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| <b>Topic:</b> Forces | Primary 6<br>Age 9-10 | <b>Title of example:</b><br>Paper drop results |
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### Scientific skills focus

#### Carry out:

Makes observations and collects information and measurements using appropriate devices and units.



### Curriculum link

By investigating how friction, including air resistance, affects motion, I can suggest ways to improve efficiency in moving objects.

SCN 2-07a

### Example

To explore the effect of air resistance, the class planned an investigation into dropping folded A4 paper.



The children were asked to work in 3s, taking turns to drop, time and record their results.

| Number of Folds | Time 1 (sec) | Time 2 (sec) | Time 3 (sec) | Av. (sec) |
|-----------------|--------------|--------------|--------------|-----------|
| 0               | 4.28         | 3.72         | 5.22         |           |
| 1               | 4.31         | 3.16         | 3.94         |           |
| 2               | 2.65         | 2.60         | 3.13         |           |
| 3               | 1.75         | 2.06         | 1.84         |           |
| 4               | 1.43         | 1.37         |              |           |
| 5               |              |              |              |           |



Children meeting the objective would be able to use the timer to measure the fall and record their results in a table (to 2 decimal places, as agreed in class).

Discussion comparing group results revealed that all were finding a similar pattern of more folds dropping more quickly (less air resistance), which was further tested as a class, by dropping a full set of papers at the same time.



Example from Mearns Primary School, East Renfrewshire