

Week commencing 4th May

Learning to explore how the rotation of Earth creates day and night.

First watch these two videos on how day and night are created.



<https://www.bbc.co.uk/bitesize/clips/zrd9wmn>



<https://www.bbc.co.uk/bitesize/clips/zkynvcw>

Task

Make your own sundial.

There are several different ways to create a sundial.

- 1) Print off the template attached to this document and using playdough, plasticine or blutac, stick a pencil into the centre. Here is the one I made!



2) You could create one using a paper plate.



Watch the video to see how to do it

<https://www.youtube.com/watch?v=oSMsX7cwzjk>

3) You could also create a human one



Standing in the same place each time you go outside and either drawing around your shadow with chalk (like they do in the video) or placing rocks where each shadow falls.

Can you think of any other ways to create a Sundial?

Once you have created your sundial take it outside (do this before midday) and check the sundial marking off where the shadow falls and what time it is each time you go out. Try and do this at least once an hour.



If you do not have an garden, balcony or outside space you can use, you can still do this inside. Place your sundial in front of a sunny window. It will still work.

The only problem we may have is lack of sun! It's pretty cloudy here as I type this, so you may have to wait a few days to complete this task. Fingers crossed the sun comes back soon!

Once you've complete the task answer these questions.

What do you notice?

What does this tell us about the Earth's movement?

Remember the sun does rotate around the earth. The sun is NOT moving.

How could you use this sundial to tell the time?

Email me a photo of your sundial and the answers to the questions.

Remember only go outside to do this if it safe!



Use a pencil to create the gnomon for your sundial in the centre of this circle. Throughout the day, mark the length and shape of the shadow created on your sundial. Be sure to make a note of the time for each shadow you mark.

