

Points in the Sky

Observe how star size, brightness, and distance affect what you see.

SC.3.E.5.1 "Explain that stars can be different; some are smaller, some are larger, and some appear brighter than others; all except the Sun are so far away that they look like points of light."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline the sentences that tell how stars can differ in size or brightness. Circle the sentence that explains why almost all stars look like points of light.

Maya Looks Up

- ① On a clear night, Maya looks up from her backyard. She sees many tiny lights in the sky. Most stars are much farther from Earth than the Sun. Because they are so far away, they look like small points of light. The Sun is a star too, but it is close enough to look much larger in our sky.
- ② Stars are not all the same size. Some are smaller than the Sun, and some are larger. A star's true size is not always easy to tell just by looking from Earth. A very large star can still look like a point because it is far away. Scientists use tools and measurements to learn more about stars.
- ③ Maya notices that one point looks brighter than another. A star can appear brighter for more than one reason. It may give off more light, or it may be closer to Earth. Looking brighter does not always mean that the star is larger. Even stars that look bright to us, except the Sun, are far away.

2 ANSWER WITH EVIDENCE Use the passage

1 Why do most stars look like points of light from Earth?

2 How can stars be different in size?

3 What are two reasons a star may appear brighter?

4 Why does a brighter-looking star not always have to be larger?

3 YOUR TURN Your own words

Make a two-panel sky sketch. In Panel 1, draw and label the Sun as a larger circle. In Panel 2, draw three distant stars as points and make one point darker to show that it looks brighter. Write one sentence that explains your sketch.

A rectangular box for drawing Panel 1. It has a dashed horizontal line near the bottom, indicating where to write an explanation.A rectangular box for drawing Panel 2. It has a dashed horizontal line near the bottom, indicating where to write an explanation.

PART 1 • READ AND MARK

Underline the sentences that tell how stars can differ in size or brightness. Circle the sentence that explains why almost all stars look like points of light. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Why do most stars look like points of light from Earth?	Most stars are so far away from Earth that they look like points of light.
2	How can stars be different in size?	Some stars are smaller than the Sun, and some are larger.
3	What are two reasons a star may appear brighter?	It may give off more light, or it may be closer to Earth.
4	Why does a brighter-looking star not always have to be larger?	A star may look brighter because it gives off more light or is closer to Earth. Its brightness does not prove its size.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Panel 1: A large circle labeled Sun. Panel 2: Three points, with one darker point labeled looks brighter. The Sun looks larger because it is closer, and the darker distant point only appears brighter.

Accept sketches that show the Sun larger in one panel and distant stars as points in the other panel, with one distant point shown as brighter. The sentence should connect the Sun's larger appearance to closeness and identify that distant stars can appear to have different brightness.