

The Summer Triangle - Activities (Ages 8-11)



Today we are going to investigate:

- A famous group of three stars
- The constellations whose stars trace out this pattern
- A sky feature that passes through this star pattern
- Why you can't see this star pattern every night of the year

Activities

- 1 Today we are going to look at a famous star pattern. Start up Night Sky and use the Space Travel tile to change the date to any evening in July and look south. Move the sky with your finger to see if you can find three bright white stars. These stars are called Vega, Deneb and Altair and they trace out a big pattern in the sky.

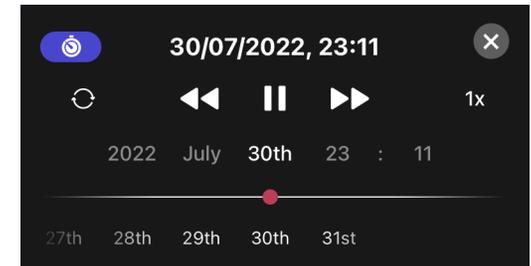
Question: Can you guess what this star pattern is called?

- a) The Big Vee b) The Summer Triangle c) The July Triplet

- 2 This star pattern is not actually an officially recognised constellation as its three stars all belong to other constellations. Easy to recognise patterns of stars like this are called **asterisms**. These three stars belong to three different constellations. They are called Cygnus, Lyra and Aquila. Let's find out what ancient people thought these constellations looked like. Go to Night Sky's Settings, select Preferences and turn on Show Glass Mythology.

Question: People in ancient Rome called the Summer Triangle the "Three Birds", can you see why?

- 3 Cygnus is a long-necked swan, Aquila is an eagle with spread-out wings while Lyra is meant to be a lyre, a sort of small harp, but it is traditionally shown being carried by a bird (an eagle or a vulture).



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Questions: Do you think any of these constellation really look like the objects they are named after?
Which one is most like the object?

4 Look inside the Summer Triangle, you will see a cloudy structure running through it. If you trace its path you can see it extends right across the sky from one horizon to another. This is the galaxy our Sun and its planets, including Earth, are inside. Galaxies are giant groups of stars and clouds of gas and dust.

Question: What is the name of our galaxy?

a) Andromeda b) Pinwheel c) Milky Way

5 Although the stars of the Summer Triangle are always in the sky they can only be seen between Spring and Fall. Let's see why this is. Use the Space Travel Tile to change the date and time to an evening in January. Look for the stars of the Summer Triangle in the sky. If you can't see them, just move the time slider until the Triangle is in the sky

Question: Why do you think the Summer Triangle cannot be seen in the Winter? (Hint: look for another very bright object in the sky!)

What we have discovered:

- Asterisms are simple unofficial star patterns
- The Summer Triangle is a large asterism of three stars
- These stars are members of the constellations Cygnus, Lyra and Aquila
- You can see part of the Milky Way, running through the Summer Triangle

