Close Reading and Text Dependent Questions in Science
Home on the Moon (Measuring Time – Grade 5)

The text selection, *Home on the Moon,* can be found at the following link:
http://www.sciencenewsforkids.org/2013/02/home-on-the-moon/

We apologize that we cannot include this reading directly; it is copyrighted material and we do not have special permissions that would allow us to post it publically. If you have difficulty accessing this article at the site above, please check the **Science Page of Aspen/SIS** for assistance accessing it.

Look in the Student Learning Outcome (SLO) Documents for guidance on when this should be taught. These can be found on the BPS Science Department's website: http://bpsscience.weebly.com/ You will find the Student Learning Outcomes documents organized there by grade level.

Home on the Moon (Measuring Time – Grade 5)
Student Questions

1. What is an exoplanet? What is an exomoon?

2. Why did the author choose the title *Home on the Moon* for this article?

3. According to the text, what problems might there be with alien life forms living on exoplanets? What details from the text support this conclusion?

4. What did scientists include on their checklist that would allow life on an exomoon? Identify at least 3 and explain why each item on the list you construct would be important for sustaining life.

5. What does the word *habitable* mean in the context of the article?

6. According to the text why can't current technology help scientists find life on exomoons?

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Sample Answers

1. **What is an exoplanet? What is an exomoon?**
   Exoplanets are planets from outside our solar system; similarly, an exomoon would be a moon for one of these planets.

2. **Why did the author choose the title *Home on the Moon* for this article?**
   The article is about the possibility of alien life on the moon of a planet outside our solar system. That moon would be the "home" of an alien life form.

3. **According to the text, what problems might there be with alien life forms living on exoplanets? What details from the text support this conclusion?**
   The article notes that many of these planets are too big and hot, whereas some others are too cold to sustain life.

4. **What did scientists include on their checklist that would allow life on an exomoon? Identify at least 3. Explain why each item on the list you construct would be important for sustaining life.**
   a. *The moon would need to receive light and heat from the nearest star and planet, so that it could have the right temperature to support life.*
   b. *The moon would have to be rocky so that it could hold liquid water.*
   c. *The moon would have to have a magnetic field to help shield it against harmful radiation.*
   d. *The article also says the moon would have to be as massive as the earth, but doesn't explain why.*

5. **What does the word *habitable* mean in the context of the article?**
   In the context of the article the habitable is connected to the checklist for conditions to make a planet livable.

6. **According to the text why can't current technology help scientists find life on exomoons?**
   The article states that current telescopes cannot determine the presence of several of the items on the checklist for habitability—like water and carbon dioxide.