



Focus area: Science

Curriculum considerations for children across all areas of SEN in Science

- Pedagogy and content adapted to meet the child's needs.
- For those working more than 2 years behind adapted sequencing/basic skills focus time delivered to fill gaps.
 - Recognising and supporting Science where it is an area of strength or interest for a child.

Additional enhancements

- Pre teaching of vocabulary

Key Learning Challenges:
Understanding scientific vocabulary
Understanding instructions.
Understanding instructions for tasks.
May have noise or smell sensitivities which could be triggered.

Communication and Interaction

- Breaking down instructions into small chunks,
- Providing visual reminders of instructions.
- Pre teaching new vocabulary prior to lessons.
- Sending home key vocabulary on word mats prior to a unit of work.
- Vocabulary mats with visual prompts.
- Giving increased processing time (10 second rule, I will come back to you later').
- Scaffolding language around scientific reasoning 'I think the answer means...'
- Recognise that some everyday words might have a specific scientific use and make this explicit.
- Use of mnemonics to support recall.

Key Learning Challenges:
Recalling previously taught knowledge.
Working memory
Understanding scientific vocabulary.
Difficulty writing down ideas/explanations
Difficulty explaining their ideas
Understanding how to use scientific equipment safely.

Learning and Cognition

- Pre teaching of scientific vocabulary.
- Coloured paper/overlays
- Vocabulary mats with visual prompts.
- Additional concrete resources
- Mind maps connecting to previous knowledge/skills
- Provide visual prompts for each small step.
- Use of diagrams to explain processes/for explanations.
- Alternative methods of recording – photos, videos, Ipad
- Use of visuals/reduced language to explain learning
- Alternatives to written answers to show understanding – multiple choice, circling answers, drawing the answer, sticking/Velcro, matching
- Increasing time to practise experiments practically.

Key Learning Challenges:
Likely to have gaps due to missed learning.
Difficulties around concentration/task completion.
Handling scientific equipment safely

Social, emotional and mental health

- Using task planner/task chunking.
- Time framing and use of timers.
- Check ins
- Checking understanding/ small group/individual modelling
- Visual prompts
- Clear guidance around using equipment safely.

Key Learning Challenges
Being able to read the text/questions/board.
Being able to hear the teaching/instructions

Physical and Sensory

- Enlarged questions.
- Use of coloured paper/overlays
- Seated near the front of class.
- Use or radio aids by teacher/pupil (as advised by HI service).
- Alternations to texts (as advised by vision service).

EYFS Example

- Vocabulary mats with visual prompts.
- Pre teaching new vocabulary prior to lessons.
- Increasing time to practise experiments practically.
- Breaking down instructions into small chunks
- Use of visuals/reduced language to explain learning
- Checking understanding/ small group/individual modelling

KS1 Example

- Breaking down instructions into small chunks
- Pre-teaching of new vocabulary prior to lesson
- Alternative methods of recording
- Alternative to written answers eg sticking
- Use of visuals/reduced language to explain learning
- Checking understanding/ small group/individual modelling

KS2 Example

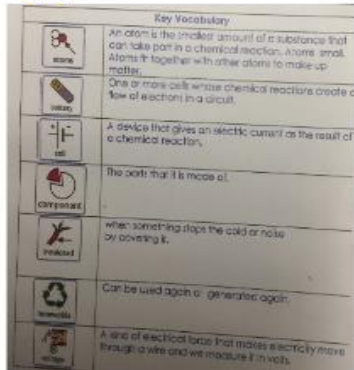
- Pre-teaching of new vocabulary prior to lesson
- Alternative methods of recording
- Alternative to written answers eg sticking
- Use of visuals/reduced language to explain learning
- Checking understanding/ small group/individual modelling

What does this look like in practice (pictorial examples)

Pre-teaching of vocabulary KS1



KS2



Alternative methods of recording



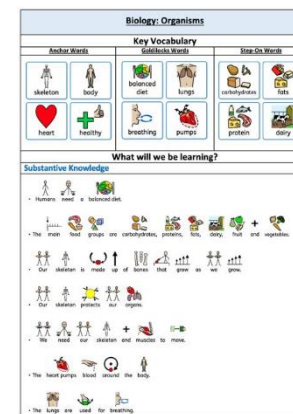
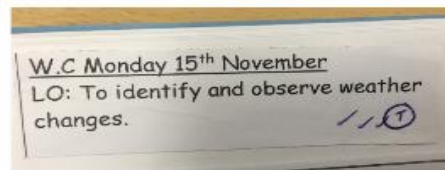
Use of visuals/ reduced language to explain learning



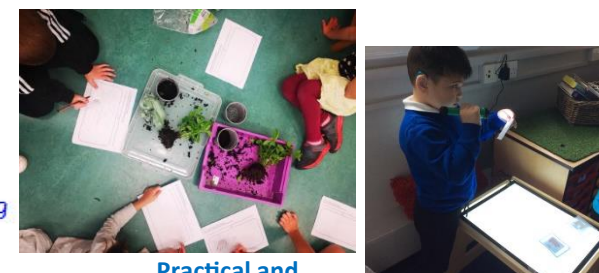
Alternative to written answers eg sticking



Checking understanding, small group/ individual modelling



Adapted knowledge organiser



Practical and sensory exploration opportunities

