Outdoor lesson

primary

Bird ballistics

Taking ‘angry birds’ outside

Great for...

- **Maths** calculations, processing, representing and interpreting, position and movement, measurement
- **Design and technology** developing, planning and communicating ideas, working with tools, equipment, materials and components, evaluating processes and products

Activity

1 Create a catapult with which to propel the birds. Use a large, sturdy branch with a V or U shape towards the top or construct something similar. You could test out a few different elastics to find the one that works best. Bungee cords are pretty good!

2 Make your ‘birds’ by filling each balloon with the same amount of water.

3 Start with a few trial runs. Getting the angle of release is vital in order to aim the birds – too low an angle and the birds do not fly very far, too high an angle and they will travel up into the air but then drop straight down. The most effective angle for long shots is 45 degrees.

4 Measure how far each bird has travelled before landing. Each should end up in roughly the same place. Ask the children to guess where the birds will land if you:
- alter the angle of release
- alter how far back you pull the catapult
- alter the size of the birds.

What you need

- **A large catapult** or equipment to make one
- **Balloons**
- **Felt tip pens** to decorate balloons with (optional)
- **Water and a measuring jug**
- **Tape measure**

Preparation

- Upload the ‘angry birds’ game and let the children try it out.

Less challenging

- Provide the group with ‘birds’ and/or pre-made catapults so that the focus is directed on the task rather than the construction of the elements.

More challenging

- In the computer game the angry birds are fired at pigs, often sitting in or on constructions that need to be demolished. The children could re-create some of these simple structures and work out the best point at which to aim.

Your notes

Use this space to evaluate the activity

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