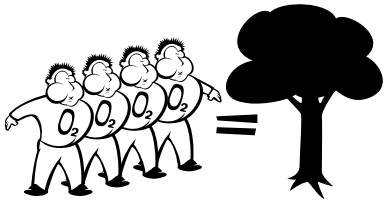
Name _____ Date _____

Trees Can Do It: Just Do the Math!

1. One large tree can provide a day's oxygen for up to four people. How many trees are needed to provide one day's oxygen for your entire class? How about your entire school?



2. Evergreen trees planted in a row create a windbreak. A windbreak can reduce home heating costs by 10 to 15 per cent. If you planted a windbreak that would provide a 10 per cent saving, you would save $120 on a heating bill of $1,200 per year.

a) How much would your final bill be?

b) How much money would you save over five years?

c) What other benefits would that windbreak provide?

3. You need about 500 full-sized trees to absorb the carbon dioxide produced by a typical car driven 20,000 km per year. Estimate how many kilometres your family drives per year. Don't forget to include the mileage on all vehicles used at both home and work. How many full-sized trees does your family need to absorb the carbon dioxide produced by your vehicle(s) in one year?

4. One hectare (2.5 acres) of Christmas trees produces enough oxygen to support 45 people. Christmas trees are harvested when they are 10 years old. This means that a Christmas tree farm cuts only 10 per cent of its crop each year, leaving another 90 per cent growing.

a) If a farmer has 80 hectares (200 acres) of trees, how many hectares (acres) of trees does he need to replant after each harvest?

b) The remaining trees can meet the oxygen needs of how many people?

c) Why is there a difference between this information and the information given in #1.
Hint: Think about the different tree types.

5. Each day a full-sized tree can absorb nearly 75 per cent of the carbon produced by the average, well-maintained car. How many trees are needed to absorb the daily carbon from 75 automobiles?

See answers on page 39.