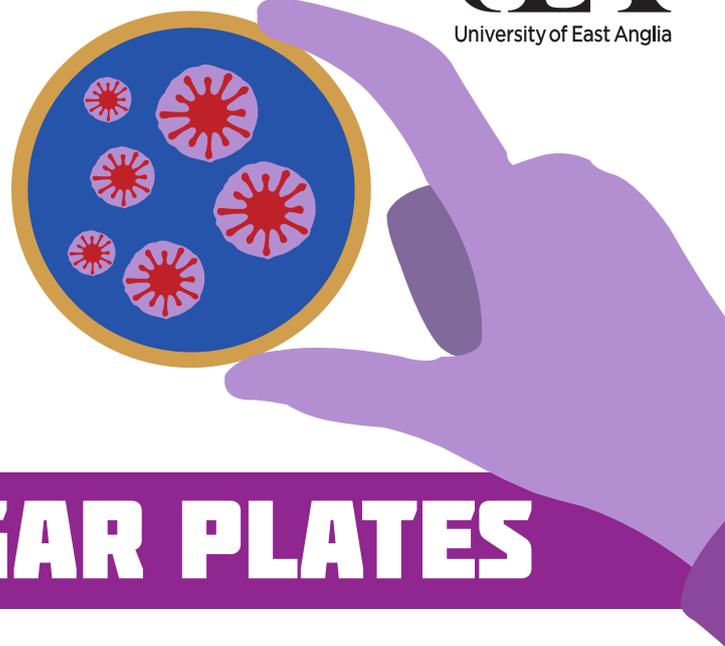


NORWICH SCIENCE FESTIVAL

At home



HOMEMADE AGAR PLATES

Agar plates:

In the lab, we grow microbes that we are interested in on agar plates. These are petri dishes which contain a jelly-like substance called agar, and all the nutrients (food) that the microbes need in order to grow.

In this activity, you can make your own petri dishes, which you can use to grow some of the microbes that live on the surface of the leaves in your garden or local park.

Warning – this activity involves the use of boiling water. Boiling water should only be handled by a responsible adult.

You will need:

- a responsible adult
- beef stock powder or cubes
- agar agar powder
- a teaspoon of sugar
- weighing scales
- saucepan, teapot or heatproof jug (ideally two of these)
- jam jar lids
- plate, bowl or Tupperware container
- clingfilm
- kettle and boiling water

Activity:

First, add 10 grams of beef stock powder or cubes, 1 teaspoon of sugar and 1 teaspoon of agar agar powder to your saucepan, teapot or heatproof jug.

Dissolve the beef stock, sugar and agar agar in 200ml (about 1 cup) of boiling water.

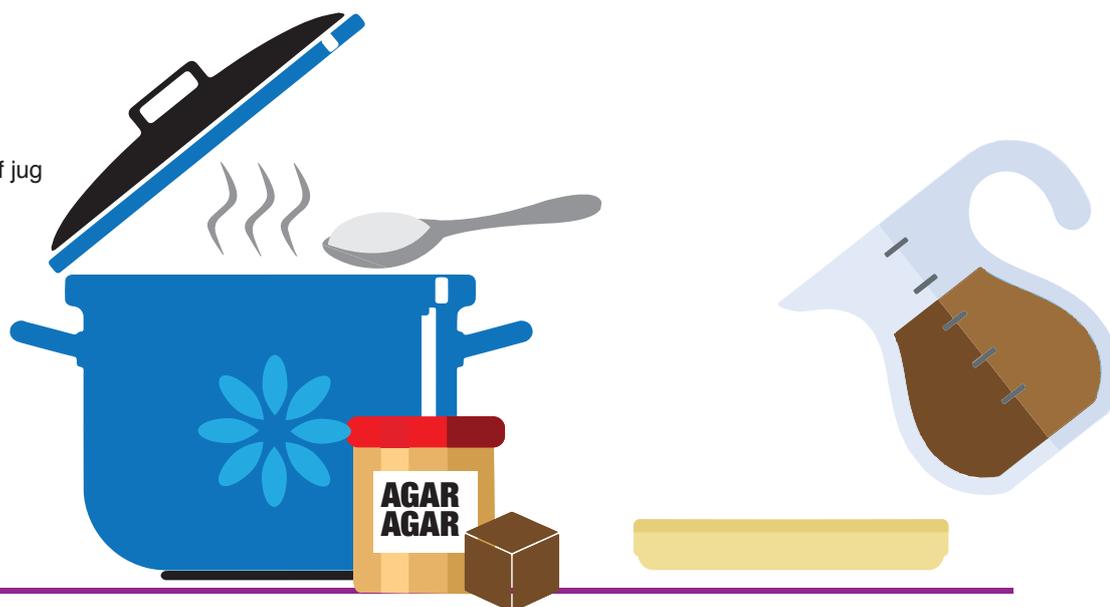
Meanwhile, sterilise your jam jar lids by dipping them in a jug or saucepan of boiling water.

Remove your jam jar lids from the boiling water (use tongs, or pour away the hot water and remove carefully once cool). Don't touch the inside of the jam jar lid or you will contaminate it with the microbes on your fingers!

Immediately pour your hot mixture of stock, sugar, agar agar and water into the jam jar lids. Then, cover the lids with a plate, bowl or Tupperware container to protect them from microbes in the air.

Leave your homemade agar plates to set. When they have set, quickly remove the plate, bowl or Tupperware container and cover them with cling film. Do not touch the set agar, or you will contaminate it with the microbes on your fingers.

To use your agar plates, check out our 'Plant Printing' activity sheet! You can do this straight away, or pop your agar plates in the fridge for a few days until you are ready to use them.



This activity sheet was written by Helen Brabham and Josephine Maidment, researchers at The Sainsbury Laboratory. The Norwich Science Festival at Home activity sheets were brought to you by the University of East Anglia and the Norwich Research Park. For more information, visit norwichsciencefestival.co.uk.