

## What If... – Student Activity

In this activity, try to think creatively and deeply about space science. For each 'what if' scenario, think about what you have already learnt that is relevant to the idea and what might cause the scenario. Then dream up some effects the scenario might have on Earth or the solar system.

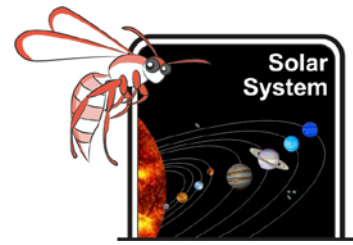
### Scenario 1: ... the Earth stopped spinning?



### Scenario 2: .... the Earth or one of the other planets suddenly disappeared?



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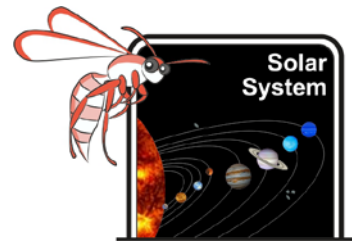


Scenario 3: ... planets such as Earth were stopped in their orbit?



Scenario 4: ... Earth lost its atmosphere?





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**Scenario 5: ... if we found another Earth-like planet circling another star? Should we try and contact any life on the planet? If so, what information should we send?**

In 1974 the new Arecibo radio telescope in Puerto Rico sent a digital radio message to the star cluster M13, in the hope of contacting extra-terrestrial intelligence. It contained basic information about humans and our location in our solar system.

This graphic to the right is the message that was sent out into space.

**What do you think the scientists wanted alien life to interpret from it?**  
(Hint: There are seven main ideas).



**Can you think of two good reasons why we would want to give this information to alien life forms?**

**Can you think of two reasons why we would not want to give this information to alien life forms?**