Name: _____ Date: _____

Cool Dark Spots on the Sun

Circle group

The Sun looks like a bright, smooth ball. But scientists use special tools to look at it. They can see dark spots. These are called sunspots.

A sunspot looks dark because it is cooler than the gas around it. It is still very hot. It just looks dark next to the bright parts. Sunspots come from strong magnets inside the Sun.

Some sunspots are small. Some are bigger than Earth. They do not last forever. A sunspot can fade in a few days. Or it can stay a few weeks.

Sunspots seem to move. A spot slides across the Sun from one side to the other. This is because the Sun slowly turns, as Earth does.

Never look straight at the Sun. It can hurt your eyes. Scientists use filters and cameras made for the job. Then they share the pictures.

Questions

1. What are the dark spots on the Sun called?

_____

_____

2. Why does a sunspot look dark?

_____

_____

3. What makes sunspots?

_____

_____

4. How long can a sunspot last?

_____

_____

5. Why do sunspots seem to slide across the Sun?

_____

_____

6. Why do scientists use filters and cameras?

_____

_____

Words to know

sunspot: a darker, cooler patch on the surface of the Sun
scientists: people who study how the world works
magnets: objects that pull on some metals
filters: special covers that block most of the light
fade: to slowly disappear

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: _____

Cool Dark Spots on the Sun

Triangle group

The Sun looks like a smooth, bright ball. But scientists who study it with special tools can see dark spots on its face. These are called sunspots.

A sunspot is dark because it is cooler than the gas around it. It is still very hot. It just looks dark next to the brighter, hotter parts. Sunspots are caused by strong pulls from magnets deep inside the Sun.

Some sunspots are small. Others are bigger than our whole planet. They do not last forever. A sunspot may fade away after a few days, or it may stay for a few weeks.

Sunspots also seem to move. Over many days, a spot slides across the face of the Sun from one side to the other. This happens because the Sun slowly turns, just as Earth does.

Remember, you should never look straight at the Sun. It can hurt your eyes. Scientists use filters and cameras made for the job, and they share the pictures with everyone.

Questions

1. What are the dark spots on the Sun called?

_____

_____

2. Why does a sunspot look dark?

_____

_____

3. What causes sunspots?

_____

_____

4. How long might a sunspot last?

_____

_____

5. Why do sunspots seem to slide across the Sun?

_____

_____

6. Why do scientists use filters and cameras to study the Sun?

_____

_____

Words to know

sunspot: a darker, cooler patch on the surface of the Sun
scientists: people who study how the world works
magnets: objects that pull on some metals
filters: special covers that block most of the light
fade: to slowly disappear

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: _____

Cool Dark Spots on the Sun

Square group

To the naked eye, the Sun appears to be a smooth, dazzling ball. Yet scientists who observe it with specially designed instruments can make out dark blemishes on its face. These patches are known as sunspots.

A sunspot appears dark because it is cooler than the gas surrounding it. It is still extremely hot; it simply looks dim in comparison with the brighter, hotter regions nearby. Sunspots are produced by powerful magnetic forces deep inside the Sun.

Some sunspots are quite small, while others are larger than our entire planet. None of them lasts forever. A sunspot may fade away after only a few days, or it may remain for several weeks.

Sunspots also appear to travel. Over many days, a single spot slides across the face of the Sun from one edge to the other, because the Sun slowly rotates, just as Earth does.

Remember that you should never look directly at the Sun, since it can seriously harm your eyes. Scientists rely on filters and cameras built for the purpose, and they share the pictures with everyone.

Questions

1. What are the dark patches on the Sun called?

_____

_____

2. Why does a sunspot appear dark?

_____

_____

3. What produces sunspots?

_____

_____

4. How long might a sunspot remain?

_____

_____

5. Why do sunspots appear to travel across the Sun?

_____

_____

6. Why do scientists use filters and special cameras to study the Sun?

_____

_____

Words to know

sunspot: a darker, cooler patch on the surface of the Sun
scientists: people who study how the world works
filters: special covers that block most of the light
fade: to slowly disappear

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: Cool Dark Spots on the Sun

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

Circle: Cool Dark Spots on the Sun

Easier · 141 words · Flesch-Kincaid grade 1.3

1. Sunspots.
2. It is cooler than the gas around it.
3. Strong magnets inside the Sun.
4. A few days or a few weeks.
5. The Sun slowly turns.
6. Looking straight at the Sun can hurt your eyes.

Triangle: Cool Dark Spots on the Sun

This passage · 164 words · Flesch-Kincaid grade 3.1

1. Sunspots.
2. It is cooler than the gas around it.
3. Strong pulls from magnets deep inside the Sun.
4. A few days or a few weeks.
5. The Sun slowly turns.
6. Looking straight at the Sun can hurt your eyes.

Square: Cool Dark Spots on the Sun

Harder · 179 words · Flesch-Kincaid grade 7

1. Sunspots.
2. It is cooler than the gas surrounding it.
3. Powerful magnetic forces deep inside the Sun.
4. A few days or several weeks.
5. The Sun slowly rotates.
6. Looking directly at the Sun can harm your eyes.