

# Hello Year 3

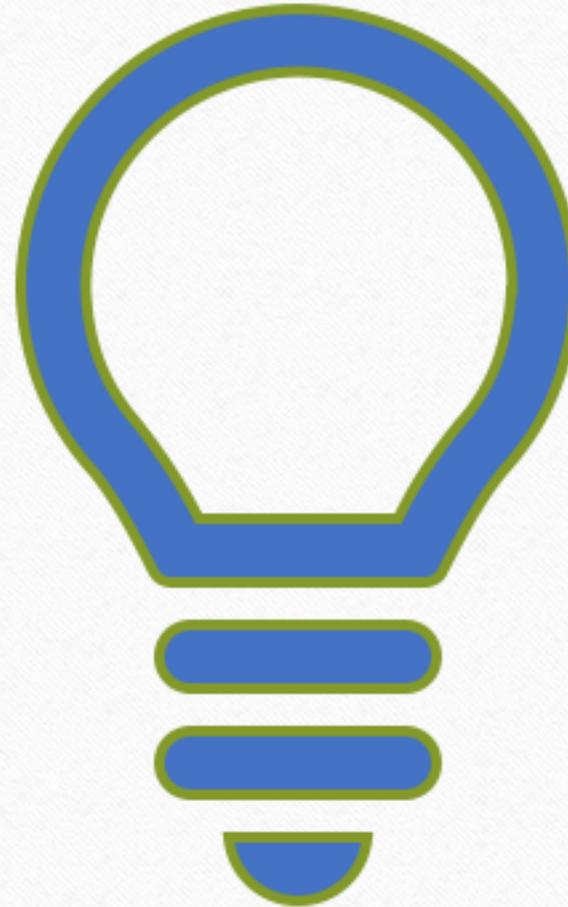
This week your tasks are linked to Science,  
Geography, RE and DT.

If you have any questions, please contact your class  
teacher on 2email in Purple Mash

In Science this week's task will encourage you to expand your knowledge of light and shadows.

In RE you are going to think about why people pray.

For Geography, you will be practicing your map reading skills and finding out facts about the United Kingdom.

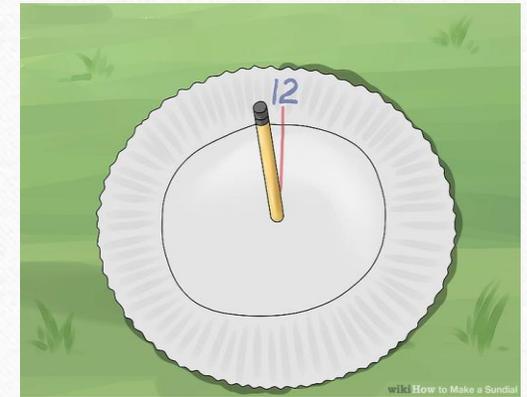


## Science/DT

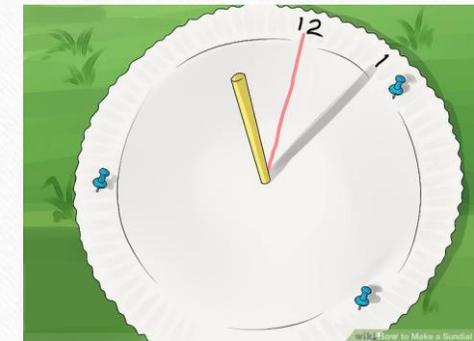
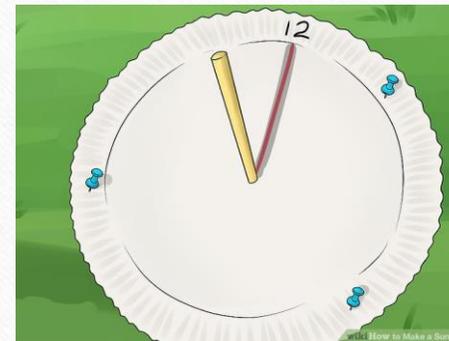
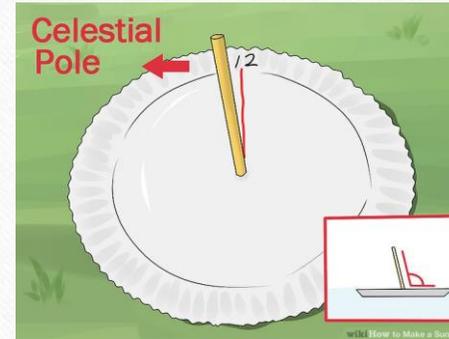
### Making a Sundial

Firstly, gather your tools. The tools required are very simple – you probably already have everything you need at home. The items required are crayons/markers, a paper plate, a sharpened pencil, pins, a ruler and a straight plastic straw.

1. **Write the number 12 on the very edge of the plate.** Use a crayon or marker for this. Take the sharpened pencil and push it through the centre of the paper plate. Remove the pencil so that you're left with a hole in the centre.
2. **Use a ruler to draw a straight line.** Draw it from the 12 to the hole you made in the centre of the plate. This number represents 12 o'clock noon.
3. **Use a compass to determine the closest celestial pole.** Your straw, or gnomon, should point towards the closest celestial pole, which is parallel with the Earth's axis. That's the North Pole for those living in the Northern Hemisphere.
4. **Bring the plate outside shortly before noon.** Place it on the ground in an area that will get full sun exposure all day. Stick the straw through the hole in the centre of the plate.



5. Push the straw slightly so. Do this so that it slants in the direction of the closest celestial pole.
6. Rotate the plate at exactly noon. Rotate it so that the straw's shadow is aligned with the line you drew. Since you are only measuring the hours of daylight, the plate will end up looking kind of like a clock, showing only 12 hours.
7. Secure the plate to the ground. Poke a few pushpins through the plate so that it will stay fixed in the same place on the ground.
8. Return to the plate one hour later. At 1:00 p.m., go back to the plate and check the position of the straw's shadow. Write the number 1 at the very edge of the plate, where you see the shadow falling.



9. Set an alarm and go back outside at the top of every hour. Continue marking the shadow's position on the edge of the plate. You will observe that the shadow is moving in a clockwise direction.



Repeat this process until dusk. Keep marking the plate every hour until you run out of daylight. At this point, the sundial will be complete.



# RE Prayers

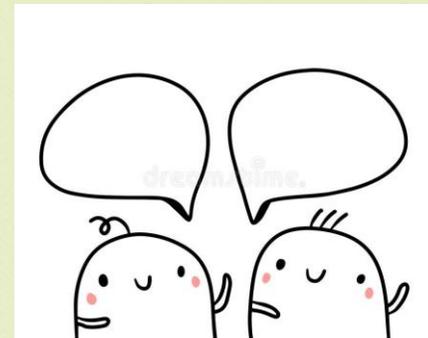
Why do people pray?

- Ask an adult who they believe helps them when things go wrong?
- What helps them when they are worried? Think about helpfulness. How does what they do help them?

**Pick and copy the sentences from below which best describes what happens when the people in their list help them:**

- a) this person magically solves all my problems
- b) this person gives me a hug and helps me feel better
- c) this person makes sure nothing bad ever happens
- d) this person really cares about me
- e) we like spending time together
- f) we enjoy each other's company
- g) we cheer each other up
- h) we try to help out
- i) we listen to each other

- Explain why you chose those sentences.
- Do you think talking like this is similar or different to praying?



# Geography

We are local and global superheroes

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Find a map of the United Kingdom (in an atlas or online) and use this to answer these questions.

1. What countries make up the United Kingdom?
2. What are the capital cities of these countries?
3. Name the 12 regions of the United Kingdom