

MAPLE

in the classroom

NAME: _____



experience
LEARNING



Maple Math

Grades 5-6

Here are some questions farmers must be able to answer. Can you answer them?

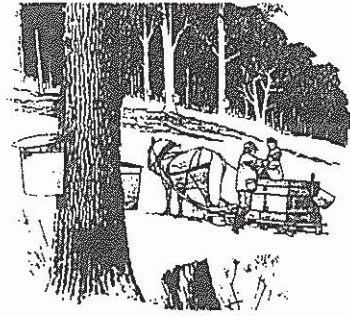
Give it a try.

1. Maple sap is collected in buckets. Each bucket holds 4 gallons of sap. If a farmer collects sap from 50 buckets, how many gallons of sap has the farmer collected?
2. Some farmers collect maple sap in large tanks. One farmer has a 200 gallon tank. If the tank is one-half ($\frac{1}{2}$) full, how many gallons of sap has he collected?
If the tank is three-fourths ($\frac{3}{4}$) full, how many more gallons must he add to fill the tank?
3. It takes approximately 40 gallons of sap to make 1 gallon of maple syrup.
If a farmer collects 80 gallons of sap how many gallons of syrup can he produce?
If a farmer collects 60 gallons of sap, how many gallons of syrup can he produce?
4. A maple tree produces about 3 gallons of sap on an average warm day.
If the weather pattern remains the same, in three (3) days, how many gallons does a tree produce?
How many gallons of sap would 7 trees produce in 5 days?
5. In a sugar bush, some of the older and larger trees can have more than one tap. In our imaginary sugar bush, Tree A has 4 taps, Tree B has 3 taps, Tree C has 2 taps, Tree D has 4 taps, and Tree E has only 1 tap.
How many total taps does the maple farmer have in this sugar bush?
If the number of taps were reduced by one (1) per tree, how many trees would have taps?
How many total taps would be used on all trees?
If each tap produced ten (10) gallons of sap during the sugar season, how much total sap would be produced?



Maple Math I

Here are some questions farmers must be able to answer.
Can you answer the questions. Give it a try.



1. Maple sap is collected in buckets. Each bucket holds 4 gallons of sap. If a farmer collects sap from 50 buckets, how many gallons of sap has the farmer collected?
2. Some farmers collect maple sap in large tanks. One farmer has a 200 gallon tank. If the tank is one-half ($\frac{1}{2}$) full, how many gallons of sap has he collected? If the tank is three-fourths ($\frac{3}{4}$) full, how many more gallons must he add to fill the tank?
3. It takes approximately 40 gallons of sap to make 1 gallon of maple syrup. If a farmer collects 80 gallons of sap, how many gallons of syrup can he produce? If a farmer collects 60 gallons of sap, how many gallons of syrup can he produce?
4. A maple tree produces about 3 gallons of sap on an average warm day. If the weather pattern remains the same, in three (3) days, how many gallons does a tree produce? How many gallons of sap would 7 trees produce in 5 days?
5. In a sugarbush some of the older and larger trees can have more than one tap. In our make-believe sugarbush, Tree A has 4 taps, Tree B has 3 taps, Tree C has 2 taps, Tree D has 4 taps, and Tree E has only 1 tap. How many total taps does the maple farmer have in this sugarbush?

If the number of taps were reduced by one (1) per tree, how many trees would have taps? How many total taps would be used on all trees? If each tap produced 10 gallons of sap during the sugar season, how much total sap would be produced?

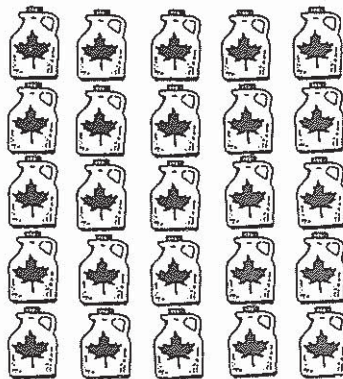
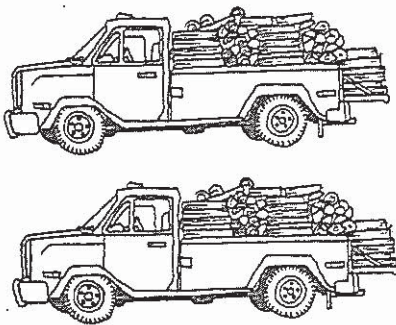


Maple Math II

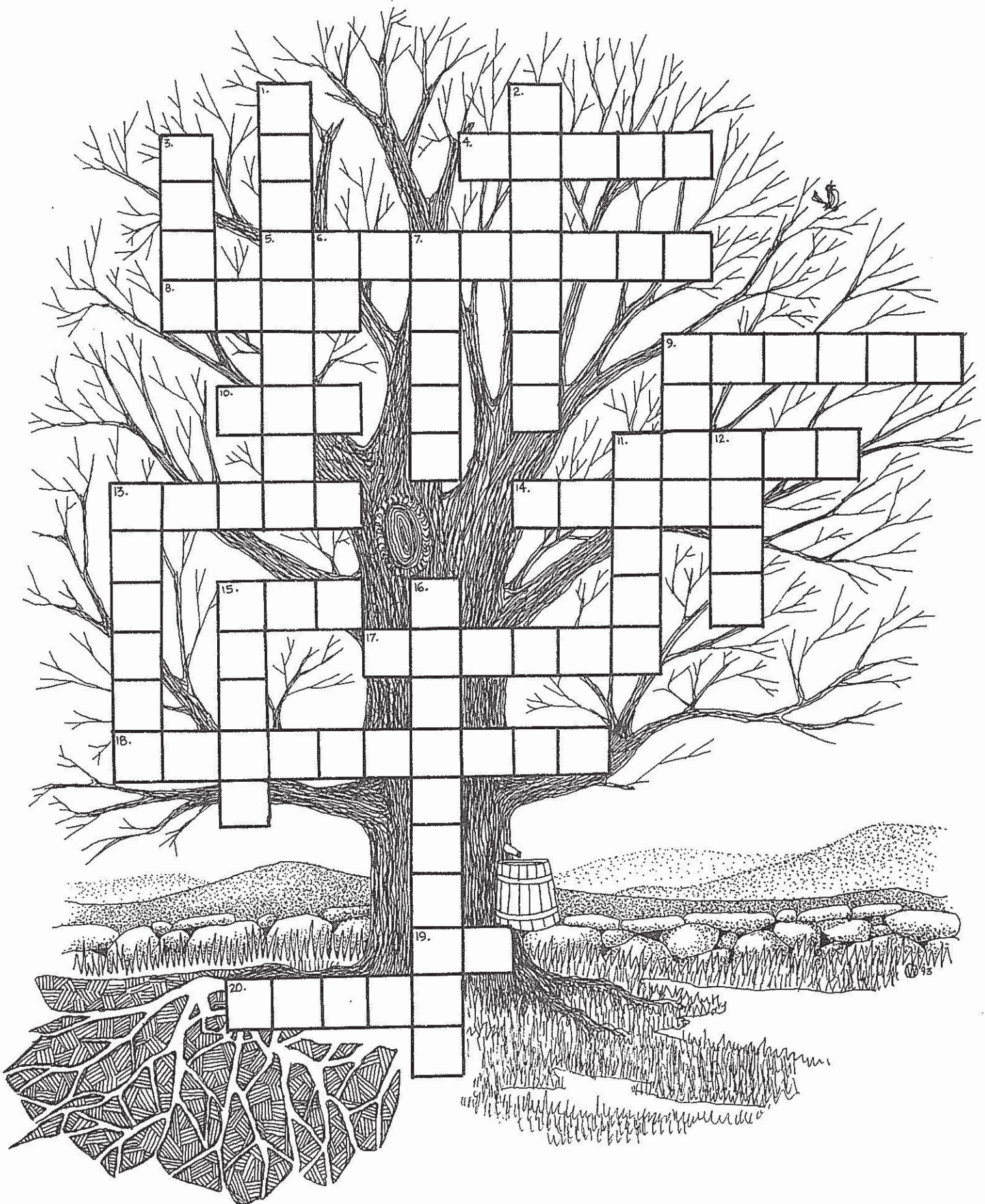
Boiling away almost all the water from the sap to make maple syrup requires a big fire for a long time. This means lots of fuel. Two pickup trucks full of firewood will boil enough sap to make about 25 gallons of maple syrup. In order to produce 100 gallons of maple syrup, a maple farmer must burn 8 truck loads of firewood, which is enough wood to heat an average home for a whole winter. If the maple producer boils his sap with an oil burner, it would require about 400 gallons of oil to make a 100 gallons of maple syrup.

Using this information, answer the following questions:

1. Mike Maplefarmer produced 1000 gallons of syrup last year.
How much wood did he burn? _____
If he was burning fuel oil, how much would he use? _____
2. Sally Syrupmaker helped stack 12 pickup truck loads of firewood.
How much syrup would this make? _____
If she wanted to make 500 gallons of maple syrup, how many loads of wood would she need? _____
3. Ivan Boilsapski, a very hard working maple sugarmaker, tapped over 6000 trees last spring. When he was all finished in late April, he had made just over 2000 gallons of delicious maple syrup.
How much wood did he end up burning during the six week maple season? _____
How many of his neighbors houses could have kept warm all winter using that same amount of wood? _____



Maple Word Puzzle I



Maple Word Puzzle I

ACROSS

4. A piece of _____ can be made from maple syrup.
5. The first settlers of Massachusetts learned about maple sugar from the Native _____.
8. To boil maple sap you need a hot _____.
9. On a _____ of a maple tree is where you will find the leaves.
10. In the springtime, the maple farmer will _____ his trees in order to get the sap.
11. An older way to spell syrup.
13. Sap is a colorless liquid that looks just like _____.
14. Maple syrup can only be made from this type of tree.
15. The liquid that flows from a tapped maple tree at the end of winter.
17. A metal or wooden _____ is hung on a maple tree to collect the sap.
18. The metal pan used to boil and evaporate the sap is called an _____.
19. The sap in the roots flows _____.
20. These take in water and nutrients from the soil for the tree.

DOWN

1. The Native American Indians made their maple sugar into a cakelike block called a _____.
2. Maple syrup is often poured over a waffle or a _____.
3. Part of the maple tree that turns a beautiful red or orange in the fall.
6. The person who loves pure maple syrup the most.
7. The Native Americans evaporated their maple sap by heating _____ in a fire and dropping them into a container of sap.
9. To evaporate maple sap into maple syrup, it must _____ for a long time.
11. After a taphole is drilled into a maple tree, a maple sugar farmer puts a _____ into the hole.
12. Artificially flavored syrup never tastes as yummy as _____ maple syrup.
13. Some people like their syrup on a pancake, some like it on a _____.
15. Maple sap is slightly sweet because it contains a little bit of _____.
16. The farm building where maple syrup is made.