**Introduction to Fish Hatcheries**

 The biology standard selected focuses on energy. **Standard BIO1.LS2.4** - Analyze data demonstrating the decrease in biomass observed in each successive trophic levels. Construct an explanation considering the laws of conservation of energy and matter and represent this phenomenon in a mathematical model to describe the transfer of energy and matter between trophic levels

[Pre-Lesson](http://www.currentsofchange.net/lesson-1/) – Take a little time and share a little history about our dams and tail waters. Guide students as they come to their personal understanding of the sacrifices made to have readily available electricity. Use pieces of the linked lesson to build that understanding. This is a great opportunity to review the concept of energy.

The following two activities can be completed as a web quest or whole class. Students working in small groups to answer the questions using a Chromebook or other internet access is ideal.

[Great Resource on Tennessee Hatcheries](https://www.tn.gov/content/dam/tn/twra/documents/Coldwater-Hatchery-Report-2016.pdf) – Locations and Production

1. Name the hatchery closest to your school. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Where do they get their water? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Share special circumstances concerning your hatchery. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Where are some of the locations stocked by your hatchery? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Find one activity at your hatchery that interests you. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Get the stats…
	1. Number of Trout Stocked
	2. Pounds of Trout Stocked
	3. Total Number of Stocking Trips
	4. Estimated Annual Production (lbs.)
	5. Annual Hatchery Budget
	6. Estimated Cost per Pound of Production
	7. Estimated Cost per Pound of Trout Stocked

[What Happens at a Fish Hatchery?](https://www.youtube.com/watch?v=nUhB6cldacM)

1. Watch the video.
2. Why are fish hatcheries needed? Provide recreation, Economic Stimulus to Community, Cold water habitat species below dams
3. What are baby rainbow trout called? Fingerlings
4. How long does it take to go from egg to stocking at the Dale Hollow National Fish Hatchery? 16 months
5. How long does it take from the time the eggs come in till time to feed the fish? 1 month