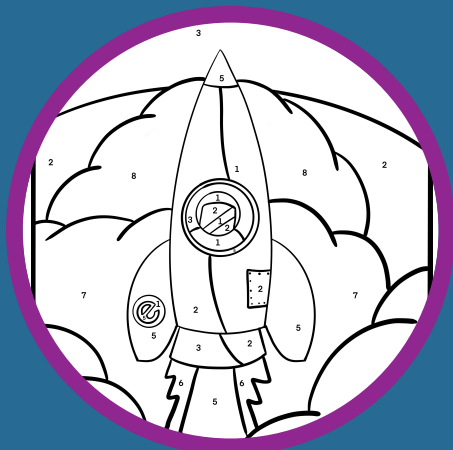
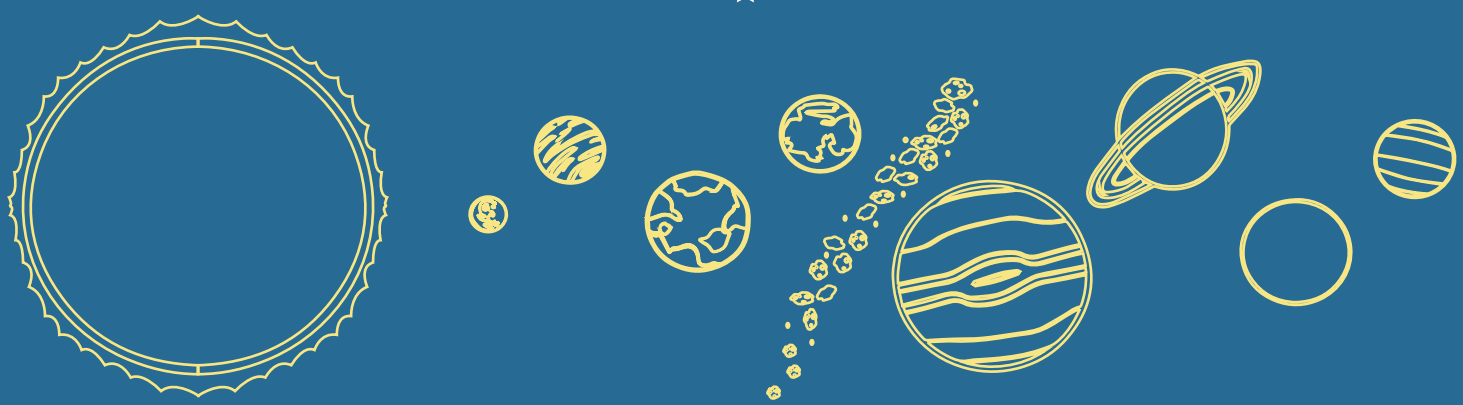


Exploring
Earth
& Beyond



The Solar System



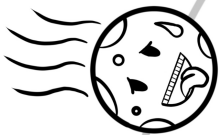
Drawing



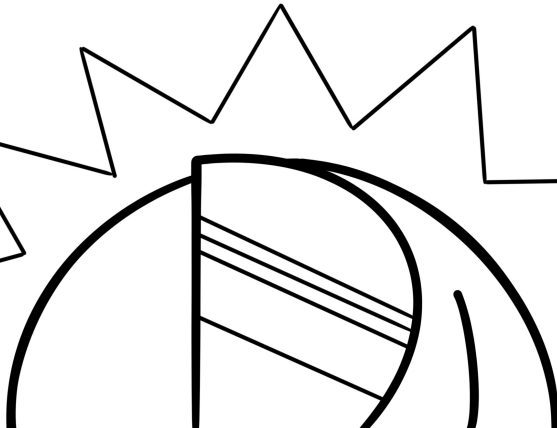
Crafts



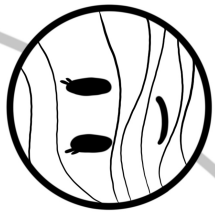
Experiments



Mercury



The Sun



Venus



Earth



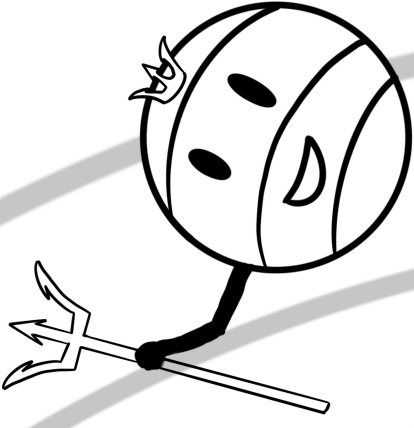
Moon



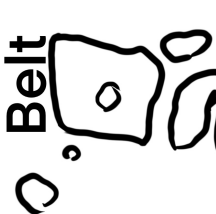
Mars



Jupiter



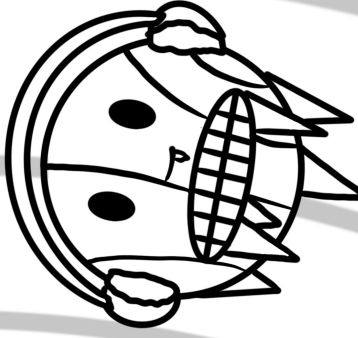
Neptune



Asteroid Belt





Saturn





Uranus


Crossword puzzle.


2. Did you know that we live in a spiral galaxy known as the _____?  (8 Letters)


4. Mercury, Venus, Earth and Mars are called terrestrial _____  due to their solid matter. (7 Letters)

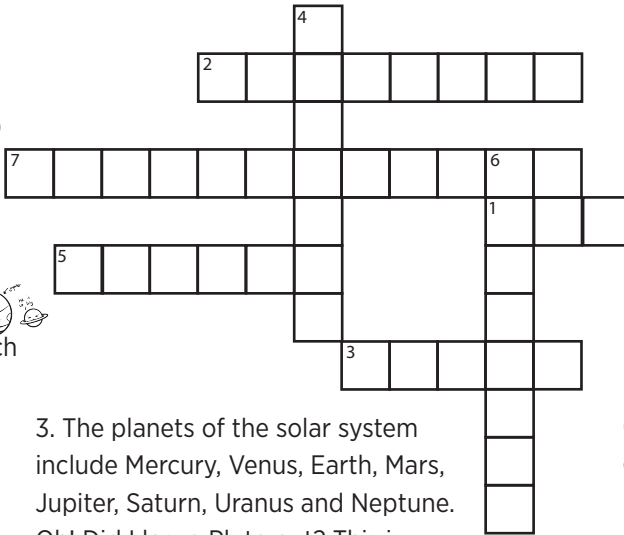
7. A meteoroid that enters the earth's atmosphere and vaporizes. Also called a _____  (12 Letters)

5. Jupiter, Saturn, Uranus, and Neptune are called _____  Planets because they are much larger than Earth. (5 letters).

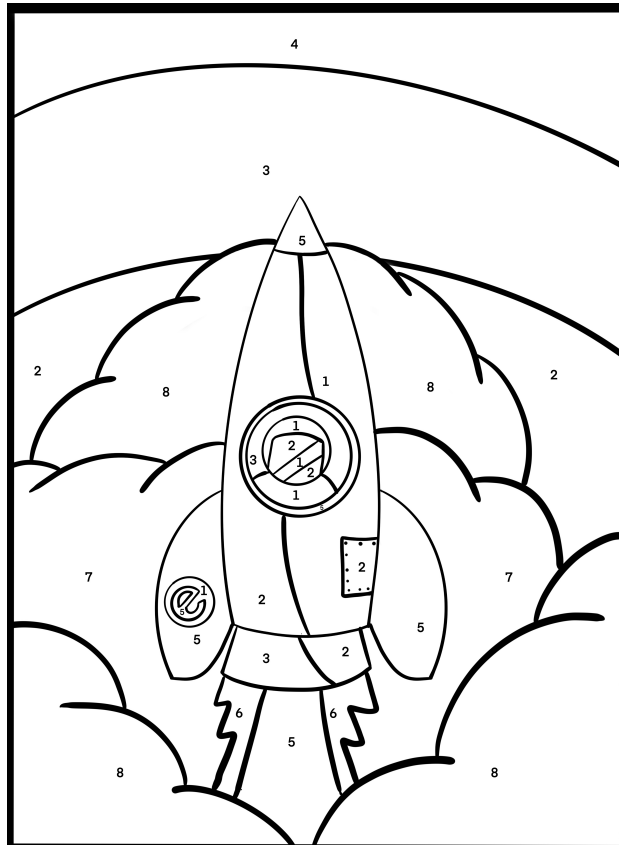
3. The planets of the solar system include Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. Oh! Did I leave Pluto out? This is because Pluto was declared a _____  planet in 2006! (5 Letters)

1. The _____  is in the center of our solar system. (3 Letters)

6. Between Mars and Jupiter, one can find the _____  Belt. (8 Letters)



Colour the image below according to the numbers.



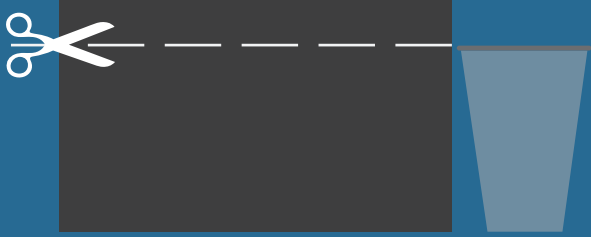
1= White, 2= Light Blue, 3= Dark Blue, 4=Purple
5= Red, 6= Yellow, 7= Light Gray, 8= Dark Gray

Moon Phases In A Cup

Materials:

- Two large clear plastic cups
- Black paper
- Black marker, yellow paint
- Labels (optional)

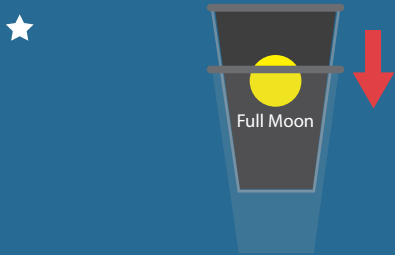
1) Cut a rectangular piece of black paper the same height of the plastic cups.



2) Paint a yellow circle on the black paper. Once dry, roll the paper and place it in the cup (make sure the yellow circle is facing out and not covered by the paper).



3) Place the first cup (with the black paper) into the second cup. Write "Full moon" on the outer cup under the yellow circle.



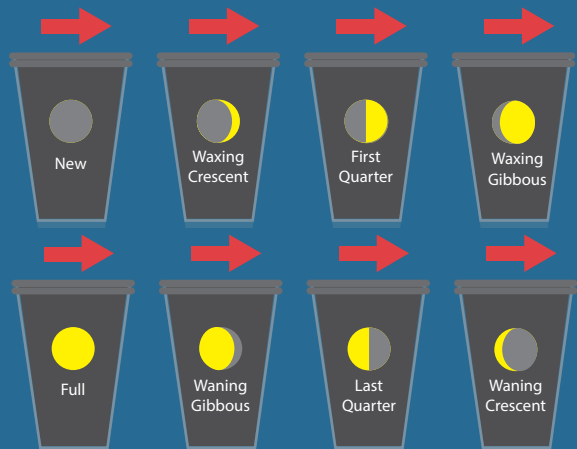
4) Turn the inside cup slowly and write out the names of all 8 phases next to each other under the yellow circle. If they don't fit, try starting over by drawing a smaller circle.



5) Follow the diagram below to draw the rest of the phases on the outside cup. Draw the grey parts of the diagram with black marker.



6) Don't forget to write the names of the phases. Turn the cups around to match the moon at night! See what today's moon phase is called.



4-6 years

Moon Plate

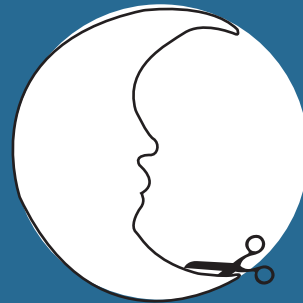
Materials:

- Paper plate
- String
- Poster colours
- Black marker
- Pencil
- Scissors
- Hole Puncher

1) Use the pencil to draw a half moon with a nose and mouth on your paper plate.



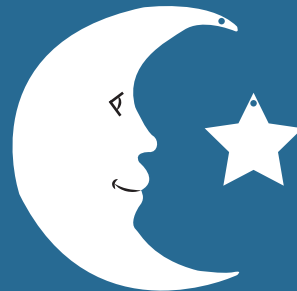
2) Use the scissors to cut the moon.



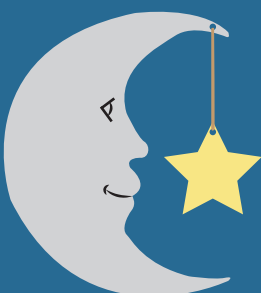
3) With the remaining plate material, draw a star and cut it with your scissors.



4) Draw a face for the moon with a black marker, then punch a hole to the upper tip of the moon, and the star.



5) Use the poster colours to paint the moon and star. Once they are dry, attach them together with a string.



6) Hang your star and moon in your room!



Alternative drawings: The Sun and a planet or a planet and a moon.

String Solar System

Materials:

- Embroidery thread
- White glue
- Water
- Bowl
- Balloons
- Cups

1) Cover the table with old newspaper/ paper towels so you don't stain the table.



2) In the bowl, mix the glue and the water (equal parts).



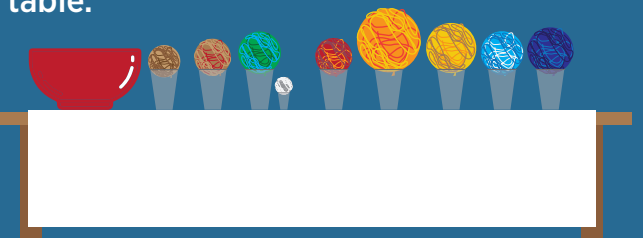
3) Blow up the balloons in different sizes depending on the size of the planets.



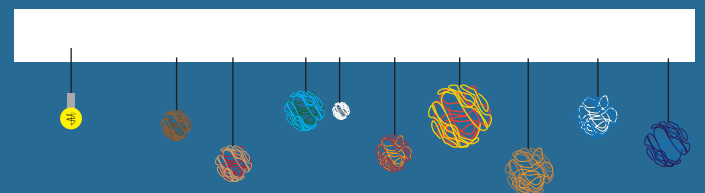
4) Dip the embroidery thread in the glue & water mixture, and place it randomly around the balloon until most of it is covered. Use different colours for the different planets.



5) When you cover the balloon with the embroidery thread, leave it standing on a cup to dry. It is important to put it on a cup so the extra residue doesn't drip on the table.



6) Once dry, hang a piece of string from the top poles and hang the planets in your room.



Tip: You can hang them around the light source of the room as if it is the Sun!

7-9 years



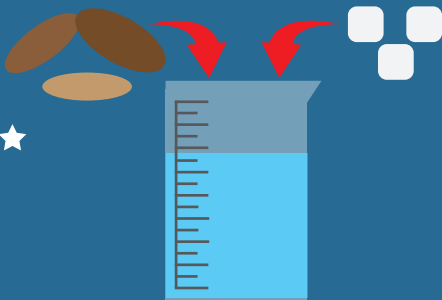
Ganymede Up Close: (one of) Jupiter's Moons!

Materials:

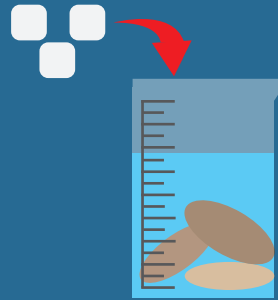
- Water
- Ice
- Beaker or large mason jar (transparent)
- Pebbles/rocks of different sizes

Note: On Ganymede, ice is the top layer. So, if we happen to land on it, we would land on frozen water (ice). Beneath it, there is land (rocks). Just like Ganymede, in this experiment we will see what these layers are like.

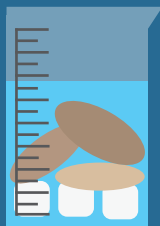
1) Ganymede is made up of ice and rocks. Which one of these floats in water? And which one of these will sink?



2) Let's try this out! Pour water into a large jar until it's 2/3 full. Slowly place some rocks and pebbles of different sizes in the jar, then slowly add the ice on top to avoid splashing.



3) But what would happen if the layers were in different order? If we layer the ice under the rocks, the ice becomes trapped!



4) When planets and moons are formed, they are formed naturally which means that no one places the water, land and ice; it happens naturally. So let's shake up the scene a bit and see what happens naturally.



5) Stir the water with a spoon and let's see what happens to the materials inside.



6) What happened? All the elements separated and spread according to their density! This is what happens in space. All the planets and moons form with the densest material at the core.



Exploring Earth & Beyond

Themed Science Shows and Activities
May - June



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