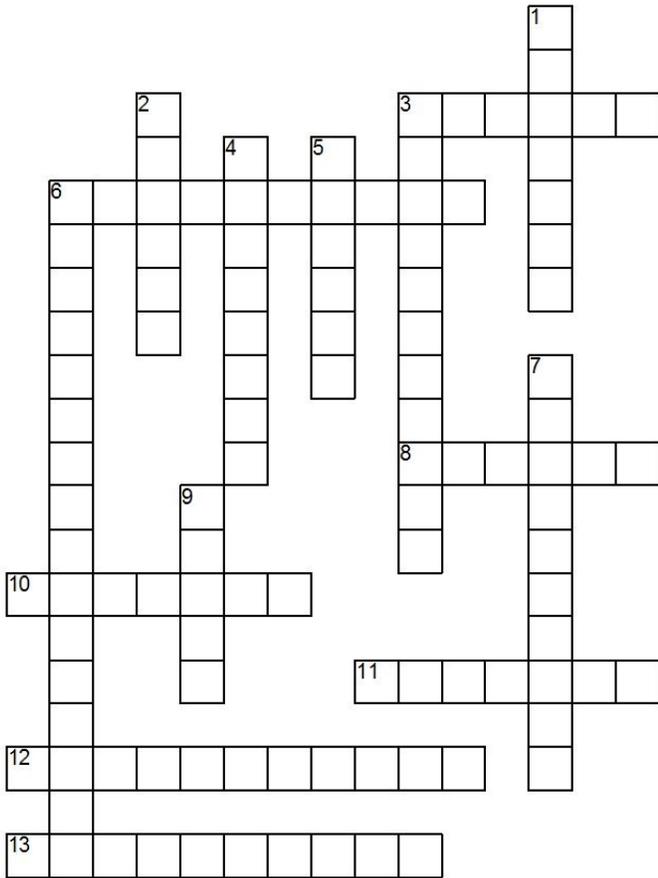


**A. Crossword Puzzle**

① Read the on-line Earth & Space notes for this chapter (i.e. see "young-s-wiki") and complete the crossword.



Earth's (13a) allows just over half of the incoming solar energy to pass through it. As Earth's surface absorbs this energy, most of it is converted into (1d) energy and Earth's surface warms. (4d) radiation is released from the surface toward space. However, not all of the radiated energy escapes into (9d). Certain gases in the atmosphere trap some of this (8a) and radiate it back to Earth's surface. This warms Earth even more. This trapping of energy by gases in the atmosphere is called the (6d).

Without the greenhouse effect, the average air temperature on Earth's surface would be about -18°C. All water on Earth would (3a), and life as we know it would be unable to (11a). The gases in the atmosphere that absorb radiation from Earth's surface are called (6a) gases. They include carbon dioxide, water vapour, and (10a).

Carbon dioxide, CO<sub>2</sub>, gas is released into the atmosphere by natural processes. These processes include (5d) fires and cellular (12a). Human activities, such as burning (3d), also emit carbon dioxide. However, not all of the carbon released is cycled - some is stored.

A substance that absorbs carbon dioxide from the atmosphere and stores it in another form is known as a (7d). Forests and (2d) are good carbon sinks.

**B. Wrap-Up Notes**

- ① Take a blank lined page and at the top of the page, in the middle, write the title for this section.
- ② Leave a blank line and then, on the left side, write the heading "WRAP UP NOTES".
- ③ Turn to the last page of the notes (P.331) and add the wrap up notes below this heading. Be sure to write neatly!

**C. Questions**

- ① Leave a blank line after the wrap up notes and then, on the left side again, write the heading "QUESTIONS".
- ② Answer the questions below under this heading. Be sure to use complete sentences and to write neatly!
- ③ Attach your answers to this sheet when you are finished.

1. How does Earth's atmosphere act like a blanket?
2. Explain why the greenhouse effect is important to life on Earth.
3. Name the two most important greenhouse gases that occur naturally in the atmosphere.
4. How is the water cycle affected by Earth's changing temperatures? How might this affect Earth's polar regions?
5. Give one natural source for each of the following greenhouse gases:
  - (a) carbon dioxide
  - (b) methane
  - (c) water vapour