

GROUP DATA SHEET

Paper Helicopters and the Methods of Science

Your Name: _____ Today's Date: _____ Grade: _____
 School's Name: _____ Teacher's Name: _____

1. WHAT HELICOPTER DESIGN DOES YOUR GROUP HAVE?

Circle One

Box Elder	Maple	Pine	Ash
-----------	-------	------	-----

2. MAKE YOUR HELICOPTER!!!

Don't lose this Group Data Sheet – Just set it aside until your helicopter is complete.

3. JOB ASSIGNMENTS FOR HELICOPTER FLIGHTS!!!

JOB ASSIGNMENT

Student Name	Flights 1 & 2	Flights 3 & 4
	pilot	timer & data recorder
	timer & data recorder	pilot

4. MAKE A PREDICTION

Which helicopter design do you think will descend the fastest with no added weight (paper clips)?

5. CONDUCT THE EXPERIMENT

Drop your helicopters and collect your data in the table below.

Descent Time (seconds)

Treatment	Flight 1	Flight 2	Flight 3	Flight 4	=	Sum (add descent times for all 4 flights of each treatment)	Average Descent Time
Control (no paperclip)					=		
1 paperclip					=		
2 paperclips					=		

To get the average descent time for each treatment, add the 4 flight times together and divide by 4

The entire class will now share their data and interpret the results of the experiment.

My Observations from Activity 1

Paper Helicopters and the Methods of Science

Your Name: _____

1) Name the helicopter design you tested: _____

What part of a plant was represented by your helicopter model? (*circle one*)

flowers

seeds

leaves

2) Name the **control treatment** used in your group: _____

3) What **unit** of measurement did you use to measure descent time? _____

4) Which treatment resulted in the fastest decent time for your helicopter? _____

On average, how fast did the control helicopter descend? _____

On average, how fast did the helicopter in treatment #2 (2 paperclips) descend? _____

5) Compare the descent time of *your helicopter design* with the descent time of *other helicopter designs tested in your class*.

Which of the 4 helicopter designs descended the fastest under control conditions? _____

6) Name an **independent** variable tested in this experiment. (*Hint: think about the variables that YOU or YOUR CLASSMATES manipulated in this activity.*)

7) Name two additional **independent** variables that you could change on your helicopter design that might make it descend faster.

(a) _____ (b) _____

8) Name the **dependent** variable that you measured in this experiment.

9) Name two additional **dependent** variables that would be interesting to measure when flying paper helicopters.

(a) _____ (b) _____