

Date: Wednesday, July 1, 2020

Time: 1:00 p.m. (45-60 mins)

**Materials:**

Plastic Egg

Cotton Balls

Grass

2 Straws

Not Included: Real egg, Tape,  
rubber bands, newspaper,  
pipe cleaners, balloons,  
paperclips. and string

## Activity Agenda

### STEM – Egg Drop



#### I. Welcome

**Be sure to have your materials ready before the video session starts and always ask an adult for help and permission.**

#### II. Activity Overview

**The Easter holiday has egg hunts and egg decorating, but what about egg dropping? We will use our engineering skills to design and build an egg drop device. They will be given a budget and a list of materials they can ‘purchase’ to protect their egg. We will need to think creatively to slow the rate of descent and protect our egg from cracking.**

#### III. Grade Levels

- All campers are welcome to join to learn and participate in the activity

#### IV. Activity

1. Look over your materials. Fill out which materials you will be using and calculate your total. You have \$100 to spend.

Material	Cost (\$)	Quantity	Cost x Quantity
1 Toothpick	2		
1 Paperclip	2		
1 Straw	3		
1 String (12")	3		
1 Cotton Ball	5		
1 Pipe Cleaner	5		
1 Rubber band	5		
1 Sheet of Paper	6		
1 Paper Plate	15		
1 Set of Newspaper	20		
Grass (all)	20		
1 Balloon	20		
Total Cost =			



## Sketch Your Prototype

### Build and Test

- Build your design. You can use the plastic egg as a stand in for a real egg.
- To test your design, you will need to drop your device from a great height.  
Recommendations for drop site: second floor of home over the railing, top of a playground at home or park, and have your parents drop the device from the top of a ladder.

### Final Questions

1. How was your egg protected from cracking?
2. What element worked the best? Which element did not work?
3. What could you change to improve your design?

### V. Clean Up

**A Girl Scout always leaves a place cleaner than she found it.**

### VI. Closing

**Be sure to tune into our next activity – Springtime Fun at 3:00 p.m.**

**See you soon, Girl Scout!**