

## **Introductory text for JCSP Statements Supporting The Junior Cycle Engineering**

The statements below were developed with input from a number of practicing Engineering teachers in JCSP schools. They are offered **as one possible model** that teachers may use to approach the new Junior Cycle Engineering Specification. They will be adjusted over time based on feedback from teachers in JCSP schools.

The new Engineering Specification may be accessed in full at [www.curriculumonline.ie](http://www.curriculumonline.ie).

In addition, support for teaching of the Junior Cycle Specification may be accessed through the Junior Cycle for Teachers (JCT) Technologies team at [www.jct.ie](http://www.jct.ie).

It is important to note that the statements below offer a sample approach for the creation of Junior Cycle Engineering statements. They do not cover all of the learning outcomes which are expected to be taught in the new junior cycle course.

August 2023

# I can research, design and manufacture in Engineering

Engineering

Statement Code: ENJC2

Student:

Class:

I can

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

**This has been demonstrated by my ability to:**

- |                                                                                                                   |                                                                            |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 1. Carry out both primary and secondary research                                                                  | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 2. Compare old and new technologies, such as a scooter and an e-scooter, and explain the differences between them | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 3. Investigate if the design and manufacture of a household item is environmentally friendly                      | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 4. Read and use a working drawing                                                                                 | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 5. Transfer measurements from a working drawing onto a piece of material                                          | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 6. Make a part using a working drawing                                                                            | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 7. Suggest an improvement to a given item e.g. game controller, mouse, headsets, gaming chair                     | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 8. Identify various mechanisms and use in a project                                                               | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 9. Bend a material accurately to a given angle                                                                    | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 10. Solder an electronic circuit using at least 3 electronic components                                           | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 11. Use coding software to program a mechatronic system                                                           | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 12. Complete a part or project to a high quality finish by filing, polishing or painting                          | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

**Reflecting on my learning...**

One thing I did well...

One thing I did to improve...

I really enjoyed...

because...