

## How can I help develop my child's understanding of science at home?

- Reading – non-fiction / fact based books about animals (See our list of National Curriculum linked texts below)
- Walk in the park or garden – practice identifying the types of tree, plants and animals observed
- Cooking – looking at changes in materials with mixing and heat
- Helping with DIY – looking at materials and what they are like and where they are used and why
- Look at inventions around the home and how they work
- Visit STEM-themed museums
- Pets – Research their life-cycles, diets, natural habitats
- Look at the weather forecast and the actual changes in weather and seasons outside
- Watch TV programmes including Steve Backshall's 'Deadly 60' and 'Expedition'.
- Watch BBC documentary programmes such as: Seven Worlds, One Planet; The Hunt; Planet Earth I, II & III; Dynasties; Africa; Blue Planet I & II etc., many of which can be accessed through BBC iPlayer ([www.bbc.co.uk/iplayer](http://www.bbc.co.uk/iplayer))



### Websites and Apps:

**Bored Teachers – 40 Science Websites for Teachers and Parents (Use Early Learners & Elementary):**

<https://www.boredteachers.com/resources/40-science-websites-to-keep-kids-engaged-and-entertained-at-home>

**The School Run:** <http://www.theschoolrun.com/what-your-child-learns-key-stage-1-science>

**Science Kids:** <http://www.sciencekids.co.nz/experiments.html>

**BBC Bitesize:** <http://www.bbc.co.uk/bitesize/ks1/science/>

**Crickweb:** <http://www.crickweb.co.uk/ks1science.html>

**Met Office:** <http://www.metoffice.gov.uk/learning/weather-for-kids/>

**STEM Activities:** <https://www.playdoughtoplato.com/stem-activities-for-kids/>

**STEM Activities:** <http://www.stem.org.uk>

### Some story books to read...

Y1: One Year With Kipper (Mick Inkpen)

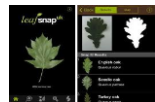
Y1: Superworm (Julia Donaldson & Axel Scheffler)

Y2: Handa's Surprise (Eileen Brown)

Y2: The Gruffalo (Julia Donaldson)



Birds of Britain Pro:  
Lite Edition



Leaf Snap

PictureThis – Plant  
Identifier



# A Parents' Guide to Key Stage 1



# SCIENCE

# What does my child need to know by the end of Year 2?

## The National Curriculum for Science in Key Stage 1

Science is split into two parts:



### Working Scientifically (The processes of Science)

Children by the end of Year 2 need to be able to:

- Ask simple questions and recognise that they can be answered in different ways.
- Observe closely, using simple equipment.
- Performing simple tests.
- Identify and classify living things.
- Use their observations and ideas to suggest answers to questions.
- Gather and record data to help in answering questions.

### Year 1 Scientific Knowledge (Facts and information)

- **Biology - Plants:** Identifying and naming plants and looking at their basic structure and purpose.
- **Biology - Animals including humans:** Identifying and naming a range of animal types and understand how and why they are grouped (e.g. mammals, birds, amphibians etc.). Identify animals by their diet – herbivores, carnivores and omnivores.
- **Chemistry - Everyday materials:** Naming and looking at their properties and uses.
- **Physics - Seasonal changes:** Observing changes across the four seasons and looking at different types of weather and daylight length.

### Year 2 Scientific Knowledge (Facts and information)

- **Biology - Living things and their habitats:** Including dependence within habitats and micro-habitats, food chains and living/dead and never been alive.
- **Biology - Plants:** Observing how seeds and bulbs grow into plants and what plants need to stay healthy
- **Biology - Animals including humans:** Focusing on growth, nutrition/survival and exercise
- **Chemistry - Everyday materials:** Naming them; comparing their uses and looking at how they can be changed by exerting force (bending, twisting etc.).

# Science capital – what is it?

Science capital is how much a person is exposed to the knowledge and understanding of STEM (Science-Technology-Engineering-Mathematics), both academically and in the wider world around us. It helps children reason scientifically, linking ideas and providing them with a broader, increasingly balanced view of Science's key role in the wider world. Below are some STEM-related attractions which can help increase your child's Science capital (and they're fun too!):

### Free Admission:

- Bolton Museum (Aquarium) - Bolton
- Museum of Science and Industry – Manchester
- National Science and Media Museum – Bradford
- Brockholes Nature Reserve – Preston (Off M6)
- Local country parks (Seven Acres, Doffcocker Lodge, Moses Gate, Jumbles, Cutacre, Borsdane Woods)
- Bolton's reservoirs, including: Anglezarke, Wayoh, Rivington etc.
- The World Museum - Liverpool



### Entrance Fee Charged:

- Space Port - Ellesmere Port
- Jodrell Bank - Cheshire
- Eureka - Halifax
- Magna - Rotherham
- Sealife Centre - Blackpool
- Sealife Centre - Manchester
- The Deep - Kingston-Upon-Hull
- Lakes Aquarium (Southern tip of Lake Windermere)
- Blackpool Zoo - Blackpool
- Chester Zoo - Chester
- Knowsley Safari Park - Knowsley
- South Lakes Wildlife Park – Dalton-in-Furness
- Smithills Farm – Bolton
- Bowland Wild Boar Park – Lancashire
- Martin Mere Wetland Centre – Burscough, Lancashire



### The Lancashire Wildlife Trust:

- Events at The Hive at Moss Bank Park:
- [www.lancswt.org.uk/hive-moss-bank-park](http://www.lancswt.org.uk/hive-moss-bank-park)
- Lancashire Wildlife Trust at Seven Acres (Bury Road)

### Red Lane Facebook:

<https://m.facebook.com/redlaneprimaryschool/>



### School Website:

[www.red-lane.bolton.sch.uk](http://www.red-lane.bolton.sch.uk)

<https://www.red-lane.bolton.sch.uk/parents/virtual-school/> (Virtual School)

