SCIENCE AT CEDAR PARK SCHOOL AND NURSERY

SUBJECT INTRODUCTION

At Cedar Park School we place a high value on Science and realise the importance of all STEM subjects in our modern world. Many of the jobs our children will do haven't been invented yet so we need to educate the children to question, challenge and test the world around them. By doing this within the safety of our Science curriculum we will produce life-long inquisitive learners.

Children and staff enjoy Science at Cedar Park, especially the practical elements of it. We aim to make it a fun and exciting subject that inspires the children whilst also covering all that the curriculum requires of us. We use Developing Experts as our way of doing this.

INTENT

The aims and objectives at Cedar Park School for Science are that we want pupils to:

- Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.
- Gain the scientific knowledge required to understand the uses and implications of science, today and for the future.

TO IMPROVE, OUR PRIORITIES ARE:

- Audit and update resources for current topics and new scheme.
- Make sure Scientific Enquiry is embedded in all Science lessons in the new scheme.
- Embed assessment into Whole School approach to Science..
- Foster a love of Science within the children at Cedar Park School.

IMPLEMENTATION

We teach Science once a week at Cedar Park. In KS2 these lessons are often extended to go across the majority of an afternoon, allowing ample time for exploration and investigation.

There is a strong emphasis on both scientific knowledge and working scientifically. As such, each unit consists of a variety of ways in which both knowledge and skills are learnt by the children.

Each lesson will consist of the following elements:

1. A High Five - triggering prior learning
2. Sharing the objective
3. Introduction to Rocket Words- new vocabulary
4. New learning through diagrams, explanation and discussion
5. Expert Film
6. Mission Assignment
7. Mission Quiz- assessment

Each unit begins with the distribution of key vocabulary and a knowledge organiser and finishes with an end of unit check.

STRENGTHS

- Consistency given through use of Developing Experts. This was a new scheme introduced in 23-24 but it is already well regarded by the staff and is helping provide consistent learning patterns for the children.
- There is now a more robust assessment procedure in place with the end of unit checks used alongside Teacher Assessment.
- Science Week is always a highlight with a variety of activities happening over the years that have included: Secondary Teachers coming in, Yr6 workshops to the whole school, Science Boffins doing whole school assemblies and workshops.
- Pupil voice has highlighted that children enjoy Science, especially the experiments. They have commented that there are more of them with Developing Experts but as always they want more.

CHILDREN WITH BARRIERS TO LEARNING

We have focused on children that have SEND in staff meetings and have used science as a subject that can be adapted to meet the needs of all children. In addition to the adapted tasks that Developing Experts provide, we also use knowledge organisers and vocabulary sheets (Rocket Words) to aid learning.

Those that require it can access the knowledge organisers, Rocket Words and the Expert Film before the lesson through pre-teaching, to reduce cognitive overload during it.

SCIENCE IN EYFS

Developing Experts has an Early Years – Understanding the World section. This follows the same structure as the National Curriculum units so prepares the children for their future Science journey and makes EYFS part of the whole school.

SUBJECT OUTCOMES

In 2024/25, 87% of KS2 pupils left the school Working at the Expected Standard in Science.

SUBJECT ASSESSMENT

Teachers will be assessing learning in every lesson of a unit to make a decision on the best pathway to the end of it (see assessment policy).

In addition to ongoing teacher assessment throughout a unit, each child will do an end of unit check. Teachers will then use this information to help shape:

- 1:1 conferencing
- High Fives
- Check In
- Summative judgements

The end of unit assessment scores help the Teacher to make a Teacher Assessment at the end of the year which goes on Reports and is recorded on Target Tracker.

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