Build your own Planet System

Congratulations on your new discovery! Now that you've discovered a new planetary system, you need to carefully note down your observations in the fact file below and build a model so we can start planning new missions to these planets.

First you're going to need a name for the star! Our star is called the Sun or Sol, which is why our planetary system is called the Solar System. Our Solar System has 8 planets, but different exo-planetary systems have been found with anywhere between one to eight planets. How many planets does your system have?

Pick one planet to study in more detail! What is it called? Is it a small, rocky planet like Mercury, Venus, Earth or Mars, or a huge gas planet like Jupiter, Saturn, Uranus or Neptune? What colour is it? What is in the atmosphere - could you visit and breath the air like on Earth, or would you need lots of protection against toxic gasses like sulfur dioxide, like on Venus?

We haven't managed to send spacecraft to exo-planetary systems yet, but if we could, what would sattelite images of your planet look like? Look at some images of our Solar System for inspiration. Would your planet have swirling clouds and huge storms like Jupiter? A dry, dusty surface like Mars, with huge volcanoes? An icy surface like Europa or Enceladus? A world with oceans and continents like Earth? Draw the first picture a sattelite would send back!

Add your oberved planets to the spiral planetary system template and colour it in. Cut out the spiral along the dashed lines to make a 3D mobile!

Yorkshire Space Hub: Exoplanet Research Center
New Discovery Fact File

Scientist's name: _____

Star name: _____

Number of planets: _____

Key planet name: _____

Key planet size: _____

Atmosphere: _____

Surface description: _____

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