



## Challenge: Operation Helo

### Each group will need:



Paper



Scissors



Ruler and pencil



Something to measure time with  
e.g. stopwatches or anything you can  
record time with



Helicopter template



1 paper clip per helicopter



Teacher slides

### Additional ideas to explore:

- Using different paper
- Changing the weight by adding more paperclips
- Cutting the blades so that there are more rotor blades
- Changing the shape of the blades by cutting or adding more paper to them
- Scaling up or down the basic template to make it bigger or smaller
- Changing the length of the helicopter blades

### The challenge:

1. Students can either use the pre-printed template or draw the helicopter shape with the ruler on their paper. They'll then need to cut it out, fold it, and add the paper clip as a weight.
2. Let them test the helicopter by dropping it. Get them to time how long it takes to reach the ground.
3. Challenge them to come up with a way to change the basic helicopter to see if it will remain in the air for longer.

***The helicopter that takes the longest time to reach the ground is the winner!***

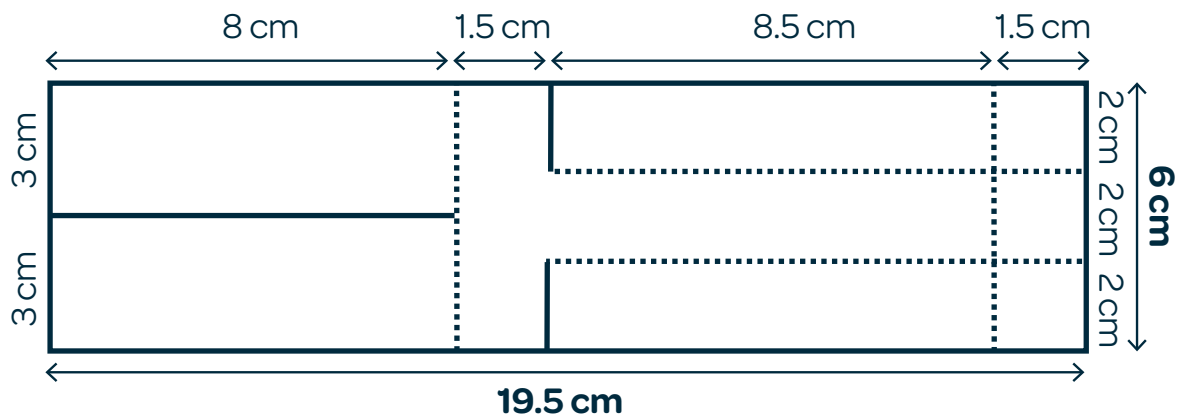
**Ask your students what they think would happen if they folded the helicopter blades in opposite directions...  
It spins the other way!**

## TEACHER INSTRUCTIONS



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## Template diagram:



— Cut along solid lines

⋯ Fold along dotted lines

## Instructions:

