Interactive Trail *Draft 4*

The trail begins at the Ela Sanctuary Information Station

Answer all questions in your notebook.

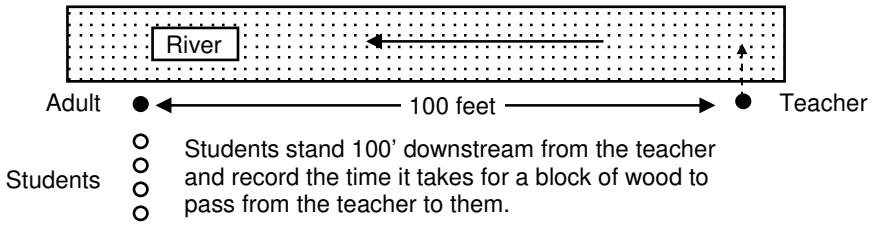
Exercise 7

Station 4

Water, Water Everywhere

Do not go to the river! Your teacher or an adult will get the materials you need and tell you what to do!

1. Your teacher or an adult will get a sample of water from the river. Determine the **oxygen content** of the river water by following the directions in the Oxygen Test Kit.
2. If you worked on Exercise 5, *Pondering Ponds* compare the amount of oxygen that is present in the river with the amount present in the pond.
3. Name two physical factors that may causes the oxygen content to be higher in some bodies of water.
4. Why is the amount of oxygen in the water important?
5. Where does the water in the river originate? *(4-4.31)*
6. Where will the water end up? *(4-4.31)*
7. Give at least three reasons why the river is important to animals in the area.
8. Give at least three reasons why the river is important to people.
9. Name two advantages of living near the river. *(4-3.14, 5-3.14)*
10. Give two important disadvantages of living near the river.
11. Why is snow depth in the mountain to the east of Grand Junction important?
12. Notice that there are different types of plants across the river. What factors would produce different types of plants?
13. List three changes that may occur if you remove all of the plant life along the river? *(4-7.05, 5-7.03)*
14. Make a guess as to how fast the water is moving past this point. (feet / second)
15. Measure off 100 feet between the instructor and the students who are downstream.
16. We can get a fairly good estimate of how fast the water is flowing in the river by doing the following procedure. Your teacher will throw a stick into the river and yell, "go". The students will record the time it takes for the stick to travel the 100 feet downstream to where they are standing. See the diagram below to see how to stand and be safe. Do this experiment two times and compare your results.



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17. Determine the **speed of the river** in feet per second. Speed = distance / time
18. Compare your results with three other students *and* compute the average speed of the river. *(4-6.02, 5-6.01)*
19. Are there some results that should not be used because they are not close to other results? How far is not close enough? *(4-1.04, 5-1.08)*
20. What effect does increased speed of the flow of water have on the river system?
21. Why is flowing water important to the fish that live in the river?
22. Make a diagram of the water cycle from ocean to land and return. Add as much detail as you can.

As you travel along the trail remember to watch for signs of wildlife. You may wish to make a list of the clues you find by copying the chart from Exercise 2.