Skydive into Forces

Name: _____

Date: _____

Student worksheet

Directions: Complete the steps below to prepare for the experiment.

1. Draw a falling skydiver.

Falling without parachute	**Checklist:**
	☐ Draw the skydiver falling. ☐ Draw why the skydiver falls. (*Hint*: What causes the pull?) ☐ Draw how fast the skydiver moves.

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2. Draw and describe how and why you predict the parachute allows a skydiver to land softly.

Falling with parachute	**Checklist:** ☐ Draw the skydiver falling and the parachute. ☐ Draw why the skydiver falls. (*Hint*: What generates the pull?) ☐ Draw how fast the skydiver moves.
Briefly explain why you think a parachute allows for a softer landing.	

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Name: _____

Directions: Watch the video and create and test a model parachute.

3. Choose the shape and size of your canopy: a square with side length between 10 and 40 cm **OR** a circle with diameter between 10 and 40 cm.

   Our canopy is a _____ of _____
   (shape) (size)

4. Record if your figure lands soft, hard, or in-between (medium) by circling the correct word in Table 1.

Table 1: Data of how the figure lands.

	Trial 1	Trial 2	Trial 3	Trial 4
Drop with parachute	Soft Medium Hard	Soft Medium Hard	Soft Medium Hard	Soft Medium Hard
Drop without parachute	Soft Medium Hard	Soft Medium Hard	Soft Medium Hard	Soft Medium Hard

5. Can you see a pattern in your data? What can you conclude?

6. Now that you have done the experiment, use the next page to draw and describe how and why you think the parachute allows a skydiver to land softly. Has your explanation changed?

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Name: _____

Directions: Complete the sections below about your experiment.

Falling with parachute	**Checklist:** ☐ Draw the skydiver falling and the parachute. ☐ Draw why the skydiver falls. ☐ Draw how fast the skydiver moves. ☐ Draw what slows down the fall.
Briefly explain why you think a parachute slows a fall down and thus, allows for a safe landing.	