

**Content Summary:** Fair tests, materials, floating and sinking, magnets, construction, programming

**Vocabulary:** experiment, fair test, results, prediction, material, properties, design, plan, program, instructions, construct, floating, sinking, waterproof, magnetic, gravity, forces, senses

### Communication and Language

Use the "Problem Pup" programme to introduce a series of dilemmas. Discuss with the children how best to solve the problems posed and encourage the use of a range of new vocabulary.

Think about basic ways of making sure a test is fair. Why is it important to make our tests fair?

Create a word bank including all the new vocabulary we have learnt during in the topic. Create our own "S.T.E.A.M Dictionary" with our definitions and photographs of our work this month.

### Personal Social and Emotional Development

Learn about our senses and how they help us experience things around us, name them and play associated games (feely bags, animal sound bingo, hide and seek etc.)

Talk about personal hygiene, why is it important and what steps do we need to take to stay clean during everyday tasks? (food preparation, toileting, meal times, after handling animals).

Discuss our feelings during circle time. Use the feelings scenario cards to stimulate discussion and relate the cards to our own experiences.

### Physical Development

Using what we have learnt we will build both small and large-scale levers and use them to lift objects. The children will work on finger, arm and leg strength as they work different levers,

Continue to improve pencil and scissor skills when creating our "Static Fishing" game and when practising letter formation during phonics sessions.

Practise climbing and throwing techniques when launching our paper helicopters. Focus on climbing the steps of the play equipment one-foot to one step while supported by the bannister, Study and discuss the effects of exercise on our bodies.

### Mathematics

Using our measuring skills to see how far our catapults can launch an object. Use our knowledge of number to see who was able to launch an object the furthest.

Read Spinderella and use the opportunity to practise counting and grouping skills. Use simple addition and subtraction to solve real life problems by counting on and counting back.

Improve our number recognition skills and practise counting objects accurately remembering that the last number we say is the total number of objects. Understand that the number in a group does not change when they are rearranged.

Create a simple Venn diagram and use it to sort objects into groups by their properties (colour, texture, use, size, shape etc.)

### Literacy

Create a "S.T.E.A.M Dictionary" with all the new words and concepts we have encountered during the topic. Include captions, photographs and pictures. When putting the book together we will use the opportunity to talk about alphabetical order. Sing the alphabet song to help us remember the order of the letters.

Share a range of non-fiction books about science. Look specifically at ones containing instructions for experiments. Asking the children to follow the simple instructions as they are read aloud.

Continue our phonics work using the letters and sounds programme. Work on blending and segmenting skills to help us begin to read cvc words. Build on our recognition of the "tricky" (common exception) words we might encounter in books.

**Key Texts:** Spinderella, Big Book of Science Things to Make and Do, Women in Science, Can't You Sleep Little Bear? Professor Astro Cat's Atomic Adventure, How Things Work, My 5 Senses

March 2020

**S.T.E.A.M**



### Expressive Arts and Design

Look at colour mixing, make predictions about what will happen when various colours are combined. Discuss the way that adding black can make a colour darker and adding white can make a colour lighter. Allow the children to experiment.

Design and make shadow puppets as part of our work on light and dark. Use them to put on shows for each other to watch.

Experiment with coloured shapes on the overhead projector and take time to think about how the OHP works using a combination of electricity, light and mirrors.

Build 3D models using construction toys such as mobile, Lego, multilink cubes and wooden building blocks.

### Understanding the World

Introduce the concept of magnetism and poles by exploring the wooden train set. Can the trains be attached in any configuration? Why does it matter which way we turn them? Learn the words 'repel' and 'attract'.

Try dropping different objects and think about the effect of gravity on them. Make our own paper helicopters to drop from the climbing frame.

Watch a short clip of a Van-De-Graaff generator Use static to create a fishing game with paper fish and plastic rulers. Blow up balloons and use them to create static, Ask the children to observe the effects of static on their hair.

Learn about how levers can be used to lift heavy objects. Explore some examples of levers being used in everyday life. Create simple catapults using levers. Float paper fish on water and make them "swim" using soap and surface tension.

**Key Dates:** St David's Day (1<sup>st</sup>), World Book Day (5<sup>th</sup>), British Science Week (6<sup>th</sup>-15<sup>th</sup> March), Holi (10<sup>th</sup>), Red Nose Day (15<sup>th</sup>), St Patrick's Day (17<sup>th</sup>), Mothering Sunday (22<sup>nd</sup>)

**Trips, Experiences and Visitors:** Mad Science Workshop, British Science Week Activities