

Think and learn

1 Read and complete the sentences.

characters planets constellations burn the Sun solar system gas billion millions galaxy

Stars are big, burning balls of (1) gas, which are bigger than (2) _____.

They take (3) _____ of years to (4) _____ all the gas inside them.

The closest star to Earth is (5) _____. It is also at the centre of our (6) _____.

A group of stars is called a (7) _____. Ours is called the Milky Way, and it has more than 100 (8) _____ stars in it. It also has many different (9) _____. These are smaller groups of stars that make particular shapes. They are often named after (10) _____ from stories.

2 Can you remember? Number the stages of a star's life in the correct order.

A star is created.

We can't see it any more.

A star burns all the gas inside it.

There is a big, cold cloud of gas called a star factory. **1**

Clouds break up and get very hot.

3 Read and complete the information about stars. Number them in order of temperature (1 = the hottest).

We know what stars are made of and how they are made, but did you know that there are different coloured stars? The biggest, hottest stars are blue, like Rigel – the brightest star in the Orion constellation. Scientists think its surface temperature is around 12,000 degrees Celsius (°C). At the other end of the scale, red stars are the coolest (yes, really!), but they are still very hot. For example, Betelgeuse is around 3,200 °C. Between red stars and blue stars are yellow stars, like the Sun, with a temperature of around 5,500 °C.

a 

Colour: blue
Example: Uranus
Temperature: 12,000 °C

b 

Colour: yellow
Example: the Sun
Temperature: 5,500 °C

c 

Colour: red
Example: Betelgeuse
Temperature: 3,200 °C

4  Match the constellations with their names.

Cancer (the crab)

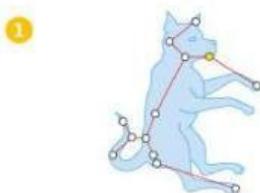
Canis major (the big dog)

Draco (the dragon)

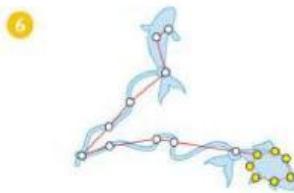
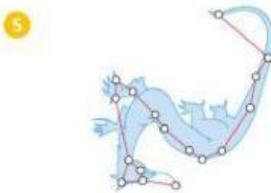
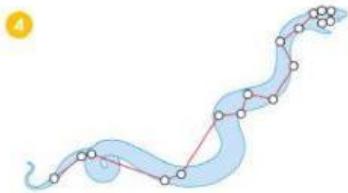
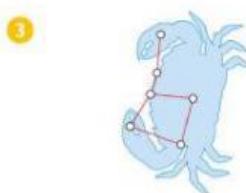
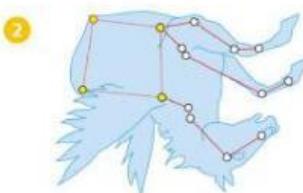
Hydra (the water-snake)

Pegasus (the flying horse)

Pisces (the fishes)



Canis major



5 Read the descriptions and write the name of a constellation from Activity 4.

1 Draco is the eighth-largest constellation in the sky. In Greek mythology, it was a large creature that was killed by the hero, Hercules. You can see its head, which is marked out by four stars, quite clearly at the bottom.

2 represents the Greek goddess Aphrodite and her son, Eros, who changed into fish and jumped into a river to escape from a scary monster. There is a very clear circle of seven stars on one of them.

3 is one of the biggest constellations and is easy to spot because of four very bright stars in a square, which represent the animal's body.

4 contains Sirius, the brightest star in the sky. The constellation is very close to the constellation Orion, named after the hunter in Greek mythology, and it represents one of Orion's hunting animals.

5 is the longest constellation in the whole sky. Its name comes from the snake with many heads in Greek mythology, which Hercules fought. Five stars make up its head, while the rest of its body stretches across the sky.

6 is named after a very minor character from Greek mythology which bit Hercules while he was fighting the multi-headed snake. Unfortunately, someone then stood on it and squashed it. It is made up of six stars.

6  Project Find and write the names of three more constellations in English.