

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Lesson 5: 3RC (Reduce, Reuse, Recycle and Compost) – 3RC Math Challenge Homework

### I. Instructions

Each of the following problems is based on real-life data. Use a separate piece of paper to solve the problems. *Show your work* and include labels on your answers.

1. It takes 26 recyclable plastic soda bottles to make one polyester suit. ( <i>Did you know this is possible? ☺</i> ) How many bottles will be needed to make one dozen suits?	6. Every hour Americans throw away 2.5 million plastic bottles. How many plastic bottles are thrown away in one day?
2. Americans throw away about 18 million disposable diapers per year. How many diapers are thrown away each month?	7. Approximately 240 million tires are discarded per year in the U.S. How many tires is that per month?
3. One 15-year old tree makes enough paper for only 700 grocery bags. A busy grocery store can hand these out in about 1 hour. How many bags will this busy store hand out in 8 hours? How many 15-year old trees will it take to make all these bags?	8. Recycling about 120 pounds of newspaper will save one tree. If a community recycles 200 tons of newspaper per year, how many trees are they saving?
4. About 70 billion beverage cans were used in 1985. 94% of those cans were aluminum. What is the actual number of aluminum cans that were used?	9. The amount of energy that it requires to make 2 brand new aluminum cans is the same amount of energy required to make 20 recycled aluminum cans. If a company has enough energy to make 500,000 brand new cans, how many recycled cans can they make instead?
5. One hundred fifty-four million tons of trash is produced in the U.S. in one year. Half of this trash is recyclable. How many tons of trash is <i>possible</i> of being recyclable in one year?	10. One hundred fifty-four million tons of trash is produced in the U.S. in one year. Only about 13% of this trash actually gets recycled. How much trash is <i>actually</i> recycled in the U.S. each year?