

Poultry

Poultry farming in the UK involves farming poultry for meat and eggs. 860 million chickens are farmed for meat every year. Other types of poultry farmed are turkeys, ducks and geese.

Different types of chickens are reared for laying eggs from those which are reared for meat. Chickens reared for meat are called broiler birds. Poultry farmers in the UK produce 1.25 million tonnes of chicken meat – that is the same as the weight of almost 7,000 blue whales!



Chickens which lay eggs are called layers. One-third of chicken eggs come from free-range flocks. Free-range poultry farming allows chickens to roam freely for a period of the day, although they are usually shut up in sheds at night to protect them from predators or are kept indoors if the weather is particularly bad. Organic eggs are laid by chicken which are also free range but do not have additives put in their food and the chicken do not have their beaks trimmed.

The battery cage system for keeping hens was banned in 2012 in Europe as it was considered cruel and hens became stressed.



Battery cages have been replaced by furnished cages which are bigger and must include a perch, a dust-bathing area, scratch pads and a nesting area.

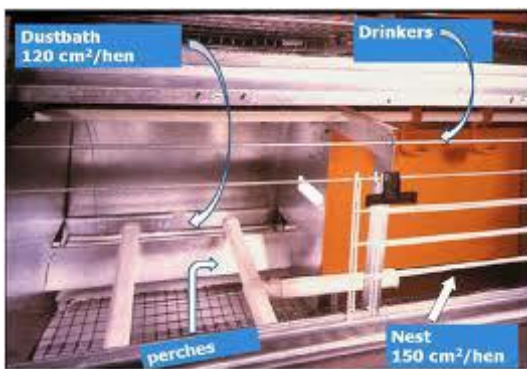


Figure 1 - Schematic representation of the furnished cages used in the experiment.



Broilers are chickens bred and raised specifically for meat. Chickens are one of the most common domestic animals, and with a population of 19 billion in 2011, there are more chickens in the world than any other species of bird. Typical broilers have white feathers and yellowish skin. Broilers are usually kept in large sheds.



Egg Activity

Problem - how can you get an egg into a ketchup bottle without breaking the egg or the bottle?

Objectives

To recognise the difference between how solids, liquids and gases flow and the volume that they fill.

To describe changes which happen when objects are heated or cooled.

To learn that temperature is a measure of how hot or cold objects are.

You will need:

Hot water

1 hard-boiled, shelled egg

Washing-up liquid

535g glass ketchup bottle, with a neck at least 3.5cm in diameter

Stop-watch

Digital camera (optional)

Safety – take the opportunity to reinforce safety messages when using very hot water

Discuss – show a pre-prepared egg in a bottle and show an ordinary hard-boiled egg and compare to width of bottle-neck

Ask – Can you suggest any ways of getting this egg into the bottle?

Use an adult to fill the bottle with very hot tap water and leave to stand until the glass is too hot to touch.

Pre-lubricate the egg with washing-up liquid to reduce friction (discuss)

Pour out the hot water and place the egg, pointed end down, onto the bottle neck as quickly as possible.

Suction should start work immediately, although it can take up to half an hour for the egg to be pulled into the bottle.

You could experiment with bottles of different volumes but the same neck diameter. Do larger bottles generate more suction? Why?

You can repeat the experiment with an un-shelled egg which has been left in vinegar overnight to soften the shell.

Scientific glossary

expand – to become bigger

contract – to become smaller

pressure - the force applied by one object on another

suction – ‘pull’ created by a region of low pressure