PDST
Professional Development Service for Teachers | An tSeirbhís um Fhorbairt Ghairmiúil do Mhúinteoirí

Junior Certificate School Programme
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Supporting teachers and students within the Junior Certificate School Programme

Introductory text for JCSP Statements Supporting The Junior Cycle Science Statements

The statements below were developed with input from a number of practicing Science teachers in JCSP schools. They are offered as **one possible model** that teachers may use to approach the teaching, learning and assessment of the learning outcomes in the Curriculum Specification for Junior Cycle Science. They will be adjusted over time based on feedback from teachers in JCSP schools.

The Science specification may be accessed in full at www.curriculumonline.ie . In addition, professional supports for teaching Junior Cycle Science may be accessed through the Science section of the Junior Cycle for Teachers (JCT) website, at www.jct.ie/science/science

It is important to note that the statements below offer a sample approach for the creation of Junior Cycle Science statements. They have been drafted from the unifying strand, 'The Nature of Science' strand. They do not cover all of the learning outcomes which are expected to be taught in the new Junior Cycle course. It is envisaged that students would be given opportunities to experience rich learning through engaging with aspects of the Nature of Science learning outcomes in all of their classes.

Teachers are encouraged to engage with these statements as a possible approach to creating Science statements for their own students. Students' teachers are best placed to develop statements which will support their own students in their own particular class and school context.

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I can investigate in Science

Science

Statement code no. SJC1

Student: Class:

I can:

I have begun | I am working on this | I can

This has been demonstrated by my ability to:

1. Design and carry out an investigation using the scientific method
2. Understand that a scientist can investigate through experiments and research
3. Understand that a scientist should ask a question first before they commence their work
4. Make a hypothesis (a temporary scientific explanation) that can be tested
5. Recognise that testing my hypothesis involves a number of steps, through researching, conducting an experiment, calculating, analysing, evaluating reporting and concluding
6. Explain that there are different ways of testing the same hypothesis
7. Design and carry out an investigation to test my hypothesis
8. Indicate the risks involved in carrying out my investigation and describe the steps that can be taken to reduce the risks
9. Listen to the views of other group members when planning out an investigation
10. Follow the safety procedures necessary to avoid any incidents
11. Use the required equipment in a correct manner in the science laboratory

Reflecting on my learning...

One thing I did well...

One thing that I might improve...

I really enjoyed.....because...

I can collect Data

Science

Statement code no. SJC2

Student: **Class:**

I can:

I have begun ☐☐☐ | I am working on this ☐☐☐ | I can ☐☐☐

This has been demonstrated by my ability to:

1.	Understand that all science involves evidence	☐	☐ ☐
2.	Understand that I must be able to test my hypothesis	☐	☐ ☐
3.	Describe how I collected data in a reliable and accurate manner when investigating by experiment	☐	☐ ☐
4.	Create a research question from a topic I am researching	☐	☐ ☐
5.	Reference correctly the work carried out by others	☐	☐ ☐
6.	State the difference between good and bad sources of information	☐	☐ ☐
7.	Use my skills to find trustworthy information from many sources	☐	☐ ☐
8.	Use a variety of sources such as internet, newspapers, scientific journals, books, etc. to find trustworthy information	☐	☐ ☐
9.	Measure the quantity (or amount) of something and the quality (or kind) of something in my investigations and record these as data	☐	☐ ☐
10.	Record all results accurately	☐	☐ ☐
11.	Record results using different methods	☐	☐ ☐
12.	Record my data in a table	☐	☐ ☐

Reflecting on my learning...

One thing I did well...

One thing that I might improve...

I really enjoyed.....because...

I can communicate in Science

Science

Statement code no. SJC3

Student:

Class:

I can:

I have begun | I am working on this | I can

This has been demonstrated by my ability to:

1. Draw a graph from the data provided
2. Carry out calculations
3. Use the correct units in my answers
4. Organise my data and present my results in a way that is easy to understand
5. Explain what is meant by the term outlier on a graph
6. See a pattern/trend in a graph
7. Check for reliable sources of data within media
8. Present my research investigation with keywords
9. Explain my findings

Reflecting on my learning...

One thing I did well...

One thing that I might improve...

I really enjoyed.....because...

I can demonstrate knowledge and understanding

Science

Statement code no. SJC4

Student: **Class:**

I can:

I have begun ☐☐☐ | I am working on this ☐☐☐ | I can ☐☐☐

This has been demonstrated by my ability to:

1. List the strengths of an investigation ☐☐☐
2. Recognise what I need to change in order to improve my investigation ☐☐☐
3. Explain how reliable and accurate my results are ☐☐☐
4. Answer questions about my investigation ☐☐☐
5. Go over my results and make a conclusion ☐☐☐
6. Explain why unusual results such as outliers occur ☐☐☐
7. Decide if my hypothesis has/has not been supported in the investigation ☐☐☐
8. Understand the work of a scientist ☐☐☐
9. Understand that science research and scientific discovery help make the world around me better ☐☐☐
10. Form an opinion based on evidence from my research ☐☐☐
11. Give research evidence and explain how and why it is suitable ☐☐☐
12. Make a connection between the conclusions of my investigation and the world around me ☐☐☐
13. Give suitable reasons, based on evidence, to support/justify my opinion ☐☐☐

Reflecting on my learning...

One thing I did well...

One thing that I might improve...

I really enjoyed.....because...