

Learning Enrichment and  
Acceleration Program (L.E.A.P.)  
October Activities



5th Grade: Balanced and Unbalanced Forces

*Materials:*

- (1) Metal or plastic pie tin plate
- (1) Plastic cup of water
- (2) Eggs
- (1) Toilet paper tube
- (1) Roll of paper towels for cleanup

**Instructions:**

1. Fill the plastic cup halfway with water.
2. Place the plate on top of the cup (center it).
3. Stack the toilet paper tube on top and center it as well.
4. Finally, balance the egg on top of the toilet paper tube.
5. Use the palm of your hand to knock the plate away.

**Tip:** Don't hit the tube or the cup. Only the plate!

4th Grade: Solar Cooker

*Materials:*

- (1) Large/medium/small box
- (1) Roll of foil
- (1) Knife to cut the box (adults only!)
- (1) Roll of plastic wrap
- (1) Sheet of black construction paper
- (1) Pair of scissors
- (1) Roll of tape
- (2) Graham crackers
- (1) Chocolate bar
- (1) Marshmallow

**Instructions:**

1. Tape the box closed.
2. Ask an adult to cut a large door into the biggest side of the box.
3. Line the door and bottom with foil (use tape to secure it).
3. Place a small piece of black construction paper inside the box.
4. Place the S'more on the construction paper.
5. Cover the opening with plastic wrap (for best results, seal completely to retain heat).
6. Place the box in the sun around noon (time required varied based on weather, typically sunny)
7. When the chocolate has melted (or is at least warm)... eat the S'more!

3rd Grade: Egg Drop Challenge:

*Materials:*

- (1) Uncooked egg
- (1) Handful of straws (9 inch long, extra wide in diameter)
- (1) Roll of tape
- (1) Pair of scissors
- (20) Rubber bands

**Instructions:**

1. Make a triangle out of a straw and tape it together or use rubber bands.
2. Repeat this two more times.
3. Tape all 3 triangles together around the egg to make a pyramid shape.
4. Decide how else to cushion the egg - for example: using more straws
5. Spread the painter's tarp or newspaper on the ground or floor.
6. Hold your egg high above your head and drop it on the painter's tarp.
7. Did it work? If not try a different design.
8. Be creative, test your own designs and materials (Styrofoam, balloons, etc)

## 2<sup>nd</sup> Grade: Water Wheel

### Materials:

- (1) Large plastic container
- (2) Long rulers
- (2) Paper or foam plates
- (1) Deck of playing cards
- (1) Wood barbecue skewer
- (1) Pair of scissors
- (1) Roll of tape
- (1) Stapler
- (1) Pitcher of water

### Instructions:

1. Poke a hole in the center of each plate.
2. Fold 8 playing cards or cut index cards to the size of playing cards and fold it in thirds with the help of a ruler.
3. Staple the playing cards or index cards evenly around one plate, then staple them to the other.
4. Insert the skewer through the two holes in the plates.
5. Place two rulers on top of the large plastic container.
6. Place the water wheel on the rulers and tape down the skewer.
7. Pour water onto the wheel and observe the results!

**Quick tip:** A foam egg carton can be cut apart and used in place of playing cards.

## 1<sup>st</sup> Grade: Catapult

### Materials:

1. 7 Pencils
2. 1 bag of cotton balls
3. 7 pieces of rubber bands
4. 1 plastic spoons

## Kindergarten: Marshmallow Tower

### Materials:

- (1) Packet of spaghetti
- (1) Bags of marshmallows - big and small.

## Pre-K - Sail Boat

### Materials:

1. 2 buckets of water
2. Ream of paper
3. Aluminum foil
4. Marbles for weight

