Hi! My name is Grace O’Malley, and I am currently a junior at Allegheny College and work as a Project Assistant (Creeker) at Creek Connections. While I am sad to be leaving my Creek Connections family for the spring semester, I am extremely happy that I will be spending the semester at the Duke University Marine Laboratory in Beaufort, North Carolina. I have always dreamed of becoming a marine biologist, but going to school in landlocked Meadville has made that a little difficult. The spring semester at the lab operates on a block schedule, meaning I will be taking four 4-week courses. It will definitely be hard to learn a semester’s worth of information in such a short time, but I’m looking forward to this new style of learning. Because the classes only occur one at a time, they are able to offer some of the blocks at other locations. I have taken full advantage of this and will be taking two abroad courses! Marine ecology will take place at Heron Island in Australia. We will be visiting and studying 11 different habitats and learning about the ecology of the area and who lives there. For my next course, I will be traveling to Puerto Rico to learn and assist with the conservation efforts of green sea turtles. Be sure to follow our Instagram @creekconnections to follow along with my adventures!
Testing Tip
By: Gretchen Barbera, Allegheny College Student

Holding the dropper perpendicular!

In the basic water chemistry tests for alkalinity and dissolved oxygen, the directions require that drops be put into the solutions. When putting these drops into the solution, it is important to remember proper technique. This means holding the dropper perpendicular to the square mixing bottle. Holding the dropper perpendicular to the bottle makes certain that none of the liquid gets on the sides of the container, which could possibly change the experiment by slowing down the reaction or not even reaching the solution. Holding the dropper straight up and down also ensures that there are no air bubbles inside the dropper that could potentially change the amount of liquid being dropped into the solution. It is also important to remember to mix up the contents of the bottle after each drop has been added, ensuring that the solutions interact with each other. Don’t forget to count those drops!

Opportunities for Citizen Science
By: Grace O’Malley, Allegheny College Student

As we all know, the coming of winter usually means that you can expect the roads and sidewalks to be covered with salt. While the salt is helpful to us by melting ice and creating safer driving conditions, once the salt dissolves it can run off into surrounding streams and rivers. This can be harmful to the fish and other animals living there! It can also work its way into our drinking water, becoming harmful to us and our pipes. What can you do about this? It’s quite simple actually! Go to the Izaak Walton League of America, search Winter Salt Watch, and request a FREE test kit! Follow the instructions on the website that explain how and when to test, and how to submit your results. With your help, we can monitor the salt levels in our waterways, and find areas that may need our help!
Feature Creature
By: Bella Pettita, Allegheny College Student

I live in woodland and meadow habitats where the soil is suitable for me to burrow underground. I have been found over 60 cm below the surface. I usually grow to be about 7 to 8.25 inches in length. I am large and stout. My back, sides, tail, head, and legs are brown to brownish black with large olive spots. My underside is yellow with dark blotches. At night I emerge from my burrow to feed on worms, insects, frogs, and other salamanders. I can live to be 16 years old.

Who am I?
See last page of newsletter for answer.

Meet A Module
By: Bella Pettita, Allegheny College Student

The Drinking Water Module teaches students about the water that they drink every day! The module includes nine fun activities for students to complete. Only a Drop to Drink on Earth expresses to students the small amount of water available to drink and use. Water Meter Monitoring teaches students how to record their school and home water meter numbers. Money Down the Drain teaches students how much water can be saved per month by simply replacing or repairing faulty faucets, a simple method that prevents wasteful water loss. Search for the Epidemic Source allows students to solve a mysterious epidemic that spread through London’s water in 1854. Bacteria Testing of Drinking Water teaches about various water-borne microorganisms and the illnesses they cause by allowing students to test their water. Chemical Testing of Drinking Water allows students to conduct chemistry tests on various water samples. Create a Bottled Water Label enables students to creatively design a water label that shows the results of their water chemistry test results. Hardness Comparisons instructs students to test and understand the hardness of their water. Hardness Evidence Hunt teaches students about the consequences of having hard water. To use this module and learn more about drinking water, check its availability on the Creek Connections website and then complete the online request form.
Above: Woodcock Creek at Price Road.

Best wishes from Creek Connections for a wonderful new year!

Feature Creature Answer from page 3: Eastern Tiger Salamander (Ambystoma tigrinum)