Name: _____ Date: _____

Why AMBULANCE Is Spelled Backward on the Hood

Circle group

Look at an ambulance in your car's mirror. The word on its front looks normal. But if you see the ambulance head on, the letters look backward. Why paint a word that way?

The answer is how mirrors work. A mirror has a smooth, shiny surface. Light bounces off it in an orderly way. It makes a picture of what is in front of it. Scientists call this bounce reflection.

A mirror does not really swap left and right. It flips the picture front to back, like a glove turned inside out. So the letters that face the mirror come out reversed. The first letter you see in the mirror is the last one on the vehicle.

Try this. Write your name on paper. Hold the paper up to a mirror. The writing looks backward. A page of a book is hard to read in a mirror, too.

Ambulance makers want the driver ahead to read the word easily in the mirror. So they paint it backward. The mirror reverses it, and it looks right. The driver knows to move aside fast.

Questions

1. What does the word on an ambulance look like in a car's mirror?

_____

_____

2. What is reflection?

_____

_____

3. What kind of surface does a mirror have?

_____

_____

4. Which letter do you see first in the mirror?

_____

_____

5. Why is the word painted backward on the hood?

_____

_____

6. What can you do with your name to see mirror reversing?

_____

_____

Words to know

reflection: the bouncing of light off a surface
reversed: turned around so it faces the other way
surface: the outside or top part of something
orderly: neat and in a regular pattern

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Why AMBULANCE Is Spelled Backward on the Hood

Triangle group

If you see an ambulance in your car's mirror, the word on its front looks normal. But if you see the ambulance head on, the letters seem to be written backward. Why would anyone paint a word that way?

The answer lies in how mirrors work. A mirror has a smooth, shiny surface. Light that hits it bounces off in an orderly way, so that it makes a picture of whatever is in front of it. Scientists call this bounce reflection.

A mirror does not really swap left and right. What it does is flip the picture front to back, like a glove turned inside out. Because of this, the letters that face the mirror come out reversed. The first letter you see in the mirror is the last one on the vehicle.

Try writing your name on a piece of paper, then hold the paper up to a mirror. The writing will look backward. Now try holding a page of a book to the mirror. It will be hard to read, too.

Ambulance makers want the driver ahead to read the word easily in the rear-view mirror. So they paint the word backward on the hood. The mirror reverses it, and the word looks right. That lets the driver know to move aside quickly.

Questions

1. What does the word on an ambulance look like in a car's mirror?

_____

_____

2. What is reflection?

_____

_____

3. What kind of surface does a mirror have?

_____

_____

4. Which letter of the word do you see first in the mirror?

_____

_____

5. Why is the word painted backward on the hood?

_____

_____

6. What could you do with your own name to see mirror reversing?

_____

_____

Words to know

reflection: the bouncing of light off a surface
reversed: turned around so it faces the other way
surface: the outside or top part of something
orderly: neat and in a regular pattern

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Why AMBULANCE Is Spelled Backward on the Hood

Square group

If an ambulance appears in your car's rear-view mirror, the word printed across its front looks perfectly normal. Yet when the same ambulance is seen head on, the letters seem to have been written backward. Why would anyone paint a word that way?

The answer lies in the way mirrors work. A mirror has a smooth, shiny surface, and light striking it bounces off in a regular, orderly pattern, which produces a picture of whatever stands in front of it. Scientists call this bouncing of light reflection.

A mirror does not truly swap left and right. Instead, it flips the picture from front to back, rather like a glove turned inside out. As a result, the letters that face the mirror come out reversed, and the first letter you notice in the mirror is actually the last one on the vehicle.

Try writing your name on a sheet of paper and holding it up to a mirror, and the writing will look backward. A page from a book is awkward to read in a mirror as well.

Ambulance makers want the driver ahead to read the word easily in the rear-view mirror, so they paint it backward on the hood. The mirror reverses it, the word appears correct, and the driver understands that it is time to move aside quickly.

Questions

1. How does the word on an ambulance look in a car's rear-view mirror?

_____

_____

2. What name do scientists give to the bouncing of light off a surface?

_____

_____

3. What sort of surface does a mirror have?

_____

_____

4. Which letter of the word do you notice first in the mirror?

_____

_____

5. Why is the word painted backward on the hood?

_____

_____

6. How could you use your own name to see mirror reversing?

_____

_____

Words to know

reflection: the bouncing of light off a surface
reversed: turned around so it faces the other way
surface: the outside or top part of something
orderly: neat and in a regular pattern

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: Why AMBULANCE Is Spelled Backward on the Hood

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: Why AMBULANCE Is Spelled Backward on the Hood

Easier · 182 words · Flesch-Kincaid grade 2.7

1. It looks normal.
2. The bounce of light off a smooth, shiny surface.
3. A smooth, shiny one.
4. The last one on the vehicle.
5. The mirror reverses it, so the driver ahead can read it easily.
6. Write it on paper and hold it up to a mirror.

Triangle: Why AMBULANCE Is Spelled Backward on the Hood

This passage · 216 words · Flesch-Kincaid grade 3.9

1. It looks normal.
2. The bounce of light off a smooth, shiny surface.
3. A smooth, shiny one.
4. The last one on the vehicle.
5. The mirror reverses it, so the driver ahead can read it easily.
6. Write it on paper and hold the paper up to a mirror.

Square: Why AMBULANCE Is Spelled Backward on the Hood

Harder · 222 words · Flesch-Kincaid grade 7.2

1. It looks perfectly normal.
2. Reflection.
3. A smooth, shiny one.
4. The last one on the vehicle.
5. The mirror reverses it, so the driver ahead can read it easily and move aside.
6. Write it on paper and hold the paper up to a mirror.