</p>
<p>5. store security mirror</p>  <p>Convex - increases field of view</p>	<p>10. surface of a lake</p>  <p>Plane Mirror - can see your reflection</p>

Use with textbook pages 182-186.

Flat mirrors and curved mirrors

Complete the following table describing the three different types of mirrors.

	Plane Mirror	Concave Mirror (object near to mirror)	Concave Mirror (object far from mirror)	Convex Mirror
Is the reflecting surface of the mirror flat, curved inward, or curved outward?	flat	curved inward	curved inward	curved outward
Is the image smaller, larger, or the same size as the object?	same size	Larger	Smaller	smaller
Is the image upright or upside down?	upright	upright	upside down	upright
Is the image the same shape as the object?	same	different	different	different
Does the image seem to be behind the mirror or in front of the mirror?	behind	behind	in front	behind
Draw and label one example of how this type of mirror might be used.	 ex. mirror on wall.	 ex. make-up mirror	 ex. flashlight	 ex. security mirror

Use with textbook pages 182-186.

Mirror, mirror, on the wall

Vocabulary

behind	images
concave mirror	in front
converging	plane mirror
convex mirror	reflect
diverging	upright
focal point	upside down

Use the terms in the vocabulary box to fill in the blanks. Use each term only once. You will not need to use every term.

- All mirrors reflect light.
- There are three types of mirrors. All three types reflect light rays to form images.
- A plane mirror is a mirror that is flat and smooth. It produces an image that is the same as the object and appears to be the same distance from the mirror as the object.
- A concave mirror is a mirror that curves inward. The image formed by this type of mirror depends on how far away the object is from the focal point.
- Light rays that come together at a focal point are described as converging.
- If the object is far from the concave mirror, its image is small and upside down.
- If the object is close to a concave mirror, then the image appears to be larger than the object and is upright.
- A convex mirror is a mirror that curves outwards. It reflects parallel light rays as if they came from a focal point behind the mirror.
- Light rays that spread apart after reflecting are described as diverging.

Name _____

Date _____

Use with textbook pages 182-189.

Using mirrors to form images

Match each Term on the left with the best Descriptor on the right. Each Descriptor may be used only once.

Term	Descriptor
1. <u>A</u> diverging	A. spreading apart
2. <u>B</u> converging	B. coming together
3. <u>E</u> plane mirror	C. curves inwards
4. <u>D</u> convex mirror	D. curves outwards
5. <u>C</u> concave mirror	E. is smooth and flat
	F. point where light rays meet

Circle the letter of the best answer.

6. Which of the following is used to make an image that is the same size as the object?
- A. plane mirror
- B. convex mirror
- C. concave mirror
- D. both concave and convex mirrors
7. What do all three types of mirrors have in common?
- A. they all produce upside down images
- B. they all reflect light rays to form an image
- C. they all reflect light rays so that the rays diverge and do not meet
- D. they all reflect light rays so that the rays converge on a focal point

8. What type of image would you expect to see if you looked at yourself in the bowl of a spoon?

- A. an upright, larger image of yourself
- B. an upright, smaller image of yourself
- C. an upside down, larger image of yourself
- D. an upside down, smaller image of yourself

9. Which of the following mirrors can produce an upright image?

I.	plane mirror
II.	convex mirror
III.	concave mirror

- A. I and II only
- B. I and III only
- C. II and III only
- D. I, II, and III

10. Which of the following mirrors can be used to make you look taller?

- A. plane mirror
- B. convex mirror
- C. concave mirror
- D. both convex and concave mirrors

11. Which of the following statements is **incorrect** about a plane mirror?

- A. It reverses left and right.
- B. It produces an image in front of the mirror.
- C. It produces an image that is the same size as the object.
- D. It produces an image that appears to be the same distance from the mirror as the object.