

Lesson Topic	Egg Drop	Date	April 21, 2021
Subject/Grade Level	Grade 5/6 Science	Time	12:50-1:50 2:20-3:20

Outcomes from Alberta Program of Studies	
General Learning Outcomes	<p style="text-align: center;">6-6</p> <p style="text-align: center;">Construct devices that move through air, and identify adaptations for controlling flight.</p>
Specific Learning Outcomes	<p style="text-align: center;">6-6</p> <p style="text-align: center;">Conduct tests of a model parachute design, and identify design changes to improve the effectiveness of the design.</p> <p style="text-align: center;">6-4</p> <p style="text-align: center;">6-1 & 6-2</p>
Learning Objectives	
<p>Students will know: How the forces drag and gravity work to make a parachute work</p> <p>Students will be able to: Explain how the parachute and the forces of drag and gravity help slow down the falling egg.</p>	
Prior to the lesson I need to:	Materials/ Equipment and Resources
Print off copies of project Make sure I have all of the materials ready	Egg Drop Project

Time	Introduction
5 min	<ul style="list-style-type: none"> ● Hand out the instructions and go through the instructions with the students ● Split students into different group/pairs ● Ask for any questions about the project ● Explain the budget <ul style="list-style-type: none"> ○ Keep track of budget on whiteboard or piece of paper

Time	Body (Learning Activities)
45-50 min	<ul style="list-style-type: none"> ● The first hour 12:50-1:50 will be for building our egg baskets <ul style="list-style-type: none"> ○ They will need to budget for their supplies.(use whiteboard or loose leaf paper to keep track of their budgeting ● Remind students that when working in a group or pair it is important to listen to your partner ● Make sure to have students clean up their supplies near the end of the lesson. ● Have each group name their egg contraption or flyer for when we drop them later <ul style="list-style-type: none"> ○ pairs/groups also must decide who will drop their egg and who will be at the bottom to check if it has cracked ● The second hour 2:20-3:20 will be for testing <ul style="list-style-type: none"> ○ First, we will have Ms. Berry's class drop from their classroom out the front of the school <ul style="list-style-type: none"> ■ Ms. Thompson's class will be waiting outside to watch the other class drop their eggs. ○ Next, Ms. Thompson's class will drop their eggs from our classroom window <ul style="list-style-type: none"> ■ Ms. Berry's class will be waiting outside to watch the drops and help bring in the material ● The rest of the time in the hour will be for recording our results <ul style="list-style-type: none"> ○ Hand out the Egg Drop results to different groups. ○ Have them fill in their answers based on their experiments and information
Time	Closure
5 min	<ul style="list-style-type: none"> ● Share with someone else (not your partner) <ul style="list-style-type: none"> ○ Go through your results together ○ Show diagram and list of materials ○ Did your egg crack or not? ○ What do you think worked well for your egg drop? What would you change? ○ What are somethings that human use that are similar to the egg drop <ul style="list-style-type: none"> ■ Parachutes, parasails, hang gliders

Egg Drop Project

Description: We will use what we have learned about gravity, drag and parachutes to create a container and parachute to protect an egg from an extended fall.

Objective: With your group you will design, plan, budget for and build containers with parachutes to protect your egg. Your group results will be evaluated on your planning, design, time management, and functionality.

Twist: Your group will be given a budget to spend on materials. You will have to plan and design carefully to best use your funds. Budget will be \$500.

Price list:

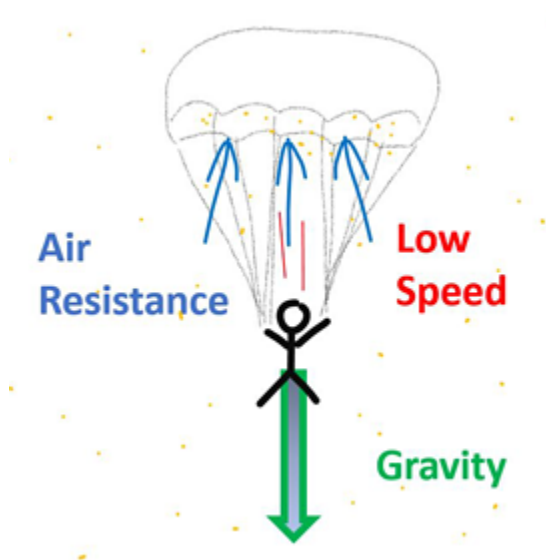
- Handful of Cotton Balls - \$100
- Bowls - \$50
- Sponge - \$100
- 10 Popsicle sticks - \$50
- Sandwich bag - \$50
- 10 Straws - \$50
- Pipe Cleaners - \$50
- Clay - \$100
- Coffee Filter - \$50
- Extra Cup - \$50
- Tinfoil - \$50
- Saran Wrap - \$50
- Brown Lunch Bag x 2 - \$50
- Handful of elastics - \$50
- Larger parachute - \$150
- Extra 4 strings - \$50

3. What is something you might have done differently to keep your egg safe?

4. What things that humans use are similar to the egg drop experiment?

Egg Drop Debrief

1. How many people had their egg drop and not crack?
 - a. What about your design do you think helped keep your egg safe?
 - i. What materials worked best?
 - b. What is something you might have changed to help keep your egg safe?
2. How did the parachute help the egg drop slower (what is the science behind the egg drop)
 - a. The air gets captured underneath the canopy of the parachute.
 - b. That air creates a resistance or drag, this force is what slows the parachute down



Use it as a time to share results and ensure that students understand how parachutes work. Make sure to try to have students use terms like drag, gravity, canopy.