

Sol Appreciation Night

| 6:30 PM | Opening Parade |
| :---: | :---: |
| 6:35 PM | Attention Game: TBA |
| 6:50 PM | Knott of the week: Rolling Hitch |
| 7:10 PM | Fun Facts about our Solar System: <br> - 8 different planets in our solar system - Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune <br> - What about Pluto, in 2006 Pluto lost its official planet status and is know as a dwarf planet <br> - Did you know there are 5 different official dwarf planets - Pluto, Ceres, Eris, Haumea and Makemake. <br> - Most of the planets in our solar system rotate in a counter clockwise direction. However, Venus and Uranus actually spin in the opposite direction. <br> - The largest volcano in our solar system is called Olympus Mons, and it's located on the planet Mars. It's estimated to be 25 km high. <br> - The planet Neptune has the strongest winds in the solar system, with speeds reaching more than $2,000 \mathrm{~km}$ per hour. |
|  | Split group into two groups of 8-10 scouts, joining two patrols together if required. Change over time 7:40pm and finish at 8:10pm. If any group finishes early they can have a try at the bonus activities |
|  | Activity Station 1: Space is a BIG place Activity |
|  | Activity Station 2: "Solar" Cookie Activity |
|  | Bonus: Activity Station 2: <br> - Build an origami rocket ship https://youtu.be/OFTO2xtmoZQ |
| 8:15 PM | Review Unit Code of Conduct, run by Patrol leaders |
| 8:25PM | Closing Parade (remind scout to pick up their cookies) |

## "Solar" Cookie Activity

## Group Size: Patrol Size

## Equipment:

- Pre-prepared cookies, either butter cookies or purchased arrowroot biscuits. Enough for 3-4 biscuits a scout
- A set of ingredients for icing for each patrol: icing sugar, water, and food colouring
- A plastic bowl and knife for each a scout to mix their icing.
- Plastic zip lock bag with the Scout's name on it
- A number of trays big enough to fit into the fridge


## Set up

Set up a plastic table for each patrol, with a set of the icing ingredients.

## Instructions:

1. Each scout is to mix up their own icing, without colour initially
2. Patrol Leader to control food colouring
3. Scouts to separate the icing into small batches and colour to decorate their biscuits a variety of colours to show as a sun or planet
4. The scouts apply the icing to their biscuits
5. When they are done, they should leave their decorated cookies on top of their names zip bag on the tray
6. Once the tray if full; it should be put into the fridge to harden

## Space is a BIG place activity.

## Group Size: 9

## Equipment:

- Compasses
- Planet Labels
- Star Map, specific to location and time, see Charts of the Night Sky - In-The-Sky.org


## Set up

This activity needs to be played in a large open space at night,

## Anticipated Time

This activity needs to be played in a large open space at night,

## Instructions:

1. Assign a scout against each planet, one as the Sun and one as a rocket.
2. Those assigned as a planet, will be given a bearing and distance, and one by one need to position themselves relative to the sun based on the table below
3. This will re-create a "somewhat" scale map of the solar system.
4. Once all planets are in position, the rocket will leave from earth and attempt to navigate to every plant in the last number of KM

|  | Planets | Distance from Sun | Proportional <br> Distance |
| ---: | :--- | ---: | ---: |
| $\mathbf{1}$ | Mercury | $57,900,000 \mathrm{KM}$ | 0.32 M |
| $\mathbf{2}$ | Venus | $108,200,000 \mathrm{KM}$ | 0.6 M |
| $\mathbf{3}$ | Earth | $149,600,000 \mathrm{KM}$ | 0.83 M |
| $\mathbf{4}$ | Mars | $227,900,000 \mathrm{KM}$ | 1.27 M |
| $\mathbf{5}$ | Jupiter | $778,300,000 \mathrm{KM}$ | 4.33 M |
| $\mathbf{6}$ | Saturn | $1,427,000,000 \mathrm{KM}$ | 7.93 M |
| $\mathbf{7}$ | Uranus | $2,871,000,000 \mathrm{KM}$ | 15.96 M |
| $\mathbf{8}$ | Neptune | $4,497,100,000 \mathrm{KM}$ | 25 M |


|  | Bearing |
| :---: | :---: |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |

Commented [AM1]: Add bearings to suite the area you are working in
5. The exercise can be repeated with different scouts taking different roles, and mixing up the bearings to change the configuration of the solar system.
6. How does the position of the planets impact the distance between them?
7. In pairs give scouts the map of the night sky and ask them to find any visible plants?
8. Using the location of those plants have them also identify three other Constellations in the night sky (other than the Southern cross)
9. If visible also have them identify the Southern Cross?

