## Real or Artificial?

How might the choice of purchasing a real or artificial tree affect the following parts of your life, your environment, and your community?	purchasing a real Christmas tree (grown at a local Christmas tree farm)	purchasing an artificial Christmas tree (purchased at a store)
Local wildlife (Red-tailed hawk, red crossbill, song sparrow, garter snake, meadow vole, and much more)	The habitat at a Christmas tree farm supports many wildlife species that thrive in open, 'early successional" habitat (habitat dominated by young trees and shrubs). Animals will feed, rest, hide, and nest in the conifers. After Christmas, the tree can continue to benefit wildlife—if ground into mulch, it provides habitat for insects and nurtures new plant growth; if placed in a stream, it can create protective habitat for fish, etc.	No benefit to local wildlife.
Healthy soil	A real Christmas tree benefits soil in several ways. At the tree farm, tree roots anchor the soil in place and fallen needles add organic material to the soil. Often, Christmas trees are grown on soils that could not support other crops. When chipped, the real tree can be used as mulch or composted, stabilizing soil to prevent erosion and producing new soil & nutrients.	No benefit to soil health. Artificial trees are not biodegradable. When they break or get old and worn, they linger indefinitely in landfills or produce air pollution when incinerated.
<b>Clean water</b> (local streams, ponds, etc)	Trees absorb carbon dioxide from the atmosphere to produce sugar, through the process of photosynthesis. In this process, they also produce oxygen. So not only do they reduce greenhouse gases responsible for climate change, but they also produce oxygen that we and all other animals need to breathe. Young trees are particularly vigorous photosynthesizers. One acre of Christmas trees produces the daily oxygen requirement for 18 people. Trees also remove dust and pollen from the air (their leaves catch particulates, somewhat like your furnace filter). Trees with year-round leaves, like Christmas trees, do this throughout the year.	Fossil fuels are used to produce the plastic used to make most artificial trees. PVC is the most common material used in modern artificial trees, and the production of PVC releases dioxin, a cancer-causing pollutant. Fossil fuels are burned to manufacture other materials (like metal) used in making artificial trees. Fossil fuels are also burned to transport the artificial trees (some are made in the USA; most are made in Asia—more than 7,000 miles away from New York State).
Clean air	Two key causes of water pollution are soil erosion and urban run-off. Well-managed farms conserve fertile soil and clean water in our communities. On a well-managed farm, vegetated buffers separate farm fields from streams, ponds, and other surface water, which helps filter out pollutants. On Christmas tree farms, soil is particularly stable as compared with annual farm crops, so soil disturbance is minimized. Also, by keeping land in agricultural use, rather than development, Christmas tree farms help reduce the addition of impervious surfaces (driveways, roofs, sidewalks, etc) that add to urban run-off. Some Christmas tree farms use synthetic insecticides and herbicides when growing trees; others do not."	No benefit to clean water. Air pollution caused by production and transportation of artificial trees contributes to water pollution through acid precipitation.
Local farmers	Christmas trees provide a winter cash crop for farmers, and help to diversity their source of income. When farmers get paid more for their products by selling locally, they are less likely to sell their farmland for development. When you buy locally grown products, you help preserve the agricultural landscape.	No benefit to local farmers.
My community	Buying locally keeps money circulating locally. There are about 15,000 commercial Christmas tree growers in the U.S. (more than 850 in NY alone), and over 100,000 people employed full or part-time in the industry.	If the artificial tree is purchased at a local store, then there is a benefit to the local store owner. If the tree is purchased on-line, there is no benefit to the local community.
My family	Going out to buy or cut down a Christmas tree at a local tree farm with friends or family builds relationships and is fun. A real tree makes the home smell great (many conifer species). Fallen needles can be swept up to make scented pillows (and after Christmas, the tree's needles can be removed to make scented pillows).	No fallen needles to clean up. No watering needed. The plastic material used to make many Christmas trees, typically PVC, can be a potential source of lead contamination, particularly as the tree ages.
My wallet	Encourage students to compare the financial costs of real versus artificial trees, both up-front and long-term.	High up-front cost. Maintenance or replacement cost depends on quality of initial product. Many website sources estimate that artificial trees last 5-10 years.