Name: _____ Date: _____

Rings of Light Around the Moon

Circle group

On some nights, a bright circle of pale light shows up around the moon. It is called a halo. For hundreds of years, people have used it as a sign of weather. Is it true that a ring around the moon means rain is on the way?

Ice makes the halo. High in the sky, about as high as jet planes fly, the air is very cold. Thin, wispy clouds called cirrus clouds form there. They are made of tiny six-sided ice crystals, not water drops.

When moonlight goes into a crystal, it bends. It comes out at a different angle, like light in a glass prism. Billions of crystals bend light the same way. Together they make a ring that is always the same size in the sky. You never see a halo that is tiny or huge.

Cirrus clouds often come before a big weather system. After they arrive, the sky may turn cloudy or wet in a day or so. So the old saying is not always right, but it is a fair clue. A halo can also show up around the sun. Never stare at the sun.

Questions

1. What makes a halo around the moon?

_____

_____

2. What are the high, wispy clouds called?

_____

_____

3. What shape are the ice crystals?

_____

_____

4. Why is a halo always the same size?

_____

_____

5. Why is a halo a fair clue that the weather may change?

_____

_____

6. What safety rule does the passage give?

_____

_____

Words to know

halo: a ring of light around something bright
cirrus: high, thin clouds that look like wisps of hair
crystals: tiny solid pieces with flat sides and sharp edges
prism: a clear block of glass that bends light
wispy: thin and light, like a faint thread

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: _____

Rings of Light Around the Moon

Triangle group

On some nights, a bright circle of pale light appears around the moon. It is called a halo, and for hundreds of years, people have used it as a sign about the weather. Is there truth in the old saying that a ring around the moon means rain is on the way?

The halo is made by ice. High in the sky, about as far up as jet planes fly, the air is very cold. There, thin, wispy clouds called cirrus clouds form. They are made of tiny six-sided ice crystals instead of water drops.

When moonlight enters one of these crystals, it bends. The light comes out at a slightly different angle, a bit like light passing through a glass prism. Billions of crystals bend light in the same way, and together they paint a ring that is always the same size in the sky. You will never see a halo that is tiny or huge.

Cirrus clouds often come ahead of a large weather system. When one arrives, the sky may be cloudy or wet within a day or so. So the old saying is not always right, but it is often a fair clue. A halo can also appear around the sun, but you should never stare at the sun.

Questions

1. What causes a halo around the moon?

_____

_____

2. What are the high, wispy clouds called?

_____

_____

3. What shape do the ice crystals have?

_____

_____

4. Why is a halo always the same size?

_____

_____

5. Why is a halo a fair clue that weather may change?

_____

_____

6. What safety advice does the passage give?

_____

_____

Words to know

halo: a ring of light around something bright
cirrus: high, thin clouds that look like wisps of hair
crystals: tiny solid pieces with flat sides and sharp edges
prism: a clear block of glass that bends light
wispy: thin and light, like a faint thread

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: _____

Rings of Light Around the Moon

Square group

On certain nights, a luminous circle of pale light appears around the moon. It is known as a halo, and for hundreds of years, people have treated it as a sign of coming weather. Is there any truth in the old saying that a ring around the moon means rain is on the way?

The halo is created by ice. High in the sky, at roughly the altitude where jet planes cruise, the air is bitterly cold. There, thin, wispy cirrus clouds form, and they consist of tiny six-sided ice crystals rather than liquid water drops.

When moonlight enters one of these crystals, it bends. The light emerges at a slightly different angle, much like light passing through a glass prism. Billions of crystals bend the light in the same way, and together they paint a ring that always has the same size in the sky. You will never see a halo that is tiny or enormous.

Cirrus clouds frequently arrive ahead of a large weather system. Once one reaches you, the sky may turn cloudy or wet within a day or so. Therefore, the old saying is not always correct, but it is often a reasonable clue. A halo can also appear around the sun, but you should never stare at the sun.

Questions

1. What causes a halo to appear around the moon?

_____

_____

2. What name is given to the high, wispy clouds?

_____

_____

3. What shape do the ice crystals have?

_____

_____

4. Why does a halo always have the same size?

_____

_____

5. Why is a halo a reasonable clue that the weather may change?

_____

_____

6. What safety advice does the passage offer?

_____

_____

Words to know

halo: a ring of light around something bright
cirrus: high, thin clouds that look like wisps of hair
crystals: tiny solid pieces with flat sides and sharp edges
prism: a clear block of glass that bends light
wispy: thin and light, like a faint thread

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: Rings of Light Around the Moon

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

Circle: Rings of Light Around the Moon

Easier · 192 words · Flesch-Kincaid grade 3.3

1. Light bending in tiny ice crystals in high clouds.
2. Cirrus clouds.
3. Six-sided.
4. All the crystals bend light at the same angle.
5. Cirrus clouds often come before a big weather system.
6. Never stare at the sun.

Triangle: Rings of Light Around the Moon

This passage · 214 words · Flesch-Kincaid grade 4.8

1. Light bending through tiny ice crystals in high clouds.
2. Cirrus clouds.
3. Six-sided.
4. The crystals all bend light at the same angle.
5. Cirrus clouds often arrive before a big weather system.
6. Never stare at the sun.

Square: Rings of Light Around the Moon

Harder · 215 words · Flesch-Kincaid grade 6.5

1. Light bending as it passes through tiny ice crystals in high clouds.
2. Cirrus clouds.
3. Six-sided.
4. All of the crystals bend light at the same angle.
5. Cirrus clouds often arrive ahead of a large weather system.
6. Never stare at the sun.