Egg Drop

Materials per group:

1 raw egg
20 plastic straws
10 cotton balls
1 meter of tape
Optional: 10 Popsicle sticks

The goal: Be able to drop your egg from the ledge outside the classroom and have it hit the ground without breaking.

Demonstrate what happens when you drop a hard-boiled egg off the ledge of the stairs. Take a few minutes to describe what shock absorbance is and how the materials you brought can be used to shield a raw egg drop.

Divide the class into groups of 2 or 3 depending on how much time you have to test drop and how many materials there are. Have them design a container for the egg so when it is dropped the egg doesn't break. Make sure there is a limit of how much of the egg is still showing, at least a quarter sized amount is usually good.

Give them about 20 minutes to build their containers. Be sure to circulate to make sure they have at least a little bit of the egg showing and don't let any group receive more materials.

Mark the ground with a test drop of a cup of water or the hard boiled egg. Cover the area with newspaper or something else that can be easily cleaned up.

When the groups are done, take them outside. Have each group designate one dropper and the rest of the group needs to be on the ground to clean up the carnage. Have a "panel" (probably just the teacher) decide what counts as a cracked egg or not. The rest of the groups have to see the container before it is dropped to be able to have a discussion of what happened, what worked, and what didn't. Have a prize ready for groups whose eggs didn't break!