

## LCA Subject on a Page

#### What will you see in Physics lessons?

In physics lessons, pupils will have the opportunity to problem solve independently as well as with others in the classroom. They will be introduced to new ideas and concepts that help to explain the world we live in. Pupils will be encouraged to consider how to test, prove and investigate using their continually developing practical skills. This will include planning a method for some investigations, risk assessing and investigating safely, evaluating data, forming conclusions and assessing bias. Pupils will develop their numeracy skills through the calculation of mean values, standard form, constructing and analysing graphs, and calculating area and volume. Pupils are encouraged to read aloud in lessons, and to develop their literacy skills by identifying command words in exam style questions. Key terminology is introduced at appropriate points in time, and the use of dictionaries and text books is encouraged for definitions and spellings.

# What assessment (formative and summative) methods do we use in Physics?

Formative assessment is evident in every lesson. This is achieved, through self, peer and live marking, questioning and recapping at the start of each lesson. Teachers will observe where the gaps are and will address these within the lesson.

Summative assessment happens each half term. Teachers mark the assessment paper and provide an opportunity for pupils to identify their own areas for development and improvement tasks.

What are the common misconceptions that pupils have and make in Physics that we need to address?

- Energy can be lost and used up.
- Light is only reflected away from shiny surfaces.
- When a wave moves, particles move along with the wave form.
- The terms energy and forces are interchangeable.
- Distance & displacement and speed & velocity are the same quantities.
- If an object is at rest, no forces are acting on it.

#### What will you see in pupils' Physics books?

Title, date and learning purpose each lesson. Evidence of new learning and application of the new learning through the use of questions. Practical investigation write ups will be seen where appropriate. Self and peer assessment as well as live marking will be observed.

### Secondary PHYSICS

### Physics is about....

the study of physical matter, energy, and how they work together. It studies objects ranging from the very small using quantum mechanics to the entire universe using general relativity.

Information from the last 12 months in Physics reveals particular strengths in.....

Use of equations and success in calculation questions.

Information from the last 12 months in Physics reveals a particular focus should be on.....

Extended writing and application of the physics to more obscure real lie examples.

# What will you see in Physics at Liverpool College that extends beyond the National Curriculum and / or exam specifications?

In each key stage, class teachers will introduce ideas and concepts from the next key stage/level.

Parents can help their children in their Physics studies by....

✓ Talking to their child about the new learning and looking in their exercise book. Support with homework and revision using KS3/BBC Bitesize and other online resources noted on the book cover.