



High Weald Hero Dark Skies Activities



Count the stars from your garden

You and your family may be in lockdown, but there is always the wonder of the stars to keep you amazed. Why not get out in your garden to count stars and look for Orion the Hunter (right)?

- First, turn outside lights off and pull curtains to reduce light pollution (artificial light in the night sky).
- Next, count how many stars you can see. Do this using a rectangular view finder, made from cardboard or paper; or by putting your fingers up around Orion in rectangle shape. The darker the skies, the more stars you will see.
- Then tap into the story, activity and quiz below. You can also use our extra resources and activities online to find out more about star counts, earth and space, or the impact of light pollution: [Dark Skies teaching resources](#)



Orion - the story behind the stars

Orion the Hunter appears in the winter sky, with his bow, and his hunting dogs, Canis Major and Canis Minor, trailing behind him. Greek mythology tells us that **Orion** was known as a fierce hunter. His boast that he could rid the Earth of all the wild animals, however, angered the Earth goddess, Gaia - quite right too!

Artemis was the daughter of Leto and Zeus, and the twin of Apollo. She is the goddess of the wilderness, the hunt and wild animals, and birth.

Artemis fell in love with Orion. But her twin brother Apollo did not approve. He sent a giant scorpion to chase Orion. Trying to escape, Orion dived in the sea and tried to swim to Delos, a Greek island. But Apollo deceived his sister and told her that Orion had betrayed Artemis with a local girl.

She was so hurt that she shot him with her bow that never missed, only to find that she had killed her lover. Artemis was heartbroken - she threw Orion up in the sky so that he could live forever.





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Quiz questions:

1. What is a star?
2. What is a constellation?
3. What is a galaxy?
4. What is the order of planets in our solar system, starting with the one closest to the sun?
5. What do we see in the sky most nights that isn't a planet or a star?
6. How much of it do we see? What effects does it have on Earth? How long is a lunar cycle?

Answers:

1. Stars are spheres of gas that emit heat and light through nuclear processes. The nearest star to Earth is the Sun and the next nearest, Proxima Centauri, is 271,000 times further away.
2. A constellation is a pattern of stars in the sky. There are 88 recognised constellations. These groups of stars are historically named after objects, animals and mythological characters.
3. A galaxy is the name given to a collection of stars, gas and dust bound together by gravity. We are part of a galaxy called the Milky Way, containing more than 400,000 million stars.
4. Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune (some people include Pluto – others don't). A way of remembering the order is My Very Energetic Mother Just Swam Under Newhaven Pier.
5. The moon—it is made of solid material like a planet but orbits the Earth instead of the sun.
6. We only ever see one side of the moon (we don't see the dark side). It controls the tides. A lunar cycle is 29.5 days (that is where we get our months from).

Activity:

Use fruit to show planet sizes using the measures below. Or you could use equivalent-sized non-food items in the home, like a football, tennis ball, marble, small bead, ball of wool, etc.

Put the items in order to show the sizes of the planets:

- Mercury – Peppercorn
- Venus – Cherry tomato
- Earth – Cherry tomato
- Mars – Blueberry
- Jupiter – Watermelon
- Saturn – Large grapefruit
- Uranus – Apple
- Neptune - Lime/satsuma

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