Name: _____

STEM Worksheet: Grades 5-6

A problem to solve

How could engineers let people experience the thrill of skydiving, without ever going up in an airplane?

1. How could they create enough air flow to get someone off the ground and into the air?

How do *you* think the tunnel generates all that air flow?

_____

_____

Where are the fans located? _____

How many fans are there in our tunnel? _____

2. What features would engineers need to think of when designing the tunnel?

Safety

_____

_____

Heat

_____

_____

Energy

_____

_____

3. Moving air causes forces. Draw an arrow and label the forces that act on a skydiver

4. How does a parachute affect a skydiver?

_____

_____

Parachute Investigation

In groups you will be aiming to create a parachute that will have the longest drop time.

String length and weight are supplied; however, the shape, material and attachment of your parachute are **variables** your group will decide on.

SHAPE:	
STRING LENGTH:	30cm
WEIGHT:	Pom pom
MATERIAL:	
ATTACHMENT	

PLANNING THE INVESTIGATION

What shape and material are the best for a parachute? Give reasons why.

_____

_____

_____

This is what I predict will happen

_____

_____

WHAT DID THE INVESTIGATION FIND OUT?

Did you parachute perform as you predicted? Why/Why not?

_____

_____

_____

What are some improvements you would make if you completed this task again?

_____

_____

_____