

Sweet Science at Reed City Middle School

by: Tim Webster, Principal
Reed City Middle School

It is time for our science classes to study the sweet science of maple syrup. Our students will investigate and learn about many aspects of the maple syrup process. The process of transforming maple sap into syrup aligns with the Michigan Science Curricular requirements. Students will be studying the biology and physiology of a maple tree as well as the chemical and physical changes involved in the process of changing sap into syrup. Students will collect data on the amount of sap each tree produces, measure the sugar levels of the sap collected, and discover trends of sap production in relation to temperature.

This year we will use a continuous flow evaporator and arch that has been provided to us through a generous grant from General Mills/Yoplait. The arch is a brick-lined fire box with a chimney. The syrup pan will sit on top of the arch. The students will use this equipment to study the transformation of energy, types of changes in matter, and the prevention of heat loss. We will also investigate how different types of woods and energy saving equipment affect the production of syrup.

Now is the time to start tapping the trees and organizing the maple syrup operation. This scientific exploration is a valuable opportunity for students to experience and apply how sweet science can be.

The maple syrup project is expanding to involve students in the entire district. Elementary teachers have toured in the past and more will be invited in the near future. Mr. Grothe has coordinated some of the students at Reed City High School who attend the career center to fabricate syrup equipment from stainless steel. And, finally, the finished maple syrup will be bottled and sold through the middle school business club. Funds raised will be put back into the program to ensure its longevity.

This project has been spearheaded by Mr. Nista, our 7th grade science teacher. The entire science department has been involved to make middle school science awesome for students.