

Star Sky Cycle

Track a star pattern through one night.

SC.4.E.5.1 "Observe that the patterns of stars in the sky stay the same although they appear to shift across the sky nightly, and different stars can be seen in different seasons."

NAME _____

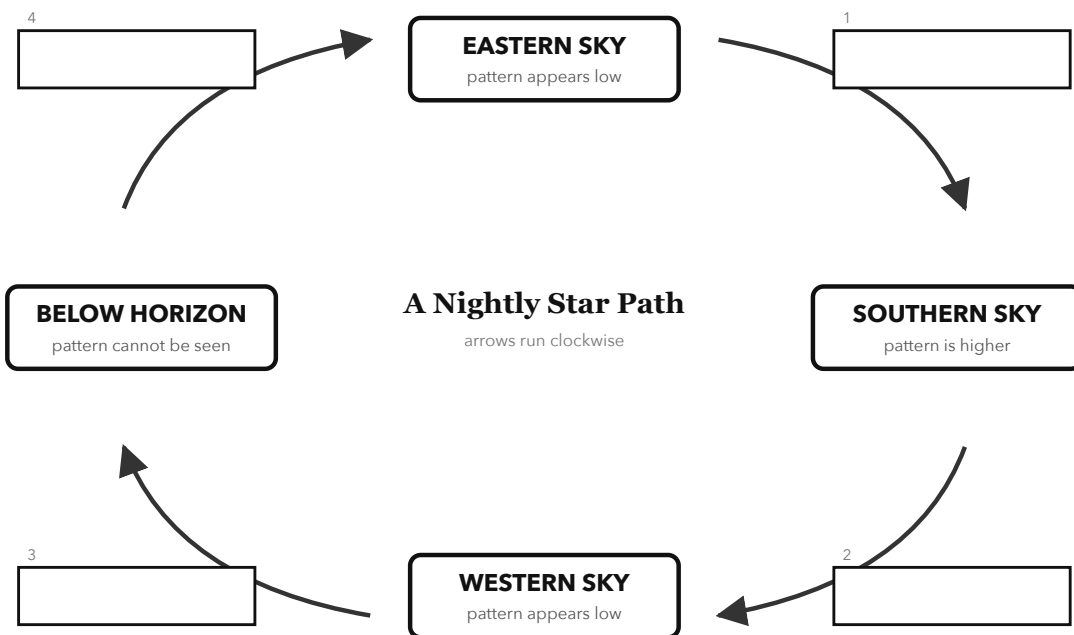
DATE _____

1 LABEL THE MODEL _____ Word bank below

Write one word-bank process in each numbered box. Use the same process more than once if you need it. Some processes are used more than once.

WORD BANK

Earth rotates



2 RUN THE MODEL Use your finished diagram

1 Which stage comes after SOUTHERN SKY in the completed model?

2 What process belongs on every arrow in the model?

3 When a star pattern seems to move from EASTERN SKY to WESTERN SKY, what stays the same?

3 CHECK IT Before you turn it in

☐ I used a process in every box.

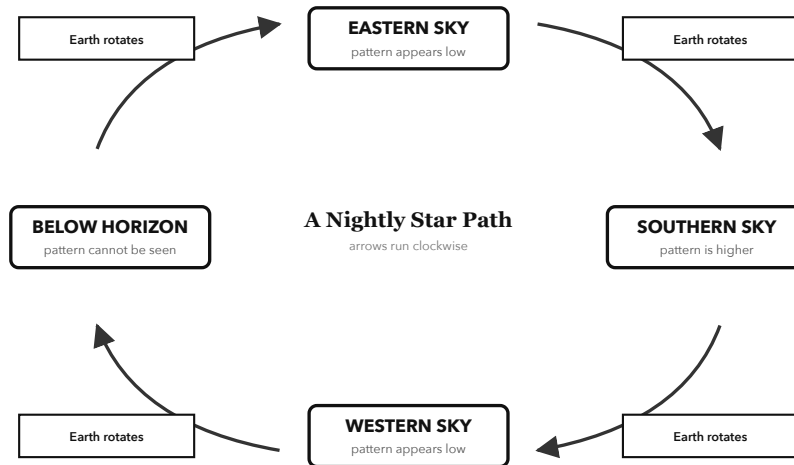
☐ I can explain why star patterns seem to move.

☐ I know the star pattern keeps its shape.

TEST THE MODEL

What does this model leave out about the stars you can see in different seasons?

PART 1 • COMPLETED MODEL



PART 2 • RUN THE MODEL

1. **WESTERN SKY** (Which stage comes after SOUTHERN SKY in the completed model?)
2. **Earth rotates.** (What process belongs on every arrow in the model?)
3. **The pattern's shape, or arrangement of stars, stays the same.** (When a star pattern seems to move from EASTERN SKY to WESTERN SKY, what stays the same?)

TEST THE MODEL (SAMPLE ANSWERS)

- It leaves out that different stars can be seen in different seasons.
- It does not show that Earth's orbit changes which stars are visible at night.

All four arrow boxes are Earth rotates. The model shows the apparent nightly path of star patterns that rise and set, and it does not show seasonal changes in visible stars.