

**Cwhy** how? BATH SPA UNIVERSITY

TAPS-NI Progression in Science Skills

Topic:	Primary 3/4	Activity title:	
Flight	Age 6-8 years	Cupcake parachutes	
Science skill focus Planning		Curriculum link: Movement and Energy Dropped objects move downwards (ME3)	

#### **Progression Focus**

- Can children make suggestions and raise questions?
- Can children turn their questions into a form which can be investigated?

### Activity Today we are materials engineers.

Provide a collection of different sizes of cupcake cases. Select two and ask children to predict which will land first when they are dropped. Hold one in each hand and drop to compare. Raise and record as many questions as possible while discussing different tests to try: different heights, cupcake sizes, face up/down, more than one case together, flattened, with/out hole etc.

Ask pairs/trios to select one question to investigate and plan what they will do. Pause to discuss findings as appropriate.

# Adapting the activity

**Support:** Provide a question stem: What will happen if...? Support pupils to select a small number of cake cases to compare.

Extension: Measure size of cupcake cases. Describe patterns in predictions and results.

**Other ideas:** Try different parachute materials and sizes. Linked scientist: Sebastien Lenormand, first recorded parachute jump in 1783.

# **Questions to support discussion**

- What do you think will happen?
- What else could we try?
- What questions could we investigate?
- Which question would you like to focus on?
- How will you test that?
- What do you plan to do first?
- Have you adapted your plan?



# **Pupil learning indicators**

Not fully achieved: Pupils put forward a range of ideas, but find it difficult to focus on one line of enquiry.

Achieved: Pupils generate a range of ideas and questions. They choose a question and focus on this in their planning and investigation e.g. *my question is will the small bun cases work, so we're going to drop a small one and a big one to see if the small one works.* 

**Exceeded:** Pupils might begin to investigate patterns, e.g. *I'm seeing if the flatter the bun case the slower it will go but I have to make sure I drop them from the same height.*