Name: _____ Date: _____

The Planetarium Sky Skipped Cassiopeia

Circle group

Tomas worked at the town planetarium. After three weeks, he saw a problem with the evening show. The voice named the Big Dipper and the Swan. But in the north, part of the sky was dark. The stars of Cassiopeia were not there.

He told Mrs. Alvarado, who ran the dome. She frowned. "That is odd," she said. "The show has worked for years."

They opened the projector. It was a heavy metal ball with tiny holes. They shined a flashlight over it. Tomas ran his finger along the north side. He felt a smooth spot where holes should be. A small square of black tape covered them.

"Someone covered the stars on purpose," he whispered.

Mrs. Alvarado peeled off the tape. Under it was a folded note. It was from Mr. Penn, a technician who had retired long ago. He wrote that a bad lamp was burning a bright spot on the dome. He had covered the holes until a new lamp came. The new lamp came, but nobody took off the tape.

They put in a fresh bulb that day. That night, five bright stars made a W across the dome. A girl in the third row gasped.

Questions

1. What was missing from the planetarium show?

_____

_____

2. What did Tomas feel on the north side of the projector?

_____

_____

3. What was under the black tape?

_____

_____

4. Why did Mr. Penn cover the holes?

_____

_____

5. Why did the problem last so long?

_____

_____

6. How can you tell the audience liked the fix?

_____

_____

Words to know

projector: a machine that shines pictures or lights onto a surface
technician: a person who takes care of machines and equipment

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: _____

The Planetarium Sky Skipped Cassiopeia

Triangle group

Tomas had volunteered at the town planetarium for three weeks before he noticed that the evening show had a hole in it. The narrator named the Big Dipper, the Swan, and the Hunter, but when the projector rotated toward the north, the sky above the audience simply went blank where the zigzag of Cassiopeia should have glittered.

He mentioned it to Mrs. Alvarado, who ran the dome, and she frowned in the dim glow of the control panel. "That is odd," she said. "The show has worked for years, and nobody has complained." They opened the projector together, a heavy metal ball covered with tiny holes, and shined a flashlight across its surface.

At first everything looked normal. Then Tomas ran his finger along the north side and felt something smooth where a cluster of holes ought to be. A small square of black tape had been pressed over them, edges carefully trimmed.

"Someone covered the stars on purpose," he whispered.

Mrs. Alvarado peeled the tape away and found a folded scrap of paper stuck underneath. It was a note from a long-retired technician named Mr. Penn, who had written that a bad lamp in that corner was scorching the dome with a bright spot and that he had masked the holes until a replacement arrived. The replacement had come and gone, but nobody had ever removed the tape.

They swapped in a fresh bulb that same afternoon. That night, when the lights went down, a W of five bright stars spread across the dome, and a girl in the third row gasped as if she had seen it for the very first time.

Questions

1. What was missing from the planetarium show?

_____

_____

2. What did Tomas feel on the north side of the projector?

_____

_____

3. What was hidden underneath the black tape?

_____

_____

4. Why had Mr. Penn covered those holes?

_____

_____

5. Why did the problem last for so many years?

_____

_____

6. How can you tell the repair made the audience happy?

_____

_____

Words to know

projector: a machine that shines pictures or lights onto a surface
technician: a person who takes care of machines and equipment
scorching: burning the surface of something with too much heat
masked: covered up so that something cannot be seen

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: _____

The Planetarium Sky Skipped Cassiopeia

Square group

Tomas had volunteered at the town planetarium for three weeks before he noticed that the evening show contained an unexplained gap. The recorded narrator named the Big Dipper, the Swan, and the Hunter in turn, but when the projector rotated toward the north, the sky above the audience went blank in the very place where the zigzag of Cassiopeia ought to have glittered.

He mentioned the problem to Mrs. Alvarado, who managed the dome, and she frowned in the dim glow of the control panel. "That is odd," she said. "The show has worked flawlessly for years, and nobody has ever complained." Together they opened the projector, a heavy metal sphere pierced with thousands of tiny holes, and swept a flashlight slowly across its surface.

At first everything appeared normal. Then Tomas ran his finger along the north side and felt something smooth where a cluster of holes should have been. A small square of black tape had been pressed over them, and its edges had been trimmed with great care.

"Someone covered those stars on purpose," he whispered.

Mrs. Alvarado peeled the tape away and discovered a folded scrap of paper stuck beneath it. The note came from a long-retired technician named Mr. Penn, who explained that a faulty lamp in that corner had been scorching the dome with an intense bright spot and that he had masked the holes until a replacement could arrive. The replacement had come and gone years ago, yet nobody had ever thought to remove the tape.

They installed a fresh bulb that very afternoon. When the lights dimmed that night, a W of five brilliant stars spread across the dome, and a girl in the third row gasped as though she were seeing the sky for the first time.

Questions

1. What was absent from the planetarium show?

_____

_____

2. What did Tomas feel along the north side of the projector?

_____

_____

3. What was concealed beneath the black tape?

_____

_____

4. Why had Mr. Penn masked those particular holes?

_____

_____

5. Why did the problem continue for so many years?

_____

_____

6. What suggests the repair delighted the audience?

_____

_____

Words to know

projector: a machine that shines pictures or lights onto a surface
technician: a person who takes care of machines and equipment
scorching: burning the surface of something with too much heat
masked: covered up so that something cannot be seen

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: The Planetarium Sky Skipped Cassiopeia

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

Circle: The Planetarium Sky Skipped Cassiopeia

Easier · 200 words · Flesch-Kincaid grade 2.3

1. The stars of Cassiopeia, which left a dark spot in the north sky.
2. A smooth spot where holes should have been.
3. A folded note from a retired technician named Mr. Penn.
4. A bad lamp was burning a bright spot on the dome.
5. Nobody took the tape off after the new lamp came, and nobody complained.
6. A girl in the third row gasped when she saw the stars.

Triangle: The Planetarium Sky Skipped Cassiopeia

This passage · 275 words · Flesch-Kincaid grade 7.8

1. The constellation Cassiopeia, which left a blank patch in the north sky.
2. Something smooth where a cluster of holes should have been.
3. A folded note from a retired technician named Mr. Penn.
4. A bad lamp in that corner was scorching the dome with a bright spot.
5. Nobody ever removed the tape after the replacement lamp arrived, and nobody had complained.
6. A girl in the third row gasped as if she had seen the stars for the first time.

Square: The Planetarium Sky Skipped Cassiopeia

Harder · 297 words · Flesch-Kincaid grade 8.6

1. The constellation Cassiopeia, which left a blank patch in the northern sky.
2. Something smooth in the place where a cluster of holes should have been.
3. A folded note written by a retired technician named Mr. Penn.
4. A faulty lamp in that corner was scorching the dome with an intense bright spot.
5. Nobody removed the tape after the replacement lamp arrived, and nobody complained about the gap.
6. A girl in the third row gasped as though she were seeing the sky for the first time.