Subject Sequence - Scientist

Sonar Curriculum

Ask Questions

- Ask questions
- Suggest answers to questions
- Ask relevant questions

- Use different types of scientific enquiry
- Use straightforward scientific evidence to answer questions

- Plan different types of scientific enquiries to answer questions
- Indentify scientific evidence that has been used to refute/ support ideas and arguments

Make Observations

- Observe closely

- Make systematic observations

- Independently decide which observations to make

Perform Tests

- Perform simple tests

- Set up simple practical tests
- Understand comarative and fair tests

- Recognise and control variables where necassary
- Explain which variables need to be controlled and why

Juniper

Subject Sequence - Scientist

Sonar Curriculum

Use Equipment

- Use simple equipment eg egg timers, hand lenses
- Use range of equipment to measure accurately eg data-loggers, thermometers
- Take measurements using a range of scientific equipment with accuracy and precision

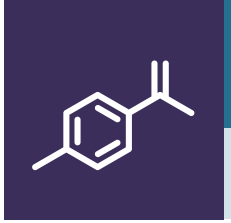
Gather Data

- Gather and record data
- Gather, record, classify and present data in a variety of ways
- Record findings using scientific language, drawings, labelled diagrams, keys, bar charts and table
- Report on findings orally and in writing
- Record data and results of increasing complexity using scientific diagrams, classification keys, tables, scatter graphs and line graphs
- Reports and present findings (including conclusions, casual relationships and reliability results) in oral and written forms eg *displays/presentations*

Analyse Data

- Discussed what they have found out
- Use results to draw simple conclusions, make predictions, suggest improvements and raise further questions
- Identified differences, similarities or changes related to scientific processes and ideas
- Used test results to make predictions to settle further comparative and fair tests
- Identify scientific evidence that has been used to refute/ support ideas and arguments

Juniper



Ask Questions

Intent (Standardised Objectives)

Sonar Curriculum

Year 1

- Start to ask and suggest answers to simple scientific questions
- Use first-hand practical experiences to find answers

Year 2

- Ask and raise their own scientific questions
- Use first-hand practical experiences to find answers

Year 3

- Ask relevant scientific questions and suggest how to answer eg practical test vs secondary sources
- Develop different types of scientific enquiry

Year 4

- Generate and answer scientific questions using evidence
- Select most appropriate type of scientific enquiry

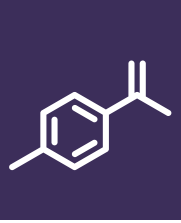
Year 5

- Use science experiences to plan different types of enquiry

Year 6

- Plan different types of scientific enquiry in order to answer questions
- Use science experiences to explore ideas and raise different types of question

Juniper



Make Observations

Intent (Standardised Objectives)

Sonar Curriculum

Year 1

- Start to observe closely

Year 2

- Observe closely

Year 3

- Develop skills of systematic observation

Year 4

- Make systematic observations

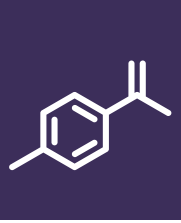
Year 5

- Independently decide which observations to make

Year 6

- Independently decide which observations to make

Juniper



Perform Tests

Intent (Standardised Objectives)

Sonar Curriculum

Year 1

- Perform simple tests with support

Year 2

- Perform simple tests

Year 3

- Set up simple practical enquiries
- Understand comparative and fair tests

Year 4

- Suggest, set up and carry out simple practical enquires
- Understand comparative and fair tests

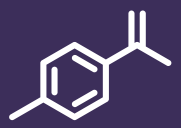
Year 5

- Recognise and control variables where necessary

Year 6

- Recognise and control variables where necessary
- Explain which variables need to be controlled and why

Juniper



Use Equipment

Intent (Standardised Objectives)

Sonar Curriculum

Year 1

- Begin to use simple equipment eg egg timers, hand lenses

Year 2

- Use simple equipment eg hand lenses, egg timers

Year 3

- Use range of equipment to measure accurately eg data-loggers, thermometers

Year 4

- Confidently use range of equipment to measure accurately eg dataloggers, thermometers

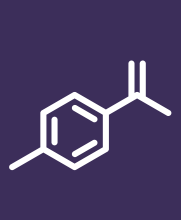
Year 5

- Take measurements using a range of scientific equipment with accuracy and precision

Year 6

- Take measurements using a range of scientific equipment with accuracy and precision, taking repeat readings where appropriate

Juniper



Gather Data

Intent (Standardised Objectives)

Sonar Curriculum

Year 1

- Begin to gather and record data simply using pictures and words

Year 2

- Gather and record data using diagrams, words and charts

Year 3

- Gather, record and present data in variety of ways eg drawings, labelled diagrams, charts
- Report on findings orally and in writing using scientific language

Year 4

- Gather, record, classify and present data in a wide variety of ways eg drawings, labelled diagrams, charts
- Report on findings orally and in writing using scientific language to answer questions

Year 5

- Record data/results of increasing complexity using diagrams, classification keys, tables, bar and line graphs
- Report and present findings from enquiries, examining causal relationships and reliability of results

Year 6

- Decide how to record data/results of increasing complexity using diagrams, classification keys, tables, scatter graphs, bar and line graphs
- Report and present findings from enquiries, examining causal relationships and reliability of results

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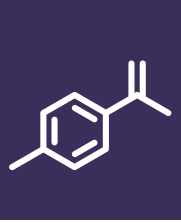

Analyse Data

Intent (Standardised Objectives)

Sonar Curriculum

Year 1

- Start to discuss what they have found out

Year 2

- Discuss what they have found out

Year 3

- Use results to draw simple conclusions and make predictions
- Identify similarities, differences, changes related to scientific processes and ideas

Year 4

- Use results to draw simple conclusions, make predictions, suggest improvements and raise further questions
- Explain similarities, differences, changes related to scientific processes and ideas

Year 5

- Use test results to make predictions to set up further tests (comparative/fair)
- Identify scientific evidence that has been used to support/refute arguments

Year 6

- Use test results to make predictions to set up further tests (comparative/fair) and explain reasoning
- Interpret scientific evidence that has been used to support/refute arguments

Juniper