

## Astronomer

1. **Make a model or draw a simple diagram of the solar system**
  - a. There is an activity idea below for this
2. **Explain the difference between a planet and a star**
  - a. Create a poster showing people how to tell them apart
  - b. Think about things like movement, temperature, appearance, size, and weight
3. **Learn how to observe the sun safely. Find out and explain how the earth moves around the sun**
  - a. How could you explain this in the most simple way?
4. **Observe the moon, using binoculars or a telescope if you can**
  - a. Describe some of its features
  - b. Draw, or find, some pictures of the things that you might see
5. **Identify 3 constellations**
  - a. Name and draw them
6. **Find out about 2 space-related subjects and present some information about them**
  - a. You could find out about planets, the history of space exploration, or space technology
  - b. Create 2 different resources, such as a poster, leaflet, or model

**Enjoy!**

**Send any work that you do for this badge to [14thbroadstairs+cubs@gmail.com](mailto:14thbroadstairs+cubs@gmail.com)**

**Any questions, use the same email address, or for parents; post in Facebook, or message a leader.**

**There are some extra activities which you could do on the next page!**

## Activities

### Fruit Salad Solar System

*You might not be able to find some of the things that this activity suggests that you use, but have a look around the house to see what you can find that might be a similar size!*

#### The whole of space

- We aren't sure how big space is, because not all of it contains visible light – this means that we can't measure it
  - But we do know that it is 13.8 billion years old!
- A galaxy is a large group of stars, held together by gravity
  - Our galaxy is called the Milky Way
- One of the stars in the Milky Way is the Sun
  - 8 planets (including Earth) orbit the sun and make up our solar system

#### Our Solar System

- **Mercury (peppercorn)** – this is the smallest planet, and the closest to the sun
- **Venus (blueberry)** – this planet spins in the opposite direction to the other planets and is covered in volcanoes
- **Earth (grape)** –  $\frac{3}{4}$  of our planet is covered in water
- **Mars (dried cranberry)** – also known as 'the red planet', because it is covered in a mineral called iron oxide, which gives it its colour
- **Jupiter (grapefruit)** – the largest planet in our solar system, all the other planets in the solar system could fit inside it!
- **Saturn (orange)** – the second largest planet and the lightest planet because it is made almost entirely of gas
- **Uranus (small satsuma)** – the coldest planet in the solar system
- **Neptune (plum)** – this name comes from the Roman god of the sea because of its deep blue colour, it is roughly the same size as Uranus

Can you come up with a rhyme (a.k.a. mnemonic) to remember the order of the planets?  
e.g. My Very Easy Method Just Speeds Up Naming

You might be thinking that we've missed Pluto, but in 2006 scientists decided on a clearer definition of the word 'planet', which Pluto no longer matched with. It is now known as a dwarf planet, it is smaller than our moon!

The sun is about 109 times the diameter of the Earth! In fact, it is so large that you could fit about 1,300,000 Earths inside it! (You probably won't find a fruit big enough to represent that!).