STEM @ HOME ACTIVITY

Parachutes

Challenge: Students work in teams of two to construct the parachutes as specified. Various numbers of large paper clips are added as the load for the parachutes.

- One student drops his or her parachute from a specified height (dropping from the mezzanine of a gymnasium works well), while another student times the drop from the point of release to the load landing on the floor.
- Record the time for each number of paper clips. Also record any observations of parachute performance with various loads.
- Calculate average velocity by dividing the height of the drop by the time.

No. of Paper Clips	Height (m)	Time (sec)	Average Velocity (m/sec)
5			
10			
15			
20			
25			

Discussion: Judging by the graph, at what point will the parachute be of little use due to the mass of the paper clips? How would you construct another parachute to withstand more mass?

ART CONNECTION

Roll out a piece of butcher paper out as the drop zone. Have students use washable paint balls as the load and drop onto the butcher paper for splatter art! Students can compare how the spatters look from different heights and different weights. Students can also create imaginative drawings on the paper after the paint splatters dry.