

# Shield Row approach to Science



## Thought Shower

The first activity within a unit introduces the topic to the children and helps them to **CONNECT** this to things they have already learnt in other topics. It is so important that children see how interconnected science is and understand the bigger picture.

Then we **ACTIVATE** any current knowledge by allowing the children time to consider what they might already know about the topic.

Finally, we encourage children to **QUESTION** to motivate their curiosity.

## Let's Get in Role...

It's **CHALLENGE** time! Children will be given a clear role that they will take on for the entirety of the topic *e.g. We are dietitians*. Once the children understand the role and what it entails in the real world, they will receive a challenge. This might be in the form of a letter, email, post card or simply just a task card. The challenge will provide a clear **PURPOSE** for learning and set up a consolidation task which will be completed at the end of the unit of work.

Relevant and interesting contexts will help to get children hooked into primary science. The range of contexts offered will include: problem solving, being scientists, role play, considering issues which involve themselves, society and the world.



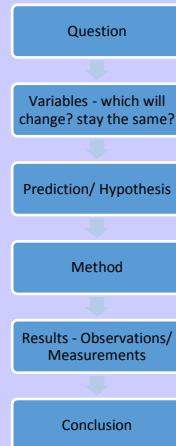
## VOCABULARY

**Key vocabulary** will be introduced and taught using the STAR method – Select, Teach, Activate, Review. All vocabulary will be displayed and referred to during sessions.

## Teaching Strategies

- Exposition and modelling
- Effective questioning
- Group/ whole class discussion & debate
- Investigation
- Observations
- Analysis
- Enquiry
- Research
- Field work
- Surveys
- Simulations
- Enrichment – visits, visitors, experiences

### Investigation



## Knowledge and Skills

The sequence of lessons that follow have been developed on the premise that children should be offered **'practical' or 'hands on' opportunities** in learning. Children, just like the forensic scientist, will have a question or problem to solve; they will need to do something to collect information and evidence and use that evidence to answer their question, solve their problem and lead them to draw a conclusion. This is exactly what happens in the working world of a scientist, and it is thinking and working scientifically that we are asking children to emulate. We aim to promote and feed children's natural curiosity by encouraging investigation and develop them as independent learners by championing choice and personal decision making. Lessons will also allow for the application and consolidation of reading, writing, maths and computing skills.

Lessons will begin with time to recall, revisit and consolidate learning from the previous session and plenaries will be used to engage pupils in constructive deep learning to support the development of **sticky knowledge**.



## Knowledge Mats

Knowledge mats are used as a supportive resource.

They include key vocabulary, facts and useful information which will allow children to keep revisiting and revising throughout the topic. Knowledge mats encourage discussion, can be used as a regular retrieval and reference tool, they are good reminders of key vocabulary and spelling, and they will make up part of the class display and be added to as the children's knowledge deepens.

## Consolidation & Assessment

The challenge set at the beginning of the unit is completed, so the children succeed in accomplishing what they set out to do within their role. This activity allows children to go back over and use all they have learnt.

On completion of the topic a mini quiz is carried out to evaluate learning. At the end of the year a short summative assessment is given that takes account of the knowledge children are expected to have at the end of each academic year and assesses long term memory.