Let's Experiment: Whizz, Bang, Pop!
Home Learning Introduction: Topic 9

We hope you are all keeping safe and well.

These may be of help to you, particularly if you are trying to manage several children's needs or have limited access to the Internet.

Page 1: activities – no IT needed Page 2: web links - if you have internet access and some extension.

The most important thing is that you are calm for your children and should only do whatever you can manage. Remember that children also learn a lot through play such as Lego and playing games and even through chores such as helping to prepare a meal. Great learning can happen when it's not always adult directed.

Wellbeing and Building Resilience
For resources to support this please click this link to our Padlet: https://padlet.com/HLTWellbeing/jukwcst2scmfbd7t or use this QR code:

Kindness - Having and Showing Empathy
(please see further website resources for support on the third page)

Empathy Day is on Tuesday 9th June 2020. Empathy is the ability to understand and share the feelings of others. It is like trying to 'step into someone else's shoes' to imagine how that person is feeling. Empathy is an important element in friendships. Even though we have to social distance ourselves during this time, we can still show empathy and care to one another.

Here are some ways you could you show someone empathy:

• Playing a 'recognise my feeling' game! Choose a feeling and then show someone your face with that feeling. Can they guess by your facial features and your body language (open arms or tight fists or crossed arms) how might you be feeling? Take turns in trying to recognise as many feelings as you can from each other!

• If you see someone is sad, what could you say to them to make them feel better? You could say, 'I can see you are feeling angry. What can I do to help you?' It is also very important to tell an adult if you see someone and/or your friend feeling sad or angry.

You can also practise building upon your empathy skills whilst you are reading! You could think about how the character or real-life character (in non-fiction books) might be feeling like! How would you feel in a similar situation as your character?

If a friend were to help you, what would you like them to say to you to help you?

Remember to be keep on being kind to yourself – this is called self-compassion. Give yourself another hug!

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Wellbeing and Building Resilience

Empathy - being aware of and sharing another person's feelings, experiences, and emotions.

This Photo by Unknown author is licensed under CC BY-NC-ND.
**Whizz Bang Pop sciencist quiz!**

1. Who discovered radiation? Marie Curie, Niven Newton or Albert Loveless
2. Who was the first to win an Noble Peace Prize? Rosalind Franklin
3. Stephen Hawking is famous for: his theories on primates, genetics and a disease
4. Who invented the glue for sticky notes? Spencer Silver, Robert Bunsen or Alfred Nobel
5. What is Einstein Mander s most famous for? E=mc2

**Maths**

| Number Bonds Imagine two positively charged atoms make a molecule. What could be the value of each bond? a) 2  b) 4  c) 10  d) 30  List all the possible bonds to 10. List all the bonds to 20. List all the bonds to 100. Is there a pattern? Now list the bonds to 1000. Does the pattern still hold? Why do you think this is? Try explaining this using voltage, electric current and units/ines.

| Fractions When boiling water in a kettle 10% of the water changes state to steam. If there was 200ml of water in the kettle to begin with how much would that be?

| What can you write your experimental investigation? What you wanted to find out? What was your question? What did you do? Did you find out? What might you judge it? In conclusion I discovered that...

| Science

**Science inventions often come from necessity People are very creative and inventing is crucial for survival. Think about these inventions and how your creations were invented.**

| Richard Tung was a 10-year-old inventor who created the single light bulb. He created lights that flashed off and on in time with the songs away from the goal. A young boy invented the lava lamp. The great debate! Nobel prizes are given in physics, chemistry, medicine, as well as literature, peace, and economics. The prizes honour people and organisations who have undertaken great work in one of these areas. These are considered to be the most important inventions in the world or discovered.

| Science Fiction stories take place in a world that is different to our own. They might be set in space, in the future and help by bringing us ideas on innovation. A famous science fiction novel was written by Mary Shelley and is called Frankenstein. It is about a scientist who brings life to his creation, but instead of creating a hero, he creates a terrifying monster! How can you turn your own science fiction stories: What if a robot came to life? What if you travelled back in time or to the future? What if you were a fairy tale character? What if you were a skyscraper? What if aliens from space invaded earth? What if you were a superman? What if you were an alien? What if you were a hacker?

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| Chemistry

**Density of variables**

| Can you make corrugated slime? It’s easy, so wear an apron! Put two spoons of baking soda (1 spoon) and a tiny teaspoon of white vinegar into a bowl. Now mix the mixture quickly! You should notice the mixture becomes a bit sticky, a viscous liquid. Now try stirring it – it is a solid or a liquid? Now roll it into a ball and see what happens when you stop rolling it?

| Corrugated slime does not dissolve because it has less tiny particles of starch. The water makes the mixture stickier, so when you remove the back of the bowl. Add the dentil liquid first so honey, then milk, the washing up liquid, then oil. Wash your instructions to the Bank of England on how to check for copper coins! Write a speech to thank people for the prize you won for your invention.

| Reversible and irreversible changes

**Use density to make a large snowball** You need: an empty bottle (transparent), vegetable oil, water, food colouring, chalk and 1 lime. You can get a snowball up as high as can be! What is the maximum height of the snowball?

| To make a snowball you need a device to help you. There are 3 tools you can choose from:

- An empty plastic bottle (2 litre)
- Blueberry soda
- 3 pence for the rocket's legs

| A cork (not this - place it on the top of the bottle)

| Sticky tape

| A piece of kitchen roll

| A spoon

| Noodles and 3 pence around the bottom of the bottle. When you turn the bottle over, the pencils should have a stand on which to sit with the base at least 10 cm above the ground.

| 2. Add a supplies of baking soda onto the sheet of kitchen towel. Roll up the kitchen towel and twist the ends to hold the soda (like a sweet).

| 3. Fill the bottle with water.

| 4. Take the bottle outside. Now work quickly. Add paper with the words ‘the end of the world’ or ‘Pooh the cork into the top. Turn the bottle over. The paper will stay above the ground.

| Nature

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1. In response to the coronavirus lockdown and backed by the Government, The Oak National Academy website is welcoming a collection of high-quality lessons and online resources. For more information for parents and carers: https://www.thenationalacademy.information-for-parents-pupils/.  
2. Bitize TV continue to update their website with further home learning: https://www.bbc.co.uk/biteize/primary

Wellbeing, building resilience and PSHE - Kindness - Having Empathy  
1. Sesame Street: Mark Ruffalo: Empathy  
https://www.youtube.com/watch?v=1R1tR4HeBM

2. Family Activities for Empathy Day 9th June 2020: https://www.familyhelplab.uk/family-activities-pack

Books that explore Empathy:

- Wonder by R.J. Palacio
- Katy by Jacqueline Wilson
- Charlie and the Chocolate Factory by Roald Dahl
- The BFG by Roald Dahl

Books

1. Science Fiction

- Queen of Physics: How Wu Chien Shiung Helped Unlock the Secrets of Atom T. Robinson

2. KS1

- Science experiments can eat: Vicki Cobb

3. KS2

- Mr Shaha's Recipe for wonder: Alim Shaha

4. KS1 and Y2

- The Boy in the tower: Polie Miro

5. KS3

- Bright Sparks: Physicist D. O'Dwyer

6. KS1 and Y2

- Little Heroes: Inventors Who Changed the World: Professor Paul Rincon

Science Fiction


Writing up an experiment: https://www.bbc.co.uk/bitesize/topics/z4j3p73

Onomatopoeia: https://www.bbc.co.uk/bitesize/topics/z4m9r9/articles/z8j3p82

Writing to persuade: https://www.bbc.co.uk/teach/class-cs-clips-video/english/k5-k2-how-to-write-a-persuasive-text/ks2bdm

Rock Candy treats https://mommygopoppins.kids/how-to-make-rock-candy-with-kids

Science Fiction

- https://www.bbc.co.uk/teatime/topics/axx8v5c/articles/zy335j6/articles/xx336j/article


- Science Fiction films: https://www.literacyshed.com/the-sci-fi-100-shadow.html

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