

Exoplanet

You'll need:

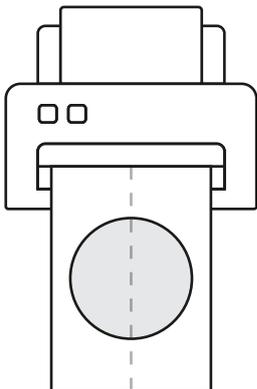
- A printer
- Scissors
- Sticky tape
- Paint in different colours
- A sponge for each paint colour
- A painting surface (thick paper or card recommended)

Exoplanets are planets beyond our Solar System. While some of them orbit stars, others are free-floating and are called *rogue planets*.

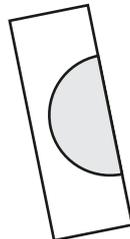


Ask a parent or guardian for help with sharp objects

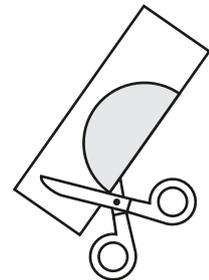
Step 1: Create your stencils



a. Print the stencils on pages 4, 5, 6 and 7.



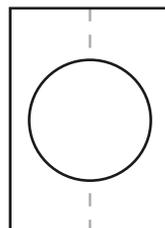
b. Grab the first stencil and fold the page in half along the dotted line



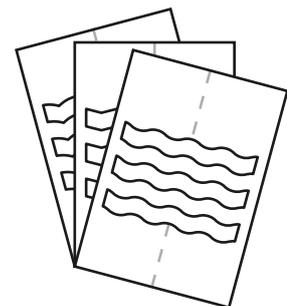
c. Cut along the solid line marked with 



d. Discard the inner shaded area

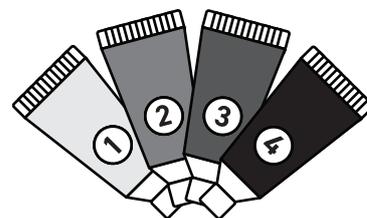
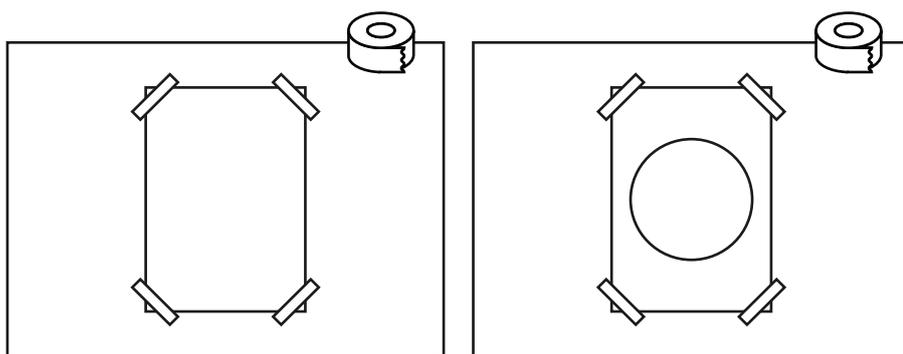


e. Unfold the stencil



f. Repeat steps **b** to **e** with the remaining stencils

Step 2: Prepare your surface

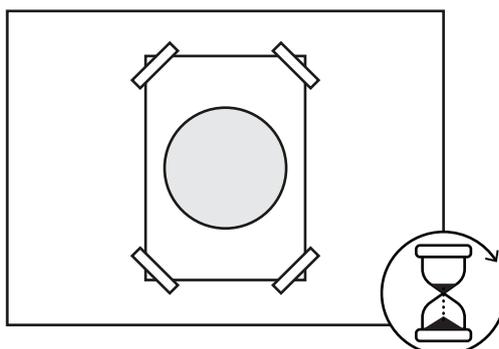
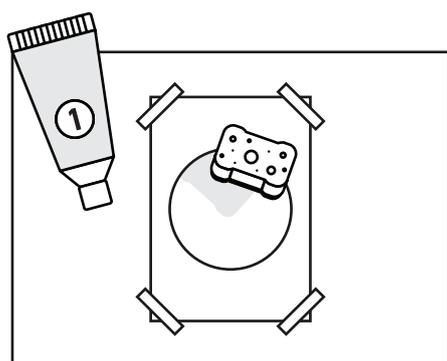


g. Fix your painting surface onto a table using sticky tape

h. Tape the circular stencil on top of your painting surface.

i. Select the paint colours for your exoplanet

Step 3: Paint your exoplanet

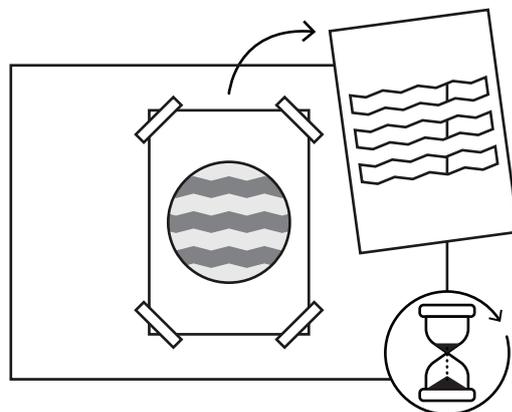
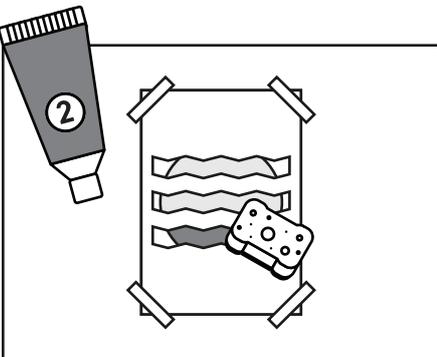
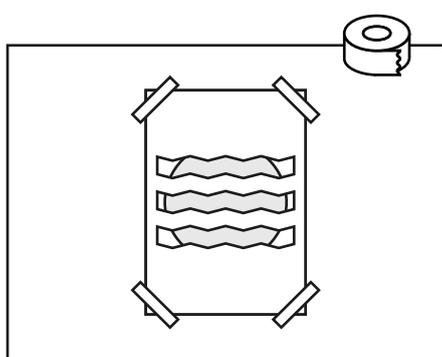


Tip: Cut your sponge into smaller pieces to save material. You can also experiment using different objects and types of paint to discover other textures.



j. Using a sponge, gently dab paint on to the surface

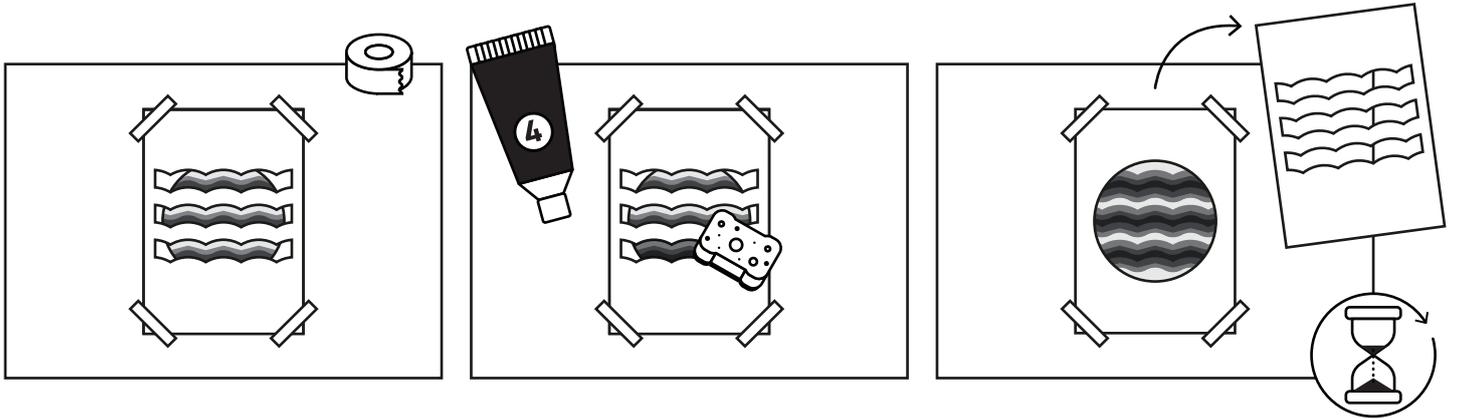
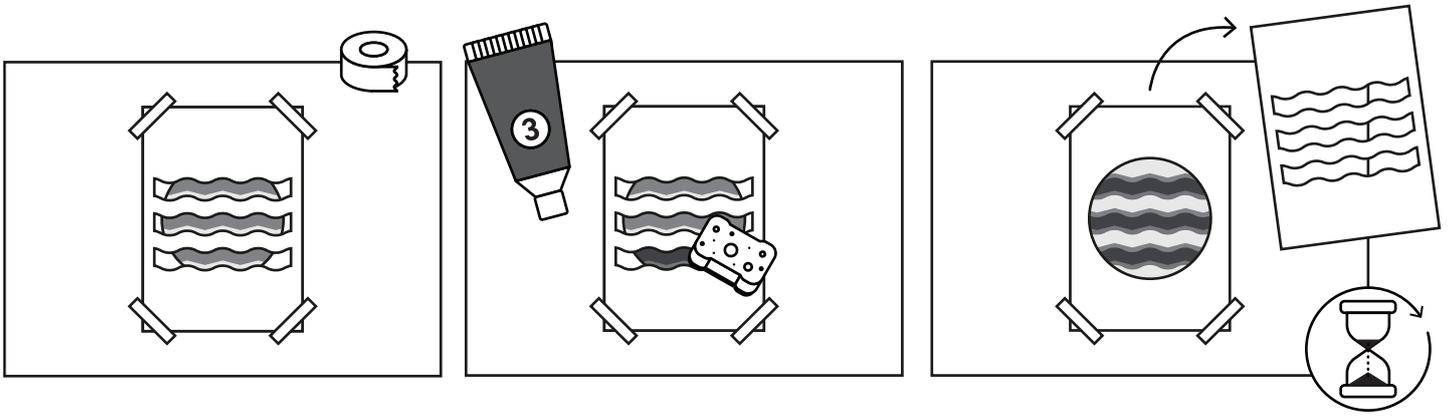
k. Allow the paint to dry



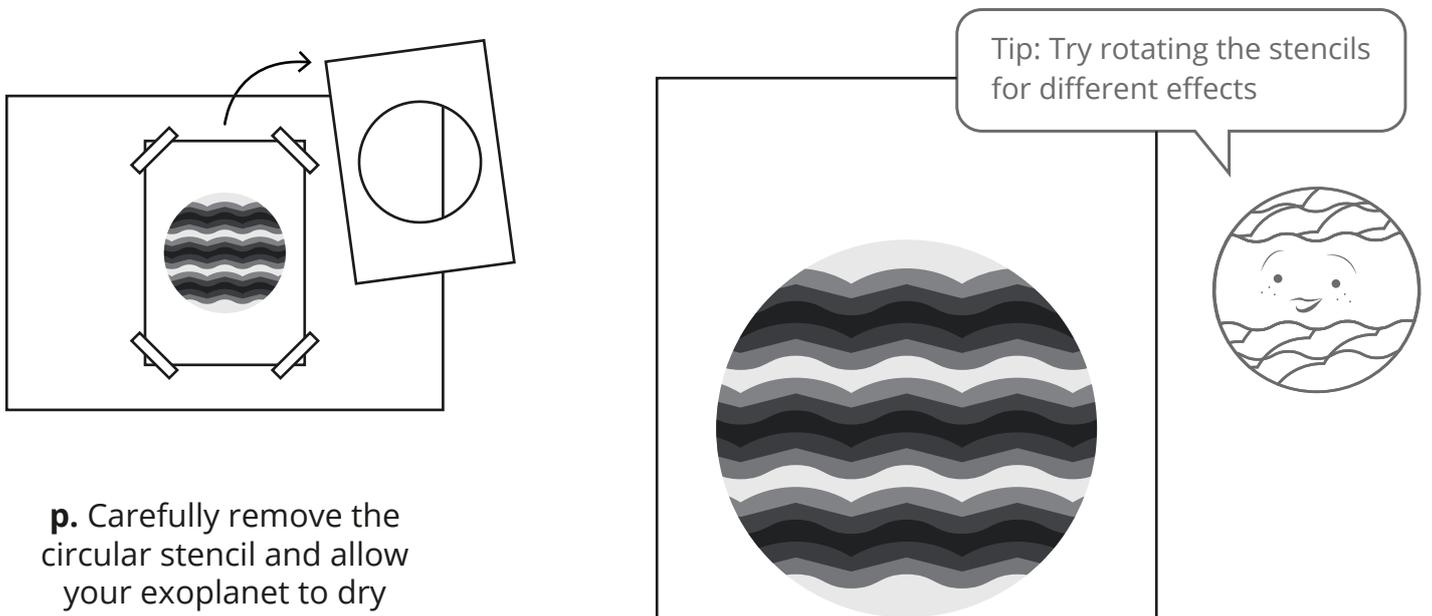
l. Layer another stencil on top and secure it with tape.

m. Using a sponge, gently dab paint on to the surface

n. Carefully remove the stencil and allow the paint to dry



o. Repeat steps **l** to **n** with the remaining stencils.



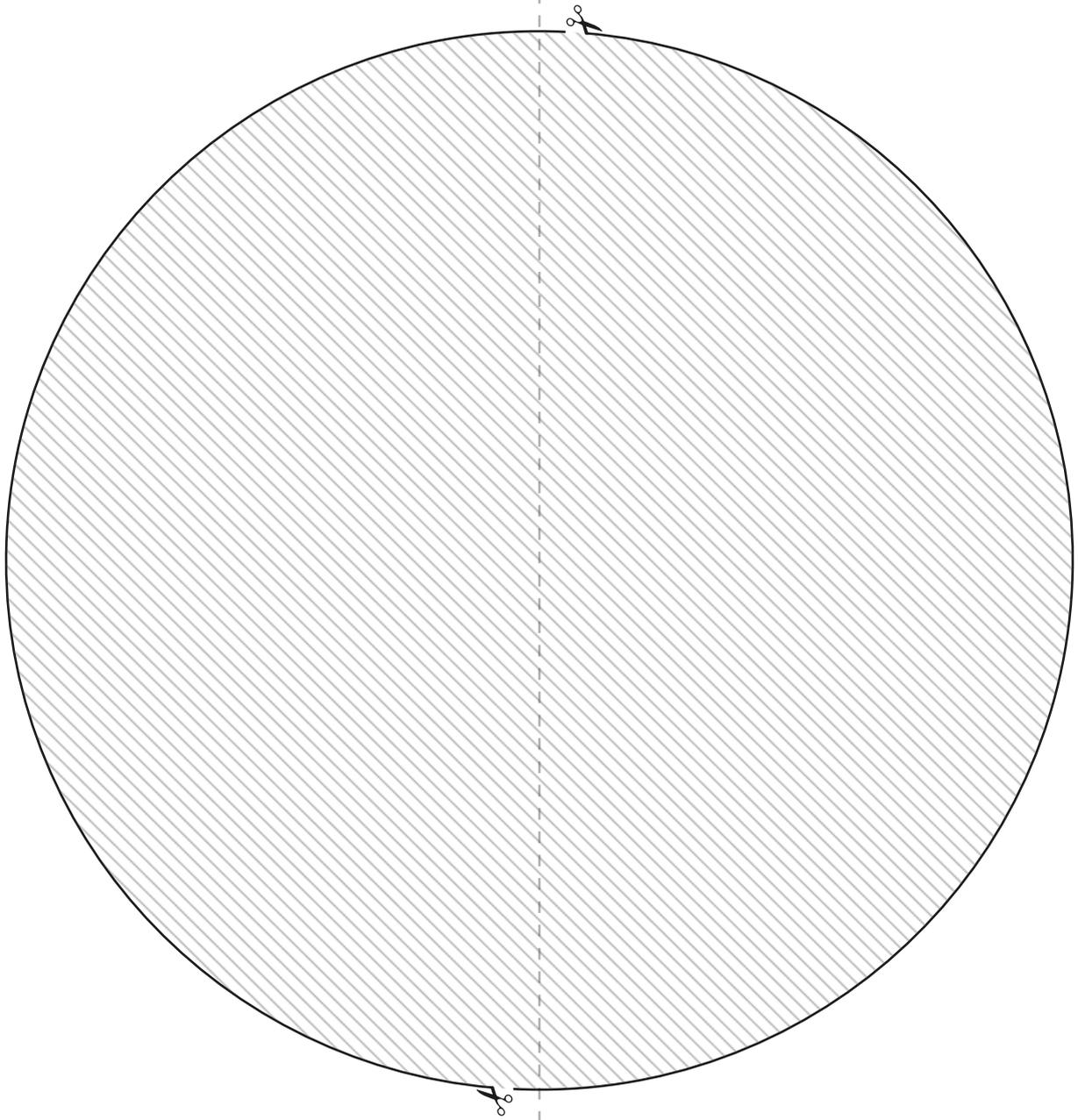
p. Carefully remove the circular stencil and allow your exoplanet to dry



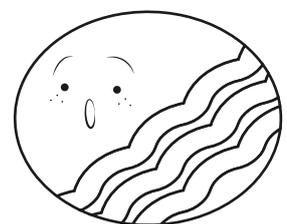
Once your exoplanet is done, create an awesome background by drawing some stars, moons, or even aliens around it!

Circular Stencil:

1. Fold page in half along dotted line
2. Cut along solid line marked with 
3. Discard the inner shaded area

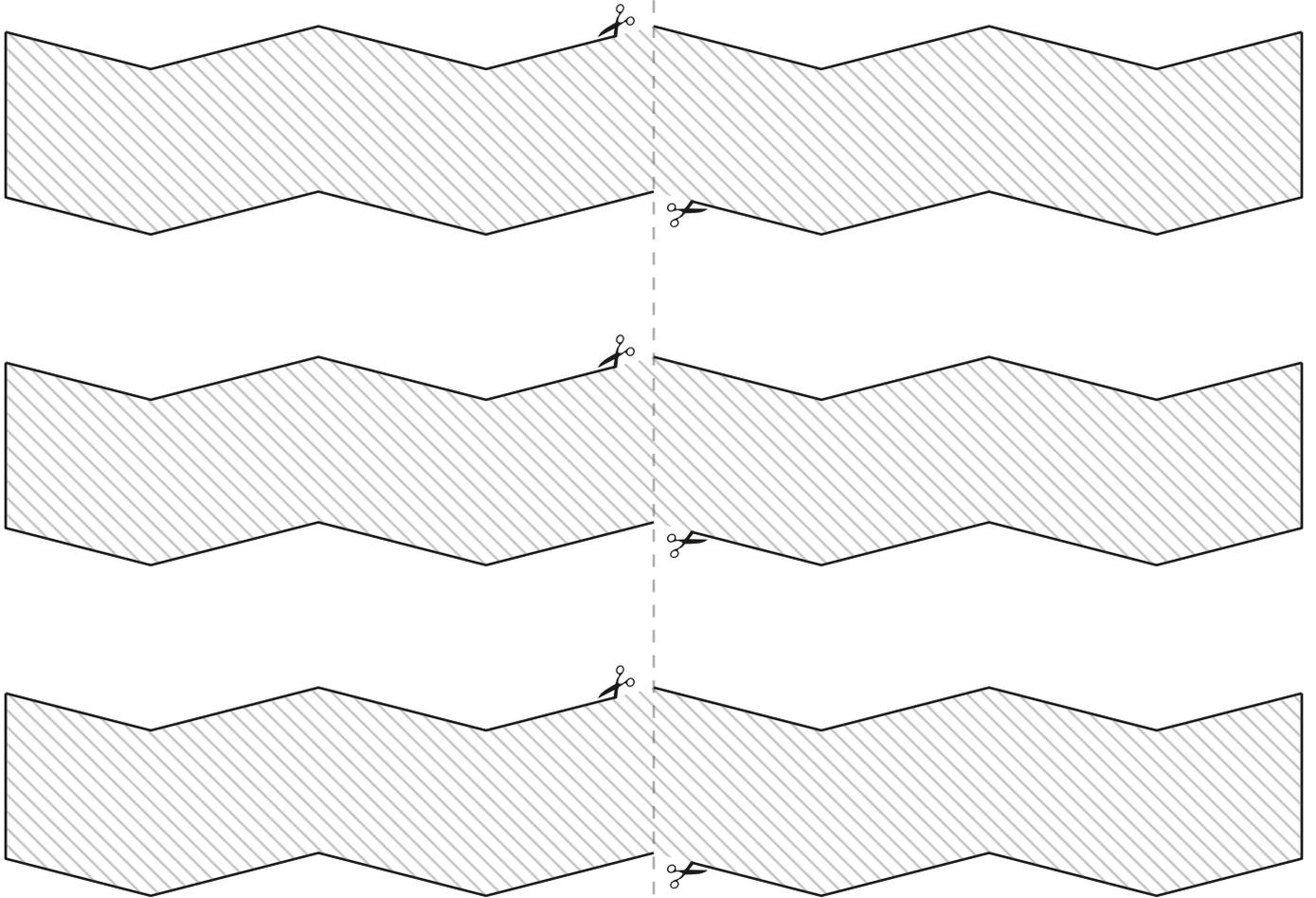


Don't worry if your circular cut-out isn't perfect. In 2008, scientists discovered WASP-12b, an exoplanet so close to its parent star, it's been stretched into an egg shape!

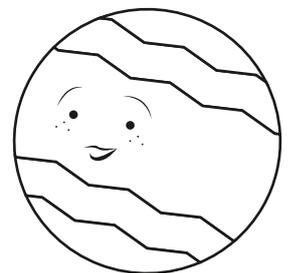


Terrain Stencil:

1. Fold page in half along dotted line
2. Cut along solid line marked with 
3. Discard the inner shaded areas

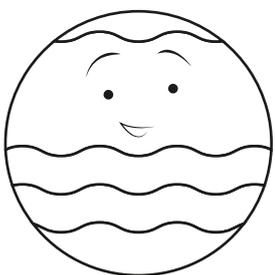
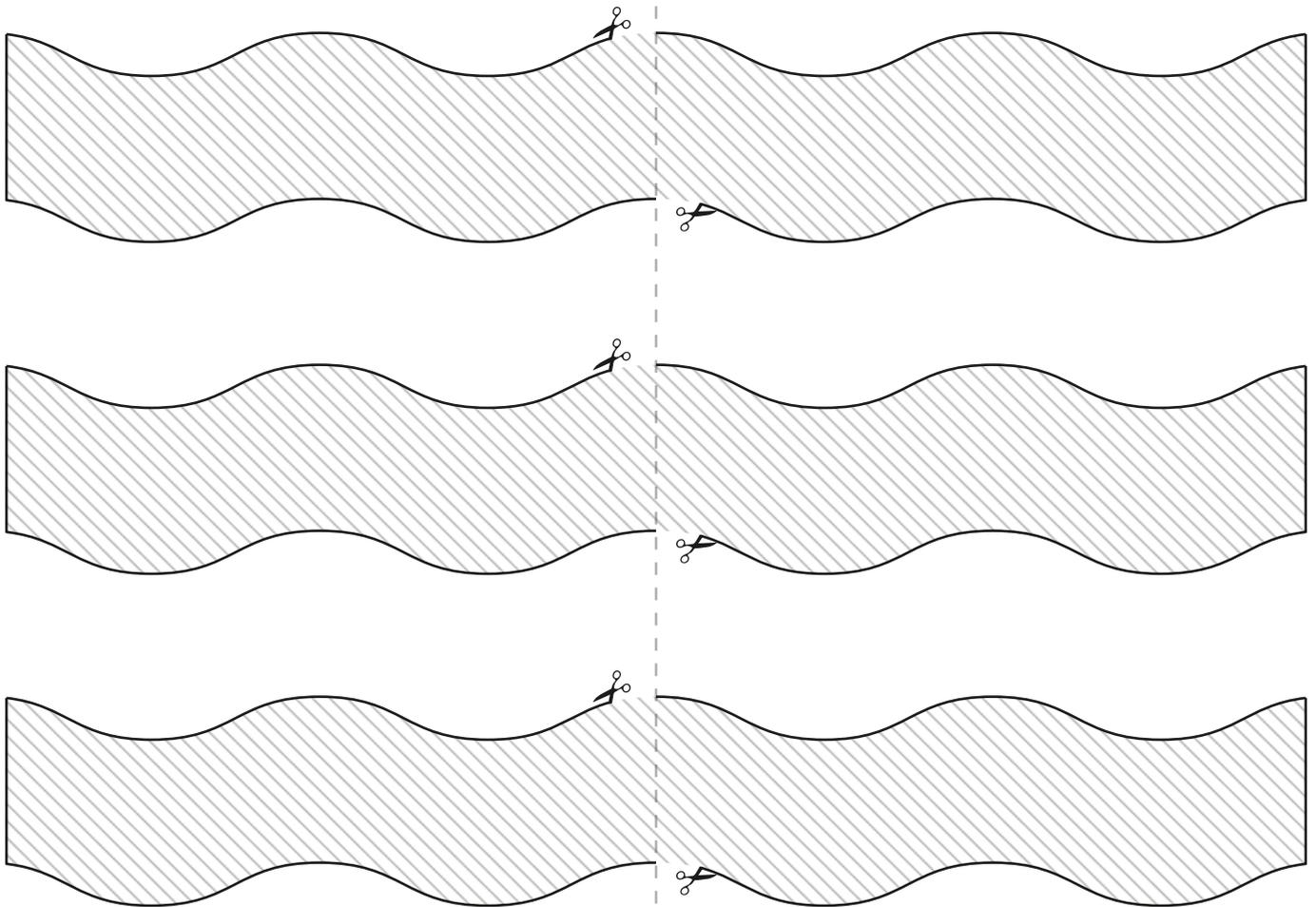


Terrestrial planets are rocky worlds. Scientists believe some terrestrial exoplanets could have atmospheres and oceans similar to ours. The larger planets of these category are classified as *super-Earths*.



Ocean Stencil:

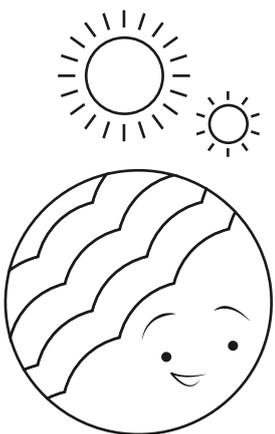
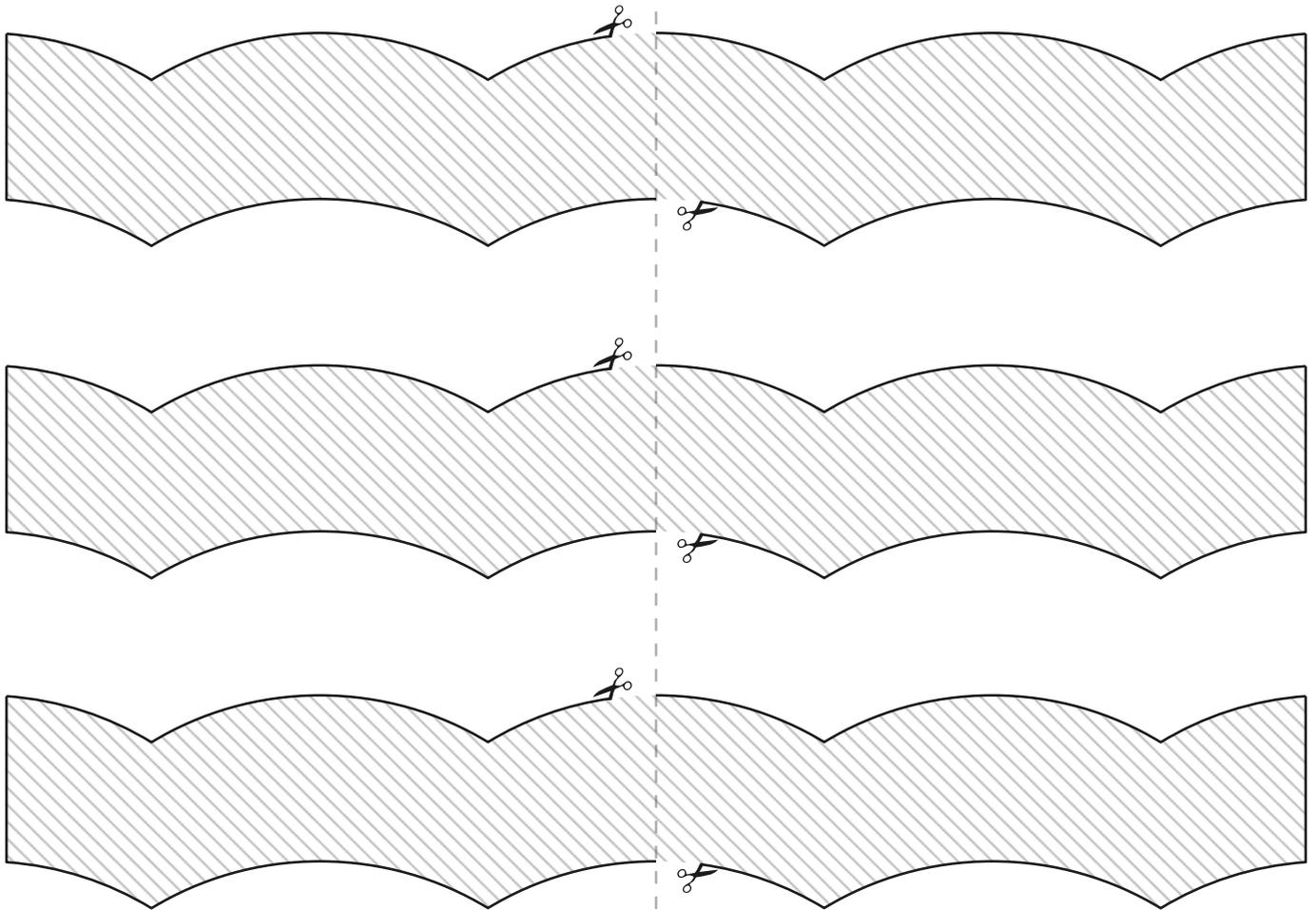
1. Fold page in half along dotted line
2. Cut along solid line marked with 
3. Discard the inner shaded areas



Ice, water vapor, and oceans on other planets offer clues in the search for life beyond Earth. Kepler-22b, discovered in 2011, is believed to be a massive *water world* covered in a super ocean!

Clouds Stencil:

1. Fold page in half along dotted line
2. Cut along solid line marked with 
3. Discard the inner shaded areas

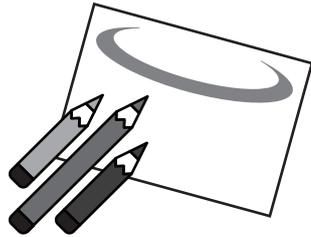


Some exoplanets are mostly composed of gas. Kepler-16b, for example, is considered a *gas giant*. This cold planet is part of a double-star system, meaning you would see two sunsets if you could stand on its surface.

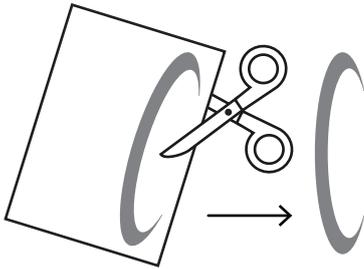
Optional - Step 3: Put a ring on it!

You'll need:

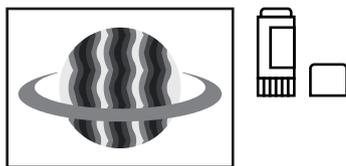
- A Printer
- Colouring Pencils
- Scissors
- Glue Stick



q. Print the ring and colour it in



r. Cut along the solid line marked with 



s. Set your painted exoplanet sideways and glue the ring on top

