

Our Place in the Universe – Papier Mache Planet Activity

[Watch](#) Morgan Alford from Let's Talk Science as she talks about making her own solar system.

Materials

- Paste – use water and liquid glue/flour
- Medium sized bowl to combine paste
- Newspaper – torn into thin strips
- Balloons (x 9) blown to various sizes – see sizing chart below
- Tape measure or ruler
- Stand to dry planets overnight – get creative here: bowls, vases, plant pots would all work!
- Cue cards or sticky notes
- Something to colour your planets – use felt pens, acrylic paints, or even homemade paint from spices mixed with little water and cornstarch until desired consistency
- Construction paper for Saturn's ring
- String

***Please note, under the extenuating circumstances associated with COVID19, that materials should be sourced from your house and substitutions for materials should be made where possible.*

Method

1. Create papier mache paste by mixing flour and water in a medium sized bowl. This is your "glue" and it should be the consistency of pancake batter.
2. Inflate the balloons to various sizes according to the size chart below. You can't make the model to scale, but inflate small and large balloons with this scale in mind. The Sun will be too big to make out of a balloon.
3. Pick a balloon to coat with newspaper and write the name of the planet it represents on a cue card. If you have internet access, look up some cool facts about the planet. NASA's [Solar System Explorer](#) is a great website to discover more about the planets. Write down the planet name, facts, and colours on a cue card. Keep this cue card with the planet.
4. Dunk a newspaper strip into the paste and smooth onto the surface of the balloon. Repeat until the entire balloon is coated. Be careful not to use too much paste on the newspaper. For a stronger structure you could add up to three layers of newspaper.
5. Place your newspaper-coated balloon on its stand to dry (somewhere dry and warm in your house).
6. Repeat steps 3-5 for all balloons a.k.a. planets!
7. Leave the balloons to dry overnight.

8. Decorate your planets to look like the planets in our solar system. Use [NASA's Solar System Explorer](#) website for inspiration.
9. Make a construction paper ring for Saturn and attach it to the planet with the leftover glue or tape.
10. Attach string around the tie of the balloon to hang your planets.
11. Hang your planets to represent the solar system by using the distance between the planets listed below. You may not want to make your model perfectly to scale – it's pretty big!

Enjoy your model solar system!

Size and distance from Sun (to scale)

Planet	Size/Diameter (cm)	Distance from Sun (cm)
Sun	556	-
Mercury	1.9	5.8
Venus	4.8	10.8
Earth	5.1	15.0
Mars	2.7	22.9
Jupiter	56.9	111.1
Saturn	45.7	142.6
Uranus	19.7	287.6
Neptune	19.8	591.4