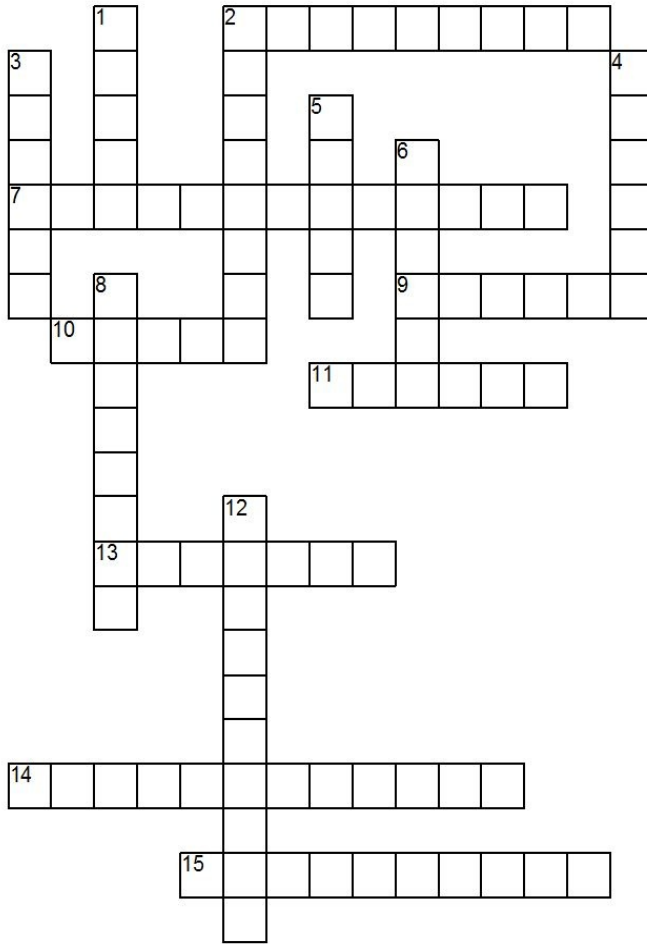


### A. Crossword Puzzle

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



Air, land, and water have very different capacities to store (7a). When the air is warmer than the ocean, the ocean (13a) thermal energy from the air. When the air is cooler than the ocean, the ocean (2d) thermal energy back into the air. As a result, the climates of regions close to oceans and large bodies of water tend to be milder in (3d) and cooler in (9a) than inland regions.

When thermal energy is transferred, it always moves from an object that is (11a) to one that is (4d). Thermal energy can be transferred in 3 different ways:

- (2a) in the form of electromagnetic waves
- (15a) through direct contact
- (12d) within fluids (liquids or gases)

The energy stored in both the air and water is transferred from the equator toward the poles by (10a) and (5d) currents. This thermal energy transfer is an important cause of Earth's (14a).

#### NOTE!

When a fluid, such as air or water, is unevenly heated, a current forms. The cooler, (6d) fluid falls and pushes the warmer, less dense fluid up. This roughly (8d) pattern of movement is called a convection current. Convection currents are responsible for moving thermal energy around the (1d).

### 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.339) 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 do convection currents form? Use a diagram in your answer.
2. What are three factors that cause ocean currents?
3. (a) Explain what happens to warm surface water as it moves north.  
(b) What type of circulation does this cause?
4. Why do the Grand Banks off Newfoundland experience some of the foggiest conditions in the world?