

Earth and Space

Before Starting:

Have students make a list of all the things they wonder about regarding space. When the unit is completed, have them review their lists to determine if their 'wonderings' were addressed or not.

Suggestions for starting the unit to activate previous knowledge:

- 1 Brainstorm all words related to space. *(Have students do this alone initially, then work with an elbow partner to see how many more space words they can generate.)*
- 2 Ask students to generate the list of words as a class, once there are 10 words, begin trying to identify what they are *(Milky Way is a galaxy, Mars is a planet etc.)*
- 3 Ask them how they think night and day happens. *(Looking to see if they remember that as the earth spins, one side faces the sun and one side faces darkness.)* Students often confuse the earth spinning which creates day and night with the earth's tilt and revolving around the sun which creates the seasons. Ask them how long it takes for the earth to revolve around the sun. (365 days)
- 4 Ask what sunrise and sunset mean. *(Related to the spin of the earth toward or away from the sun. Many students think the sun moves because the language we use is confusing—sun rising in the east and sun setting in the west when in fact it is the earth turning/spinning toward and away from the sun.)*
- 5 Ask what they think keeps the earth around the sun. *(Gravity—if they determine that it is gravity, ask them to generate how they know gravity exists.)*
- 6 Ask them what might be bigger/smaller—the sun, earth, the moon, planets. *(This concept will be addressed.)*
- 7 Ask why they think we don't have summer (or another season) all year.
- 8 Ask why we don't fall off earth, why it's easier to go downhill than uphill.

Keep the vocabulary that the students generated for further reference. Have students make a copy of the vocabulary to eventually use to provide definitions. As times goes on with the unit, add new terms to the vocabulary list.