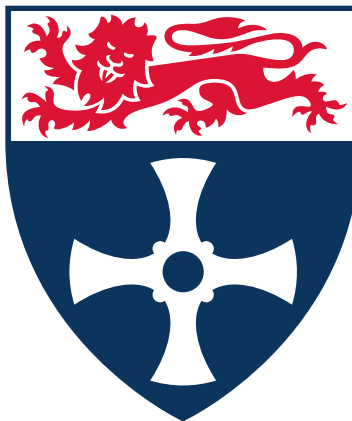


Newcastle University

School of Maths, Stats, and Physics



Planet Making

Instructions for activity leaders

Not for distribution to students

This is a fairly free-form activity, which can also be run as a drop-in stall. Set up two sections, one for assembling the planet and one for decorating. If you have space, you may wish to split the planet assembly into separate sections for rocky and gaseous planets.

Assembly

Rocky Planets

Set out a selection of coloured balloons, a tray of scissors, a large tub of dry rice, several plastic jugs, empty water bottles, and funnels. Leave the Planet Making posters with this station.

Participants should:

- Select two balloons of the colour they want for their planet.
- Use a plastic measuring jug to scoop some rice out of the tub.
- **Using the funnel**, fill a water bottle to the marked line (about 5 cm). Do this over a tray to catch any spills.
- Remove the funnel from the bottle
- Partially inflate one of the balloons, and stretch the end of the balloon over the neck of the bottle. Twisting the neck of the balloon before hand will help to keep it inflated.
- Invert the bottle and balloon, and allow all the rice to transfer.
- Remove the balloon, and snip off the neck.
- Snip the neck off the second balloon, and stretch it over the first to cover the opening.

Gas Giants

Set out a selection of coloured balloons, a tray of scissors, and a large container of fibre stuffing (you will need more than you think). Making a gas giant will require help from another person (participant, parent/guardian, or activity leader).

Participants should:

- Select two balloons of the colour they want for their planet.
- Snip the neck off both balloons.
- Ask a friend to hold one balloon open.
- Stuff the balloon with fibre stuffing until it is the desired size. This will take a lot of stuffing. Release the balloon to check the size, and add more stuffing if necessary.
- Stretch the second balloon over the first to cover the opening.

Decoration

Set out a selection of coloured paper, foil, pens, glue, glitter, and cotton wool, as well as a tray of sand. Leave the Planet Decorating posters with this station, and leave several trays for catching any spills. Participants should be encouraged to think about what features their planet might have, or to recreate a planet (real or fictional) based on the example images provided. Leave out or keep separate some bamboo skewers for making moons and rings, depending on the age of the participants.

Participants might want to:

- Rocky Planet** Coat their planet in glue, then roll in the tray of sand to create a rocky surface.
- Icy Poles** Glue the areas of their planet which they would like to be icy, and roll in/sprinkle with glitter.
- Clouds** Pull apart cotton wool and glue to the planet to create clouds.
- Thin Atmosphere** Wrap with cling film for a thin but varied atmosphere.
- Rings** Cut a ring from coloured paper or foil. Push a bamboo skewer all the way through the planet, trim to length, and tape the ring to it.
- Moon** Colour a cotton wool ball with a pen, and glue it to a bamboo skewer or cocktail stick, and push the skewer into the planet.
- Decorate** With coloured pens, paper, foil, and anything else they can think of.