

Topic 4.1 Assessment

Check Your Understanding Answers

Understanding Key Ideas

1. a) Students' answers will likely include reference to the universe being everything that is. b) Accept all reasonable answers.
2. The students should be able to describe how their interpretation reflects a number of considerations including culture, place, bias, etc.

Connecting Ideas

3. a) Student answers may include: the Sun provides heat and light to humans, and helps plants grow; the Sun heats the oceans, which move heat around the planet; the Sun affects weather; the Sun has radiation in the form of UV rays, which can be dangerous to humans; the Sun's gravity keeps Earth in its regular orbit, and can bring meteoroids and comets toward us.

b) Students can consider the universe in terms of the five themes of Indigenous Knowledge. For example: Connections with Place (we all view the stars from a slightly different perspective, depending where we are); Interconnectedness (we all share the same space); Transformation (everything in space is in motion; changes can be interpreted in many ways depending on your world view); renewal (the patterns of the motions of celestial bodies are continually bringing renewal to our days, months, and years); reciprocity (the give-and- take relationship people develop with the universe can result in a variety of values, philosophies, and spiritual beliefs).

4. Examples of responses:
 - a) Hunters would monitor the night sky to keep track of migrating prey.
 - b) Farmers needed to monitor the night sky in order to anticipate times to plant and harvest.
 - c) Sailors used the night sky to navigate when there were no landmarks to guide them.
 - d) A ruler or a chief might use the night sky to know when to schedule celebrations or rituals.
 - e) An Elder, or knowledge-keeper, may use the night sky for predicting celestial events, or to maintain histories and stories of importance.
5. For example:
 - a) How can we tell the distances between us and stars?
 - b) How far away from each other are the stars?
 - c) Why are some stars different colours? Why do stars have different brightness? How are a star's colour and brightness related?

Making New Connections

6. Especially among more ancient societies, during times when knowledge about the extent of one's surroundings was limited it is not surprising that one's sense of the local could be abstracted to become the universal. Accept all reasonable answers.
7. Most students will understand that almost every individual has a diverse range of interests—regardless of career or subject-specific application.