



# Paper Spinners

We have experimented with paper spinners.

We have decided to change:

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We have only changed **one** thing to make it a **fair** test.

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We recorded the **time** it took the spinners to drop.

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We repeated the test **three** times to work out the **average** time.

<u>First Drop Time</u>	<u>Second Drop Time</u>	<u>Third Drop Time</u>	<u>Overall Drop Time</u>	<u>Average Drop Time</u>

Here are the result of the other tests:

<u>Change</u>	<u>First Drop Time</u>	<u>Second Drop Time</u>	<u>Third Drop Time</u>	<u>Overall Drop Time</u>	<u>Average Drop Time</u>

**Conclusion:** The **best** spinner, with the **greatest air resistance** :

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# Air Resistance – Paper Spinners

## Experiment

### Experiment 1

1. Give out the Paper Spinners Template. Show the children how to make the paper spinner.
2. Drop the spinner and ask the children to observe carefully.
3. Drop it again. Ask the children to describe anything they notice about it: how fast it falls, whether it turns, whether it falls differently at the start.

### Experiment 2

4. Explain that we want to make the best possible paper spinner. Brainstorm different things we could change about the spinner – **size, type of paper, number of paper clips, length of the wings**. Record ideas on whiteboard.
5. Divide into 4 groups and each change **one variable**:  
Group 1 : size  
Group 2 : type of paper  
Group 3 : number of paper clips  
Group 4 : length of wings
6. Ask the children to record on **WorkSheet**.
7. Discuss results.