

# HELICOPTER FLIGHTS

## *The Question*

*How does the mean time it takes for a helicopter to fall to the floor change as the height from which it is dropped increases?*

## *Materials*

- Helicopter Template
- Stopwatches
- Measuring tapes or meter sticks
- Paper clips (for varying weight) or medium-sized binder clips for outdoor drops
- Masking tape (to mark drop heights on vertical wall)
- Cards, dice, or random digit table

## *Experimental Design*

Describe in detail how you will collect your data. Include the number of trials you will conduct at each height, the heights you will use, and how you will randomize these. Also address the issue of how the helicopters will be dropped (technique for dropping and who will do the drop) and how the descent will be timed (number of timers). Explain possible sources of variability in your data and efforts you will make to reduce effects of possible confounding variables. Describe the scope of inference for your results.

## *Data Collection*

As your group collects data, record the drop height and time for each drop. You may use the attached Student Data Sheet or create a similar data sheet to be consistent with the design of your experiment.

# STUDENT DATA SHEET

(Height is measured in meters, time in seconds)

Trial	Height: ____	Height: ____	Height: ____	Height: ____	Height: ____
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					