

**Materials:**

Each group of students will be given
1 raw egg
20 drinking straws
6 rubber bands
24" of masking tape
6 paper clips

Hardware:

Digital Camera – students will take pictures to document the teamwork process

Overview:

Students will use provided materials to design a protective device used to keep a raw egg from breaking when it is dropped. Students must work closely together to develop the ideal "eggshell", so this activity will encourage teamwork and allow students to be creative.

Step by Step:

1. Divide students into groups and give each group a set of supplies.
2. Instruct students to build a protective device for the egg using only the materials they have been given. Set a time limit for completion that will give you enough time at the end of your session for the contest.
3. Once the time limit has been reached, begin the contest. Begin dropping the eggs, one at a time, from a specified height. You might want to start with a small drop of only a few feet and gradually progress. The softness of the landing will also make a difference in how long the eggs last – grass or carpeting is a lot more forgiving than concrete or tile.
4. All eggs that make it through the first round will make it to the next round, where eggs are dropped from an increased height. Continue dropping the eggs until only one egg remains whole.
5. Declare the winner of the contest. Don't forget to praise the "shells" that are more original and creative along with the more functional ones.

Additional Activities:

Students may take pictures using the digital camera in order to document the teamwork process. The pictures will then be reviewed after completion of the project, and a discussion of group dynamics can be facilitated.

The following questions may be asked of the students to encourage their participation in the discussion:

- What would you have done differently if you were working by yourself?
- How did working together improve the results of your project?
- What would you do differently if you did the project again?
- How could you have improved the cooperative effort of the group?
- What were some problems you encountered while working in the group?
- What were the positive things that happened in the group?

Hints:

- You may want to try this outside to cut down on the cleanup.
- Be sure to buy some extra eggs, as some may break before the contest begins.
- Try not to give students advice about how to build a better device, even if they ask for it. Let them develop their own solutions.