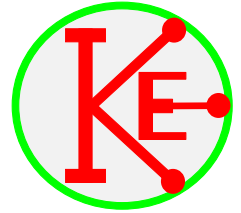


## 4 Spinners



### EQUIPMENT

To make the spinners they will need:

- A4 Paper
- Some 4cm wide strips of paper.
- 30 cm ruler
- Metre ruler
- Paperclips or Blu-Tack
- Scissors
- 1 ready-made spinner to show the children how they work
- Stopwatches
- (Other types of paper and card)
- Selection of winged tree seeds.
- Magnifying glasses

### RISKS

It can be useful to drop the spinners from a height greater than a student's height.

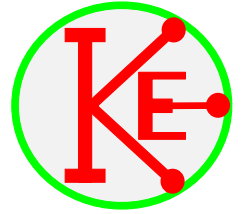
Students should be aware of the dangers and not stand on chairs or tables to launch their spinners unless very closely supervised.

Students need to handle and carry scissors in a safe manner.

Students should wash their hands after experimenting with the seeds.

Beware of paper cuts.

# Spinners



NAME: .....

## Examine different winged tree seeds.

Draw below a sketch of the seeds.

Label the wings and the actual seed.

How long does it take for a winged seed to fall 1m? .....

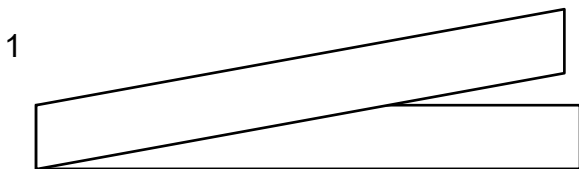
Which way round do the seeds spin? .....

What makes the seeds spin as they fall? .....

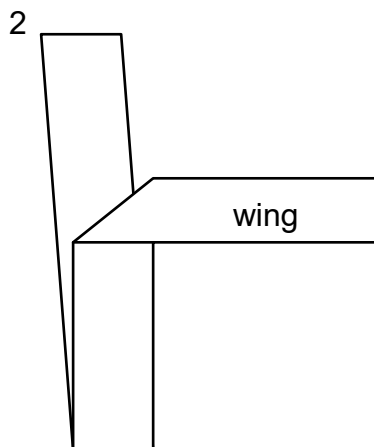
## Make a paper spinner

Cut a strip of paper 4cm wide.

Fold it as in the diagram below.

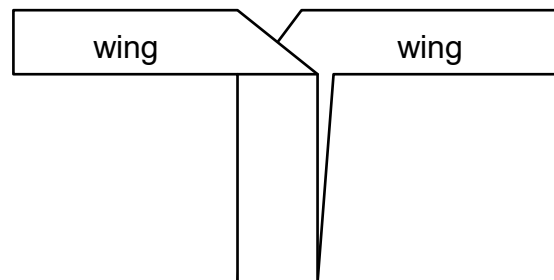


Fold in half.

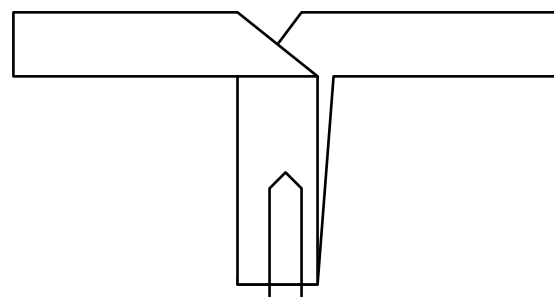


Fold the top piece to the right to make a wing.

3 Turn paper over and repeat.



4 Attach a paper clip to the bottom.



How long does it take for your spinner to fall 1m? .....

Add another paper clip. Does it take more or less time to fall 1m? .....

Investigate what happens if the wings are longer or shorter.

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Investigate what happens if the wings are folded at different angles.

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Investigate what happens if the spinner is wider or thinner.

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