

**MATH:** This is the summer MASTER your multiplication facts (0-9). Multiplication facts connect to EVERY math skill from this point forward. Students will need to know these facts before they can do division, fractions, area/perimeter, algebra etc... I cannot tell you how much difference knowing them makes! Now is the time to set your child up for success and less stress in math!

There is a multiplication pretest on [www.multiplication.com](http://www.multiplication.com) that your child can take to determine their level of mastery. I suggest using this test as a starting point. The best way to practice is by mixing the facts together. Make it fun with songs, games, kitchen timer races etc...

You can make copies of the attached practice test and time your child for 6 minutes. As they study, their time will only get faster. Doing this several times a week will help get them used to working quickly. As they get faster, challenge them to complete it in less time. Let them race against a parent, older sibling or the entire family as a game. Make it fun! These tests will look very similar to the timed practice we will do in August, so get a head start!

Have a wonderful summer!

Ms. Johnson



## Summer Science 4th grade

happening with the shadow and  
the relation to the sun's position.

Due: First day of science lab.

**How do patterns of shadows  
explain Earth's movement?**

Have you ever noticed a  
shadow of a tree in your yard  
changes direction and length  
throughout the day?



**Materials:** measuring tape or ruler, one white  
8X11 paper

folded into fourths, pencil

### **Procedures:**

1. Choose an object, such as a tree, in a sunny location that you can observe three times in one day and over three sunny days.
2. On a sunny day stand in the same spot to observe your object at 9:00am, 12:00pm and 6:00pm
3. Sketch the object, its shadow and the location of the sun each time in one of the four boxes on your white paper folded in fourths. (labeling each box 9:00, 12:00, and 6:00)
4. Measure the shadow in inches or yards and label the length of the shadow on each sketch.
5. Observe your object and its shadow for two more days.
6. In the fourth box write a conclusion of the pattern you see