

## Rainbow Science

### Items Needed:

Clear glass of water (Almost Full)

A piece of white paper

Masking tape

Flashlight

CD or DVD

### Activity

1. Cover flashlight with 2 pieces of tape leaving a slit in the middle.
2. Shine flashlight through the glass of water onto a piece of paper.
3. The rainbow should appear on the paper. (Turn off light to see better).
4. You may need to raise the glass higher or move the glass to the edge of the paper to change the angle and make a better rainbow.

### Extend the Activity:

Grab a DVD or CD. Shine the light onto the DVD/CD a rainbow will appear.

### Science Behind This Activity:

The light from the flashlight (white light) contains all the different colors of light (Red, Orange, Yellow, Green, Blue, Purple (or Indigo and Violet if you prefer)). When you shine the light through the water or onto the CD/DVD, it refracts (bends) and splits into the different colors. This is because the different colors (wavelengths) of light behave slightly differently as they travel through the water and glass.

## Rote Counting

### **\*\*Parent Note:**

**Rote count saying the numbers in order. Start small and gradually increase to count higher. Just count saying the number words without counting objects everyday!**

**(Counting objects can limit how high they need to be counting. Counting objects is another skill that is called rational counting and should be done after rote counting gets started. Just remember there are 2 kinds of counting and both should be done. Rote counting establishes the number words in order and goes higher than rational counting of objects.)**

**A child needs to have rote counting established to 30 before they begin backwards counting from 5.**

**The higher a child can rote count when they enter kindergarten, the smarter they will be in math. They are building a numberline in their head and it will help them understand addition, subtraction, fractions, multiplication and division much better later on in their education. Building and having a mental number line will give them number sense.**

Count while you are taking a bath or shower.

Count in the car until mom or dad says stop.

Count in the car until you come to a stop light.

Count in the car until you see truck.

Count in the car until you see a red car.

Count in the car until you see McDonalds.

Count in the car until you see a gas station.

Count in the car until you see the stoplight change from red to green.

Count in the car until you see a grocery store.

Count as you walk to brush your teeth.

Count as you walk to the car.

Count as you walk to the kitchen.

Count as you walk to the bedroom.

Count as you walk to your favorite toy.

Count as you walk to the door.

Count while you are putting on your shirt.

Count while you are putting on your shoes.

Count while you are putting on your socks.

Count while you are putting on your coat.

Count while waiting for the toast to pop up.

Count while washing your hands.

Count while you exercise to touch your toes.

Count while you exercise to touch your toes like a windmill.

Count while you exercise to march.

Count while hop forward on 2 feet.

Count while you jump up and down.

Count as you run to the tree.

Count as you walk backwards to your bedroom.

Count until you hear the timer on mom or dad's cell phone. (Set the timer on the phone for various amounts of time. Start with 20 seconds and build up the time as they are able. May have to count with them at first.)

At the grocery store, count until you get to the end of the aisle.

At the grocery store, count until you get to the car with the groceries.

Count while waiting in line at the grocery store.

Count during a commercial on TV.

Count while you are riding on your tricycle to \_\_\_\_\_.

Count while you are swinging on the swing to \_\_\_\_\_.

Count while you are picking up your toys.

Tina Johnson

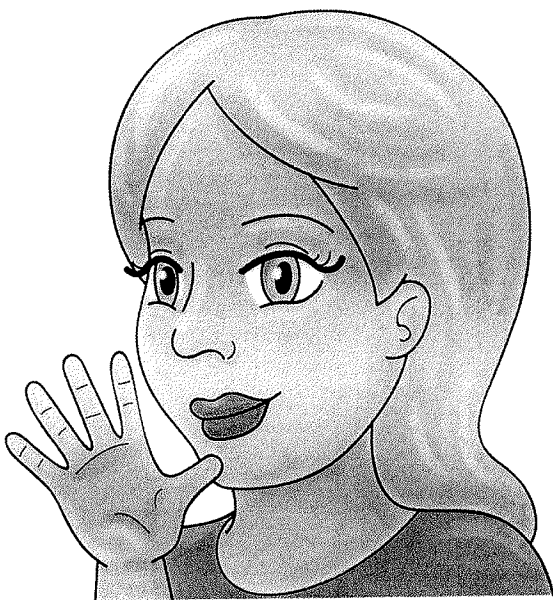
Numeracy Rocks 2014



# grandma

Right hand wide open,  
thumb on chin  
moves out and away,  
creating two humps.

Emma   
& Egor   
Signing Exact English &  
American Sign Language



# mother

Right hand wide open,  
tap chin with thumb.

Emma 