

Summer Term 2 Science Newsletter

Thank you to those of you who commented about your children taking part in the science investigations with the spider hunting- apologies to those of you who don't like spiders! Remember to please ask your child to let me know if they would like a particular focus for one of the newsletters. Please keep sending in the science which you do at home as it is wonderful to share what you do and I can add it to our newsletter. Thank you, Mrs Banham



Which image do you think is the odd one out?

Remember: There is no wrong or right answer you just need to explain your thoughts, reasons and ideas.

Could your reason be linked to exercise?



Scientist - Joe Wicks-1985- Sports Scientist

You will recognise this scientist as the fitness gentleman who ran 'PE with Joe' every weekday during lockdown, which we all took part in at school and also 'Wake up with Joe'.

Joe was awarded a Guinness World Record for "most viewers for a fitness workout live stream on YouTube", after achieving over 950,000 viewers.

Joe was brought up in Surrey and did a degree in Sport Science before becoming a teaching assistant and then a personal trainer.

He uses science every day to work out which muscle groups he needs to use and how to advise and support people to get fit. He also uses his knowledge of science to calculate the sort of food and amounts of food people ought to eat to keep fit and healthy.



Science book/website recommendations



<https://www.youtube.com/watch?v=H1qPzxQDj2w>



If you want to take part in five minutes of fitness with Joe Wicks and your child click on the link above.

Below is a link for some 5 Minute Move workouts for children ,they great for all ages but aimed primarily at Key Stage 1. They are energising workouts you can do at home or in the garden.

<https://www.youtube.com/watch?v=udgOXaw4jbI>

If you want to try to gain virtual fitness badges with Joe and animated dog Duggie click the link above.

<https://www.youtube.com/watch?v=JpBp8E2Sxgw>

If you want to try to do a bit of fitness and see the Natural History Museum dinosaurs click the link above.

Science challenges- pre Sports Day science fun

You will need: 30cm ruler
Pen and paper
Timer
A space you can exercise in



What to do (inside):

1. Hold the top of a ruler with your fingers on 30cm and your arm stretched out in front of you so the ruler is hanging down. Ask a friend to put their thumb and index finger around the bottom of the ruler but not touching it (see picture). They should watch carefully, and when you drop the ruler, they need to catch it as quickly as they can.
2. Record the measurement on the ruler where they caught it.
3. The lower the measurement, the faster their reaction time.
4. Now swap over or find other people to have a go. Let each person have three turns and record the average value.

Science skill: Looking at your results-What do they tell you?

Who has the quickest reactions in your family and friends?
Is there a difference between younger and older people's reaction times?
Do you get quicker at catching the ruler the more you try?
How else could you test your reactions?

What to do (outside):

1. Sit down and rest for a couple of minutes. Count how many times you breathe in during 15 seconds (one breath = breathing in and out once). Multiply this by 4 to find out how many times you breathe in during a minute: this is your 'resting breathing rate'.
2. Now exercise for one or two minutes. You could run on the spot, do star jumps or any other type of exercise that you like.
(Safety note: do not push yourself more than you usually do when exercising and stop if you feel unwell or if you are over-exerting yourself).
3. Once you have finished, measure your breathing rate again.
4. Re-check it every minute over the next 5 -10 minutes

Science skill: Look at your results-What do they tell you?

Does your breathing increase after exercise? By how much?
How long does it take for you to return to your resting breathing rate?
Do some types of exercise increase your breathing rate more than others?

Science challenges- pre Sports Day science fun

What is the science behind this?

Our eyes see that the ruler has been dropped and send a signal to the brain, which then sends a signal to the muscles in the arm and hand to tell them to catch the ruler. These signals travel along our nerves, very, very quickly. Your reaction time depends on the time taken for the signals to travel.

Your body needs oxygen in order to release energy from the food you eat. When you breathe, oxygen in your lungs moves into your blood, which is then pumped by your heart around your whole body. When you exercise your muscles are working harder. This requires more oxygen which is why your breathing rate increases.

One of the waste products when energy is released from food is carbon dioxide. This travels in your blood back to your lungs and then you breathe it out.

To help your child at home, you could try some of these top tips:

- Try to improve the accuracy of their measurements when collecting the results either by asking them to support you with weighing ingredients when cooking or maybe measuring the length of something before you cut it e.g fabric or wood etc.

TopTip

IMPORTANT NOTICE: These activities are designed to be carried out by children working with a parent, guardian or other appropriate adult. The adult involved is fully responsible for ensuring that the activities are carried out safely.