**WEEK 8 – Create a Parachute**

**Unit:** Data

**Grade:** Junior (4-6)

**Curriculum Expectations**  
 Analyse different sets of data presented in various ways, including in stem-and-leaf plots and multiple-bar graphs, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions  
**SEL**-Work through challenging math problems, understanding that their resourcefulness in using various strategies to respond to stress is helping them build personal resilience

**Activity  
1)** Students will experiment with creating parachutes out of a variety of materials to slow the descent of a light non-fragile object **2)** Students will choose a relatively light object (i.e. A penny pen etc.) that doesn’t break easily that they can drop from a height of about 6 feet. First students will time how long it takes for the object to hit the ground when dropped from above their head, recording this time on the sheet below.   
**3)** Using objects around their house, students will construct a series of parachutes that they can attach to their object. Students will start by estimating how long they think each parachute combination will take to hit the ground  
**4)** One-by-one, students will drop these objects from above their head, and time how long it takes for each parachute set takes to hit the ground, recording the results on their recording sheet  
**5)** Once each item has been dropped, students will then create a bar graph demonstrating the length of time each parachute took and will answer the follow up questions

**Check for Understanding**   
I can collect data through measurement and observation  
I can graph simple relationships and notice patterns  
I can make estimates and justify them

**Materials**   
Recording sheet (attached below), timer, non-breakable object, objects to make a parachute, pencil

Object attached to the parachute \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| **Material used** | **Estimated time in the air and why do you think this?** | **Time in air** |
| Nothing |  |  |
|  |  |  |
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What were some of the materials that slowed the descent the longest?:

Were your estimates accurate? Why or why not?

Why do you think these objects may have slowed the descent the most?:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Time in air (s)**

**Materials used**