SCIENCE FOR ONE

egg box

Activities for doing **practical science** while **respecting social distancing**

- Each activity sheet is based around **one easy to obtain resource**
- Children **work independently** but should be encouraged to talk in pairs or groups
- Any additional resources needed are minimal and easy to provide for each child
- Activities are **linked to topics** and suggestions are given for **three age ranges**
- The activities **can be done outside**.

Science with egg boxes

Egg boxes are a versatile science resource: they can be used whole (e.g. for collecting, identifying and sorting items, as bird feeders, or for growing seeds) and the individual chambers can be cut out and used separately as containers or moulds.

AGE 5–7 GET GROWING

The six chambers in an egg carton are ideal for comparative tests. Children can set up different conditions in each chamber and compare their findings. Give the children some seeds and encourage them to discuss with their partner what their seeds look like and what they might need to grow. Challenge the children to use their egg box to set up an investigation to find out about seed germination and plant growth.

The children could:

- Compare different types of seed, or numbers of seeds in each chamber
- Explore the effect of giving seeds different amounts of water
- Compare growing seeds on different surfaces, e.g. paper towel, fabric, sand, soil, the egg box itself
- Explore covering or half-covering the top of some of the chambers with black paper or other materials

They could also put their egg boxes in different parts of the classroom so they can make general comparisons with each other's findings.

Resources per child

- Egg box
- Seeds (e.g. cress, radish, pea)
- Beaker of water
- OPTIONAL – sand, soil, paper towel, fabric, black paper

Science explored

- Plants
- Observation over time

Interesting links

- Germinating seeds
- RHS School Gardening

why & how? PRIMARY SCIENCE TEACHING TRUST

AGE 7–9 CASTLES IN THE SAND

The children need to cut the chambers from their egg boxes. This can be done inside, but the activity should be completed outside.

Ask the children to think about sandcastles and discuss how they would build one, including what shape works best, and what they would need as well as sand. Challenge the children to use one of their egg chambers to make a sandcastle using only dry sand. Discuss what happens and explain that their challenge is to experiment to find the ideal proportions of sand and water for building a sandcastle that stays together.

The children could then investigate using individual sandcastles to build the tallest sandcastle or to create a model of a real castle. They could also try using salty water to see what difference this makes to their sandcastle.

Resources per child

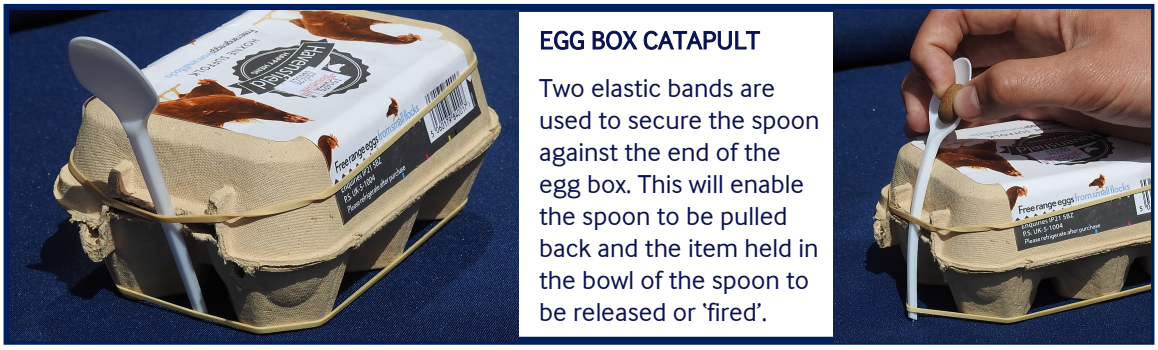
- Egg box
- Large beaker of sand
- Spoon
- Access to water
- OPTIONAL – small beaker or cylinder for more accurate measurement, salt

Science explored

- Materials

Interesting links

- How strong is sand?



EGG BOX CATAPULT

Two elastic bands are used to secure the spoon against the end of the egg box. This will enable the spoon to be pulled back and the item held in the bowl of the spoon to be released or 'fired'.

Resources per child

- Egg box
- 2 elastic bands
- Plastic spoon
- Items to fling, e.g. cotton wool balls, pompoms

Science explored

- Forces
- Planning an enquiry, controlling variables

Interesting links

- Lolly stick catapults
- Catapult making
- Snappy dragon activity from SSERC

AGE 9–11 EGG BOX CATAPULT

The children can make their catapults inside or outside, but the testing should be done outside. Explain to the children how to use their egg box to make the base of a catapult by securing a plastic spoon to an egg box using two elastic bands. Items to fling can then be placed in the bowl of the spoon and pulled back. When the spoon is released, the item will be flung forwards. If the egg box is not stable it could be weighted down inside with stones. The children should be well spaced out and all fire their catapults in the same direction.

Challenge the children to think about what could make their item go further or land on a target. This could include changing:

- the size or material of the spoon
- the size or material of the objects they fling
- how much they pull back on the spoon
- the angle of the box