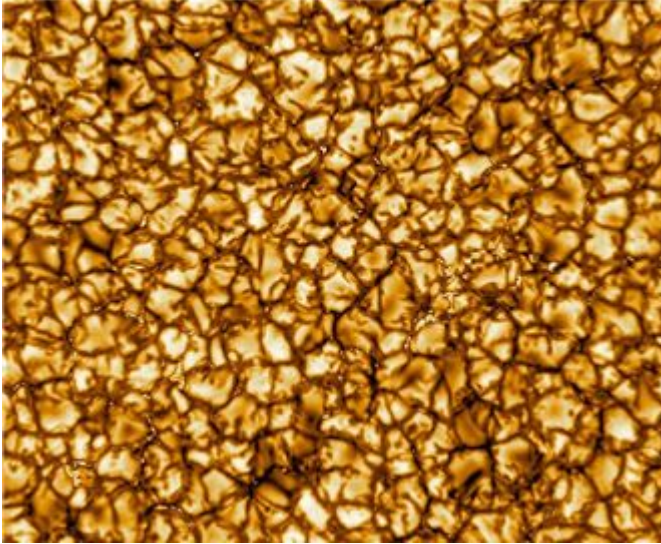




WEEK 1: LIGHT



Science in the News



This is what the sun's surface looks like. Each 'nugget' is about the size of France and is nearly 6000 °C. (Credit: NSO/NSF/AUR)



Try it at home - Create a sundial

What do you need?

- Something long and thin, like a pen, pencil, chopstick, straw or stick.
- An A4 piece of paper or a paper plate (anything you can draw on or make marks on).
- Something to hold your object up like blu tac or tin foil.
- Pens and pencils for drawing and decorating
- A sunny spot in your garden or on a windowsill

Why does this work?

Because the Earth rotates (spins) and the sun stays in the same place, the Sun appears to travel across our sky from East to West and so the sun casts a different shadow throughout the day. If you want to learn more about the science behind this, check out our lesson on our website - [Science Creates Outreach](http://ScienceCreatesOutreach)



Parents:

For primary learners, work through our full 'light' lesson plan with your child. It is based around the national curriculum learning objectives found in the year 6 'Light' topic.

Download here - [Science Creates Outreach](http://ScienceCreatesOutreach)

For secondary learners, the contents can be discussed in more depth using the scientific research paper referenced in the article.

HOT NUGGETS THE SIZE OF FRANCE!

On top of a mountain, in Hawaii, scientists have made the most powerful telescope on Earth, and they have pointed it at the Sun. This telescope can take the most detailed pictures of the sun, ever. Scientists are using these images to find out more information about the sun than ever before. They can use these images to learn more about the sun's surface and how it works. Humans should never look directly at the sun, even when wearing sunglasses, but now, with this telescope we can see it's surface all those kilometres away. That's pretty amazing.



Instructions:

1. First, take your piece of paper or paper plate and decorate it (this will be the face of your sundial). Top tip - don't decorate it in dark colours.
2. Next, find your long object and place this upright firmly in the centre of your surface. Top tip - push the object through your paper and into something underneath e.g. blu tac or your lawn. It needs to stand upright all day so ask an adult to help you if you need to.
3. After that, mark on the paper where the shadow is made from the sun, with the time next to it. For example, write 10 next to the mark you make at 10am. Do not move the sundial once you have started taking measurements!
4. Then, set an alarm so you remember to make a mark where the shadow hits the paper every hour. Once you have marked all the hours of daylight on your sundial, you are finished.
5. Finally, we would love to see the sundials you've made, so please take a photo and send it to info@sciencecreates-outreach.co.uk.





WEEK 1: LIGHT

N E U M U H W X S R L Q Z O E
 O M C P J O T O S H K I E T M
 R Z I N D Z U R B C Z B G X I
 T R A A E T Z N A W N P T H T
 H L H Y H I F E A E P S N S T
 G S M B P B C Y P L A P H A Y
 U O U C F Z U S H C U I E U G
 E C A P S Z T W Y S L T S Y A
 P X L K A A E A S T F S W N K
 E V L O V E R U I Y V U C W M
 R O T A T E N M C G V N Z I L
 W K Z L Y D P N S R R Y V J O
 J E Q E I V P B S E D F T A D
 W E S A B R N Q O N K W K C K
 C G L T K J U R Y E T D J R H

CAST
 EARTH
 EAST
 ENERGY
 LIGHT
 NORTH
 PHYSICS
 REVOLVE
 ROTATE
 SCIENCE
 SHADOW
 SOUTH
 SPACE
 SUN
 SUNDIAL
 TIME
 WEST

Read, Watch, Ask



Have a read of our [lesson](#) to learn more about nutrition.



How do your eyes work? Watch [here](#) to find out.



Got any questions about today's topic? Email us at info@sciencecreates-outreach.co.uk and we'll answer them!



Did you know?

Light travels in straight lines. It moves faster than anything else in the universe - 300 million metres per second. That means it takes only about 8 minutes for a ray of light to reach earth from the sun, 150 million km away!

Competition Time!



invent and draw an invention that you could use in your house. Are you tired of tidying your room? Do you always want to play with the same toy as your brother or sister? Is it often too cold or too hot? Grab a piece of paper and get drawing!

Your competition entry should:

- be annotated (labelled)
- have a name e.g The Nibbus 2000!
- include a small written description explaining what it does and what it solves.
- include your first name and age e.g. Patrick, 12 years old.

Finally, take a photo or scan your invention and send to juniors@uridx.com.

The deadline for this issues competition is Thursday 30th April 2020.

The winner will be announced and shared in next week's issue!

