MILESTONE TEACHERS / CLASSROOM VIEWING GUIDE

Can You Spot December From Space?

Grade 6 Science • Manitoba SCI.6.E.10 • 1:32 film

Use the day–night edge in real satellite images to make a claim about the season, then explain the pattern with Earth's tilt.

0:14

Predict from the images

Ask students to choose A or B and point to one clue. Extend the built-in pause if they need time to draw or discuss. North is up in both images. Both were taken by the same satellite at 11:50 UTC.

0:26

Use the evidence

A is December 21. Its northern half has more darkness in the image. B is June 20, when daylight reaches farther north. Compare the near north–south boundary on September 22. The dashed trace marks its approximate position.

1:04

Transfer the idea

Which town gets more December daylight, 50° N or 50° S? The model shows about 8 and 16 hours respectively. Pause for a June prediction. Look for the pattern to reverse because the same tilted axis points in the same direction as Earth orbits the Sun.

Keep investigating

Seasons Explorer lets students test a change in tilt and compare real daylight in Winnipeg and Churchill.

Use the free Seasons Diagnostic & Reteach on TpT to check students' explanations and pick a reteach activity.

GOES-16 imagery by NOAA/NESDIS and CSU/CIRA. GeoColor uses infrared imagery on the night side. Film frames were cropped and annotated. The transfer bars model daylight at the solstice with a geometric horizon and 23.5° axial tilt.

Manitoba curriculum • 2024 solstice and equinox dates • milestoneteachers.com/labs • @milestoneteachers