

Praxis “Making Science Fun”

Twinkle, Twinkle Little Star

Although often very cold, the early setting of the December sun means more time before bed to view the night sky. Many people like the winter night sky because a very familiar star pattern called Orion is visible (three bright stars row form the belt).

The old saying “Twinkle, Twinkle little star” is true. Stars twinkle but planets don’t. Don’t wish on that first star you see in the night sky and it may not come true because it’s a planet.

Can you tell the difference between a star and a planet?

Materials:

- A clear night sky.

Procedure:

- On a clear night look at the stars.
- If they twinkle they are likely stars; if not they are likely planets.
- If they move they are either planes (flashing red, green and white) or satellites such as the International Space Station. If you follow Praxis on Twitter, we tell you when and where to look for the Space Station whenever it flies over Medicine Hat.

What's happening?

“The scientific name for the twinkling is stellar scintillation. Stars twinkle because we view them through the layers of moving air.

Stars’ light travels through the many different layers in the atmosphere; each time the light is bent. This random bending (refraction) results in the star appearing to move a little which our eyes interpret as twinkling.

Stars closer to the horizon appear to twinkle because the light from the stars travels through more air layers. Planets do not usually twinkle because they are so close to us and appear big enough that the twinkling is not noticeable (except when there is a lot of air turbulence.)

Stars don’t twinkle if we viewed them from outer space.

<http://www.enchantedlearning.com/subjects/astronomy/stars/twinkle.shtml>

Extension:

Some people say that stars have different colours. To find out if you can see coloured stars look for Betelgeuse, a pale pink bright star in Orion. Next week we will return to the more familiar format of experiments related to Astronomy and the study of the Universe.

This discussion is based on our “Astronomy and Sky Science” Learning Kit. Our teaching kits are loaned out FREE to provide classroom teachers and parents of home schooled children an opportunity to explore Science in interesting ways. Please consider volunteering to speak to a class about any one of our Science learning kits described on our website. We would be most appreciative to hear from you.

Lorne Cooper, Regional Executive Director

PRAXIS, “Making Science Fun”. Contact Praxis at praxis@praxismh.ca, www.praxismh.ca, Tweet or follow us @PraxisMedHat, or friend us on Facebook. Address: c/o 200 7th Street S.W., Medicine Hat, AB, T1A 4K1 Phone: 403-527-5365, Fax: 403-527-6570.

