

# Stars - Why do stars twinkle?

## Fact

- Stars seem to twinkle
- The twinkle is actually the light travelling from the star and being bent and twisted in its long trip through layers and layers of gas particles in the atmosphere back to your eye.
- Stars are mega hot balls of nuclear fusion that are so hot they glow.
- Our sun is a star a ball of fusion energy and its glow gives us our daylight.
- Stars glow all the time but the brightness of our sun's daylight cancels out the twinkle of the stars.

## Do you know

- The people in the Southern Hemisphere (like New Zealand, Australia and the Pacific Islands) look out at a different part of the sky from the Northern Hemisphere so they see different stars.
- A star can shine for over a billion years. It takes millions of years for a star to form and millions of years for it to "die".
- When a star "dies" or explodes it can form a black hole

### Experiments you can do

With the help of some friends or while on school camp experiment with a torch to see how the light of a torch looks smaller and dimmer the further away you are – just like the "light" of a huge star.

On a clear night see how many stars you can see. If you live in a large town or city you won't see as many as if you lived out on a farm because of the glow of all the streetlights and so on.

### **Other Investigations**

Over a number of clear nights look at the stars and see if they twinkle more on a windy night or a still night? Do you see more stars when the moon is out or when it's hidden by a cloud? See if you can find stars that twinkle different colours? Where is the brightest star? Is it in the same place a month later – why would that be?

### Jokes

Why did the star want to go to Hollywood? It wanted to be a movie star!

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