



# HOLBROOK SCIENCE ROUTINE

## LEARNING JOURNEY



At the beginning of every Science lesson, we share our learning journey using lesson starters. This allows us to see our **Red Letter Learning** for the topic, in order to understand our overall aims, and to see the small steps we are taking to get there. We look at which Scientific area we will be investigating and how this links to the real-world. We use a 5E model.

## LOOK BACK MOVE FORWARDS



We begin every lesson with a small recap—through teacher input, quizzes and other methods—to assess and ensure our knowledge is retained. We call it: **Look Back, Move Forwards**. **WE will recap red letter knowledge from a previous lesson.**

## ENGAGE



The main learning is introduced through teacher-led input and questions; expert knowledge is shared and children have the opportunity to use **DEVELOPING EXPERTS** information slides to engage and learn new **rocket words**. Children will be asked questions in order to monitor and modify understanding and ensure they are ready to apply their learning in a carefully selected task.

## EXPLORE



Our activities are carefully modelled, guided or led by the teacher in order to provide scaffolding for us to apply and explore new learning together. A lab investigation or hands-on activities are usually introduced in this phase as students attempt to investigate a problem. Conflicting ideas, questions, and confusion are common and help students identify what they need to know before new terms or concepts are introduced in the Explain phase.

## EXPLAIN



With the teacher's guidance, students explain the concepts they explored in the previous phase and demonstrate their understanding of the new terms that were introduced. Depending on the topic and key stage, teacher-led instruction might be necessary to address any confusion and questions that came up in the Explore phase. Questions can make learning more meaningful, interactive, and participatory.

## ELABORATE



Many lessons will include more open-ended activities where we have the opportunity to explore our learning independently. This ensures there is no limit in our lessons and that there are always opportunities for us to be stretched or to "**dig deeper**" into a topic. Students apply their knowledge to new experiences, experiments and investigations. They extend their conceptual understanding as they solve a problem in a new context before evaluation in the last phase of the 5E model.

## EVALUATE



At the end of the lesson, we have a plenary where we recap and assess our learning. We use our learning ladders for this. Students evaluate their learning and demonstrate their understanding and mastery of key concepts. Evaluation doesn't have to be limited to a quiz or test. It can be a product such as a presentation, a poster or discussion. We look forwards to the next lesson at what we will be learning next and why.