



Second Adventures in Astronomy

Exoplanets

David Mitchell:

Sixty second adventures in astronomy. Number three, exoplanets.

Like fussy holiday makers looking for a home from home, astronomers are fascinated by finding planets similar to Earth beyond our solar system.

But planets outside our solar system, known as 'Exoplanets' are difficult to spot because they get lost in the glare from the star they orbit. Like a mosquito flying around a streetlamp.

So how do you see something that's effectively invisible?

Observing the changing appearance of some stars, astronomers found that an exoplanet could be detected by measuring the effect of its gravitational pull on the star it orbits.

Some can also be detected if they pass in front of their star, causing its light to dim slightly. Like a wink.

You can even work out the planet's mass and size from the amount of the stars wobble and the depth of its wink. Which gives us a pretty good idea of what it's made of.

Some exoplanets may even contain water because they orbit their stars in the Goldilocks Zone. Any further away they'd be too cold, any closer, too hot.

And although hundreds of exoplanets have been discovered, astronomers haven't yet found one that's just like the Earth.

Who needs a second home anyway?