

- English:**
- Fiction ~ Fantasy
  - Non Fiction ~ Information texts

- Maths:**
- Place Value
  - Addition
  - Subtraction

# Oak Class ~ Autumn Term 1 ~ Topic Web

**Science:** Light & Sound

**The way we will investigate:**

**Year 3 & 4**

- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- identifying differences, similarities or changes related to simple scientific ideas and processes
- **using straightforward scientific evidence to answer questions or to support their findings.**

**Year 5 & 6**

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
- **identifying scientific evidence that has been used to support or refute ideas or arguments.**

**What we will investigate:**

**Year 3: Light and Astronomy: Light, reflections and Shadows**

- Recognise that they need light in order to see things and that dark is the absence of light.
- Notice that light is reflected from surfaces.
- Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.
- Recognise that shadows are formed when the light from a light source is blocked by a solid object.
- Find patterns in the way that the size of shadows can change.

**Year 6: Light and Astronomy - How light travels**

- Recognise that light appears to travel in straight lines.
- Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.
- Explain that we see things because the light that travels from light sources to our eyes or from light sources to objects and then to our eyes (and represent this in simple diagrammatic form).
- Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

**Year 4: Sound**

**Vibrations**

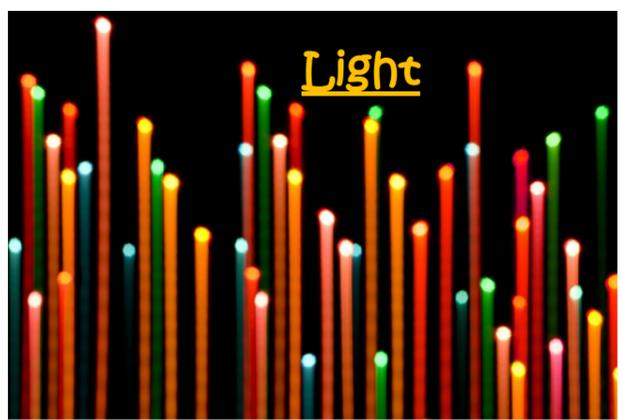
- Identify how sounds are made, associating some of them with something vibrating.
- Recognise that vibrations from sounds travel through a medium to the ear.
- Find patterns between the volume of a sound and the strength of the vibrations that produced it.
- Recognise that sounds get fainter as the distance from the sound source increases.
- Recognise that sounds can be made in a variety of ways (pluck, bang, shake, blow) using a variety of things (instruments, everyday materials, body).
- Sounds travel away from their source in all directions.
- Vibrations may not always be visible to the naked eye.

**Pitch**

- Find patterns between the pitch of a sound and features of the object that produced it.
- Sounds can be high or low pitched.
- The pitch of a sound can be altered.
- Pitch can be altered either by changing the material, tension, thickness or length of vibrating objects or changing the length of a vibrating air column.

**Muffling/blocking sounds**

- Recognise that vibrations from sounds travel through a medium to the ear.
- Sounds are heard when they enter our ears (although the structure of the ear is not important key learning at this age phase).
- Sounds can travel through solids, liquids and air/gas by making the materials vibrate.
- Sound travel can be reduced by changing the material that the vibrations travel through.



**DT: Building an Anglo Saxon Village ~ Strengthening and joining techniques.**

**Year 3 & 4**

**Design**

- Record the plan by drawing using annotated sketches
- Use prototypes to develop and share ideas.
- Consider aesthetic qualities of materials chosen.
- Use CAD where appropriate. (Computer Aided Design)

**Make**

- Prepare pattern pieces as templates for their design.
- Select from techniques for different parts of the process.

**Evaluate**

- Draw / sketch existing products in order to analyse and understand how products are made.
- Identify the strengths and weaknesses of their design ideas in relation to purpose / user.
- Consider and explain how the finished product could be improved.
- Investigate key events and individuals in design and technology.

**Technical Knowledge**

- Strengthen frames with diagonal struts.
- Use an increasingly appropriate technical vocabulary for tools materials and their properties.

**Year 5 & 6**

**Design**

- Plan the sequence of work.
- Devise step by step plans which can be read / followed by someone else.
- Use exploded diagrams and cross-sectional diagrams to communicate ideas.

**Make**

- Make prototypes.
- Use researched information to inform decisions.
- Produce detailed lists of ingredients / components / materials and tools.
- Refine their product - review and rework / improve.

**Evaluate**

- Identify the strengths and weaknesses of their design ideas.
- Report using correct technical vocabulary.
- Discuss how well the finished product meets the design criteria having tested on/discussed outcomes with the user.

- Understand how key people have influenced design in a variety of contexts.
- Investigate key events and individuals in design and technology.

**Technical Knowledge**

- Use the correct vocabulary appropriate to the project.
- Join materials using appropriate methods.
- Stiffen and reinforce complex structures.

*The children will use what they have learnt in history about the Anglo Saxons to design and create a specific Anglo Saxon building and use the DT techniques taught including strengthening and joining to ensure its stability.*

**END POINT:**

**History: Roman impact on Britain to Settlements of Anglo Saxons & Scots**

**Year 3 & 4**

**Chronology**

Use dates and historical terms when ordering events and objects.

- Identify where people and events fit into a chronological framework.

**Events, People and Changes**

- Describe some aspects of the Roman Empire and recognise its impact on Britain.

**Interpretation, Enquiry and Using Sources**

- Use sources to address historically valid questions and hypotheses.
- Recognise why some events happened and what happened as a result.
- Identify historically significant people and events in different situations.

**Communication**

- Discuss significant aspects of, and connections between, different historical events.
- Select and organise relevant historical information to present in a range of ways.
- Use relevant and appropriate historical terms and vocabulary linked to chronology.

**Year 5 & 6**

**Chronology**

- Use dates and a wide range of historical terms when sequencing events and periods of time
- Develop chronologically secure knowledge of the events and periods of time studied.
- Analyse links and contrasts within and across different periods of time including short-term and long-term time scales.

**Events, People and Changes**

- Describe some aspects of Britain's settlement by Anglo-Saxons and Scots.
- Describe aspects of the Viking and Anglo-Saxon struggle for the Kingdom of England in the time of Edward the Confessor.

**Interpretation, Enquiry and Using Sources**

- Regularly address and sometimes devise historically valid questions and hypotheses.
- Give some reasons for contrasting arguments and interpretations of the past.
- Describe the impact of historical events and changes.
- Recognise that some events, people and changes are judged as more significant than others.

**Communication**

- Acknowledge contrasting evidence and opinions when discussing and debating historical issues.
- Use appropriate vocabulary when discussing, describing and explaining historical events.
- Construct informed responses to historical questions and hypotheses that involve thoughtful selection and organisation of relevant historical information including appropriate dates and terms.
- Choose the most appropriate way of communicating different historical findings.

**RE: Life as a Journey and Pilgrimage**

Are there any places in the world that you would love to visit? Take a moment to think about why. Why do you think Christians would decide to go on a pilgrimage to the Holy Land - the land where Jesus was born and lived? What do you think they would hope to see and do when they were there? Do other Faiths go on pilgrimages? We will look at the pilgrimages and sacred places visited by Jews, Sikhs and Hindus.

*The children will research and record information about the different pilgrimages taken by people of different Faiths. They will start by thinking about somewhere special to themselves.*

**Music: This will be completed each term by Mrs Monteath**

**PE:** Striking & Fielding & Gymnastics

**OAA & ORIENTEERING:**

**Year 3 & 4:**

**Developing Skills**

- Plan routes around obstacles (e.g. PE apparatus, table / chairs in classroom).
- Orientate a map consistently and accurately. Follow a simple star orienteering course and simple point to point orienteering course on school grounds recording controls.
- Work cooperatively with others to solve challenges.

**Year 5 & 6:**

**Developing Skills**

- Follow a simple course using eight points of the compass and mark on a map the position of a ground.
- Work cooperatively with a partner and small group.
- Follow a simple route on an OS map and keep it set and identify different features and successfully complete a timed orienteering course (competition).
- Accept responsibility when working in a team.

**STRIKING & FIELDING (Cricket):**

**Year 3 & 4:**

- Perform using a number of sending and receiving skills with consistency and accuracy. Travel with an object i.e. running or dribbling a ball with / without equipment.
- Master fundamental movement skills and start to develop sport specific skills. Develop a broader range of skills using different sports and activities.

**Year 5 & 6:**

- Continue to develop sport specific skills, applying them with control and precision.
- Perform a number of travelling skills, i.e. with and without equipment, sending and receiving skills with consistency, accuracy, confidence, control and speed.

**EVALUATING SUCCESS:**

**Year 3 & 4**

- Describe what is successful in their own performances.
- Identify aspects of their game that needs improving and say how they could go about improving them.

**Year 5 & 6**

- Identify aspects of their own and others' performances that need improvement and suggest how to improve them, i.e. which aspects were performed consistently, accurately, fluently and clearly.
- Watch performances and games and use criteria to make judgements and suggest improvements.

**END POINTS:**

**STRIKING & FIELDING:** The children will learn the skills to play a complete game of cricket, reflecting on their performance and teamwork and what they could do to improve themselves further.

**Computing:** Digital Literacy with Mrs Hudd

**Year 3 & 4~ Digital Literacy**

- Use technology respectfully, responsibly and safely, knowing how to keep their information and passwords secure.
- Know different ways of reporting concerns about content and contact involving the internet and other communication technologies.
- Have a greater understanding of what is acceptable and unacceptable online behaviour.
- Start to develop strategies to verify the reliability and accuracy of information on the internet and develop an awareness of copyright.

**Year 5 & 6~ Digital Literacy**

- Be competent users of technology using it safely, respectfully and responsibly and know about digital footprints and 'strong' passwords.
- Demonstrate that they can identify the risks involved with content and contact and they know a wide range of ways of reporting any concerns they have.
- Understand what acceptable and unacceptable online behaviour is.
- Use strategies to verify and evaluate the reliability and accuracy of information on the internet and understand what copyright and plagiarism is and how it relates to their work.

The children will look at various aspects of how to use the internet safely, how to search effectively and how to assess the reliability of the information that we find. The key learning will include: \*Revisiting our Internet Safety agreement

\*Considering our online presence - passwords, how to show respect online, writing a good email and customising privacy settings

\*Considering the impact of cyber bullying; interpreting emotions behind texts and mes

**PSHE:** Relationships ~ Me & My Relationship

*The children will follow the SCARF resources to learn about themselves and their relationships with others. this will be done in a split session with Year 3 & 4 working together and Year 5 & 6 working together to ensure the content is appropriate and aimed at the correct age group .*

**END POINT:** For the children to make a smooth transition back into school after the long summer and Covid lockdown. Time will be taken at any time to reflect on this and support the chil-