

## Intent

In order to inspire future scientists, the Science curriculum will be a stimulating one; one that holds investigation, exploration and inquiry at its core. We aim to develop the curiosity of the young minds we provide for, ensuring that scientific opportunities are interwoven throughout the curriculum.

### We intend to do this by:

- \*Ensuring our children have access to a high quality Science curriculum with regular opportunities for investigation.
- \*Creating an environment where rich, Scientific vocabulary is developed and used accurately.
- \*Ensuring children are curious and confident, not being afraid to take risks and extend their understanding.

## Implementation

\*The National Curriculum statutory statements will be planned and sequenced through quality LTP's and MTP's

- \*Teach lessons allow inquiry and development of knowledge
- \*Provide quality first teaching in line with the teaching standards
- \*Science will be progressive through all year groups.

\*Children will be allowed to extend their learning through quality feedback and questioning

### All teachers:

1. Gauge the children's understanding of the topic through Concept Cartoon driven initial lessons—this will then be used to progress learning
1. 'Understand where their children need to be' through a secure understanding of year group expectations and/or pre key stage expectations and incisive, ongoing, formative assessment
3. 'Know how they are going to get them there' through the use of a range of strategies to promote independence, mastery and high expectations of ALL.
4. Plan for progression during and between lessons.

## Impact

To measure impact we will ask:

What impact has the implementation had on:

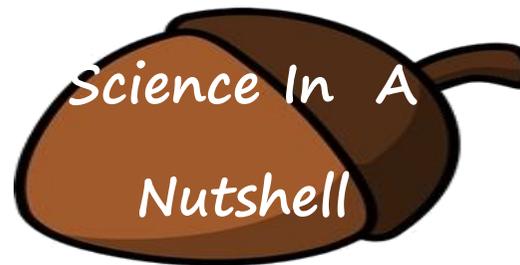
- \*Ability to use scientific skills accurately
- \*Use Scientific vocabulary in oral and written sentences
- \*The ability to use Scientific skills and understanding across the curriculum
- \*The coverage of the children's learning
- \*The scientific questions created and developed by the children
- \*Recall of knowledge from concept sequenced lessons

A Scientific skill is mastered when the children is able to use and perform the skill with no supportive aids. The children should be able to use the skill out of context and apply their understanding of this skill to a situation.

This will be assessed through assessment, tracking, pupil progress meetings, performance management, moderation and standardisation.

## Our priorities to improve Science are:

- \*MTP that allow for progression
- \*Develop Scientific skill use and understanding
- \*Allow children the opportunity to develop their Scientific skills through regular investigation
- \*Create a vocabulary rich environment



## Science In A Nutshell

## In a Science lesson at TLEA, you will see:

- \*Lesson which are well paced - "teacher talk" is limited.
- \*Working Walls which reflect the current topic and are an aid to children's learning
- \*A climate for learning that is calm and engaging
- \*Practical resources are ready for children to in investigation with minimal to no teacher explanation
- \*Misconceptions being anticipated and addressed

## Our Non Negotiable:

- \*Toppers for EVERY lesson show a clear outcome and steps objectives needed to achieve
- \*Books are marked after every lesson and feedback given where appropriate
- \*MTP are completed and put on staff shared by the last day (working day) before the next Science module starts
- \*Daily lesson planning is passed on AT LEAST the night before so it can be adapted
- \*At least 1 piece of quality feedback per topic

## How we identify and tackle children's misconceptions and underperformance:

- \*Pre -teaching of topics to be provided for those children most in need
- \*Planning will take into account previous learning and is assessed at the beginning of each unit—See school Science progression doc
- \*Science Concept Cartoon use at the start of each module to be assessed by teacher
- Work is assessed at the end of every session and differentiated for the next session appropriately.

## What we do to assess our children:

- \*AFL within lessons is effective and is used to inform subsequent lessons
- \*Knowledge based questions before the start of each main input based on previous learning
- \*Track statutory statements through tracker