

Engineering

Jct4 Newsletter

Junior Cycle for Teachers

Junior Cycle for Teachers exists to **inspire, support** and **empower** teachers in the transformation of Junior Cycle education in Ireland.



3D Printing in the Classroom Electives

The Jct4 Engineering team were delighted to collaborate with I-Form, Advanced Manufacturing Research Centre and 3DWIT to support teachers with four rounds of '3D Printing in the Classroom' elective workshops.

3D Printing in the Classroom - Creativity and Design



The feedback from teachers was very positive and a second round of advanced 3D Printing workshops will be offered to teachers during the 2021/2022 academic year.

Interview with Dominic Dolan - Silversmith

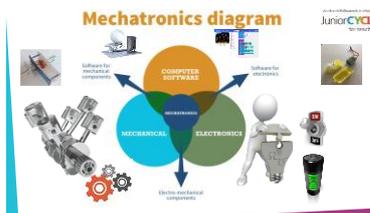
In collaboration with Arts in Junior Cycle, we interviewed Silversmith Dominic Dolan where he gave his insights into craftwork and the be-spoke detail of his trade. Follow us on twitter [@Jct4ed](https://twitter.com/Jct4ed) to make sure you don't miss out on this fantastic and insightful conversation.

Welcome

On behalf of the Engineering team, we would like to welcome you to the 8th edition of the Jct4 Engineering Newsletter, 'Summer Edition 2021', thank all Engineering teachers who attended our online CPD cluster workshops from January to March this year and further acknowledge the commitment of teachers who joined us for our [electives and webinars](#) in recent times. We wish to highlight the insightful feedback that was offered by teachers during our online CPD cluster workshops as this will inform our structure and design of our CPD for 2021/2022. We want to remind all teachers that our dedicated Engineering advisors can be contacted from the [Meet the Team](#) tab on jct.ie should you have any queries or require further assistance in relation to our recent events.

Our Online Engineering CPD Cluster Day

The 2020/2021 Junior Cycle Engineering online CPD cluster workshops were held through Zoom this year. To support teachers with embedding Mechatronics in the classroom, each registered teacher received a



Mechatronics' Teaching and Learning Resource, an instructional manual with a [circuit and wiring diagram](#) for assembling the components prior to the event and a [learning log](#) to support engagement during those workshops. Teacher feedback from our online CPD cluster workshops was very

positive, with specific reference to planning for student engagement in computer software, while using the learning outcomes. A link to the full presentation from the day can be found [here](#).

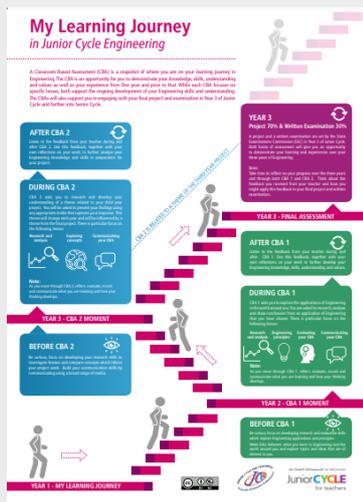
Micro:bit Classroom Resource

During our Engineering online CPD cluster workshops, we engaged with computer software through micro:bit to help teachers embed the learning outcome - 3.6 '[configure and program](#) basic mechatronic systems using appropriate software' in their engineering rooms. To support teachers who may be engaging with students learning from home, face to face or a blended experience, the micro:bit classroom self-directed resource, available [here](#), may help with exploring and developing skills necessary to engage with micro:bit. Further to that, you may wish to set up a virtual classroom where you can support and monitor students remotely or in a classroom environment. To do this, visit [micro:bit classroom](#) to create this learning environment for your students and follow this [video](#) developed by the Jct4 Engineering team should you need further guidance.



Student Learning Journey

The Jct4 team has developed a series of posters for each of the suite of Technology subjects. This resource sets out key learning and assessment moments undertaken by students in Junior Cycle Engineering.



Written in student-friendly language, this resource will support students in understanding their learning journey throughout first, second and third year. This resource is found under Teaching and Learning, Classroom Supports in the Resources section of our website, click [here](#).

Further resources can also be found in the Assessment section of our website, click [here](#).

Communication



[@Jct4ed](#)

An tSraith Shóisearach do Mhúinteoirí
JuniorCYCLE
for teachers

www.jct.ie



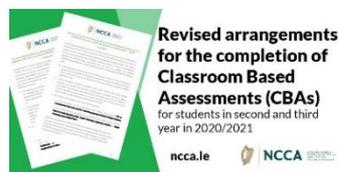
Mailing List

Webinar and Elective Support

There are a series of webinar and elective supports available in the Technologies' section on www.jct.ie. Previously we looked at a webinar 'Engineering in Action' to assist teachers in preparing students for Classroom-Based Assessment 1 and an elective 'Supporting Mechatronics in Engineering' to help develop skills and understanding within Strand 3 of the specification. Our latest elective on 'Classroom Practice and Computer Software in Engineering' offers many insights into engaging with new approaches. This [handout](#) supports the embedding of Mechatronics within 1st and 2nd year Engineering while planning across all three Strands of the specification. We would like to thank our associates for the time and assistance they gave the Jct4 Engineering team during the preparation of these added supports. All webinars, electives and support documents can be found [here](#).

Revised Arrangements for Classroom-Based Assessments

The NCCA have issued 'Revised arrangements for the completion of Classroom-Based Assessments for students in second year in 2020/2021'. A link to the document can be found [here](#). Whilst these arrangements for CBAs are a response to a specific challenge, they also aim to encourage school autonomy; acknowledge teaching and learning decisions made at school level during school closures, and ensure, as far as possible, that CBAs are completed by students in 2020/2021.



link to the document can be found [here](#). Whilst these arrangements for CBAs are a response to a specific challenge, they also aim to encourage school autonomy; acknowledge teaching and learning decisions made at school level during school closures, and ensure, as far as possible, that CBAs are completed by students in 2020/2021.

Engineering in the world around us

To develop the 'Engineering Mindset' and engage students in the world of Engineering around them, we are constantly looking out for various articles, videos and support materials to ignite the minds of students. The links below may provide a lead into some interesting activities around the following learning outcomes:

3.4 explore the application of systems in an engineering setting such as the classroom, home and industry.

3.5 investigate the impact of mechatronics on the environment and society.
https://www.youtube.com/watch?v=lbs1KGgma_o

1.6 engage with the various engineering disciplines by relating them to everyday application.

1.10 demonstrate high-quality work, to include accuracy and surface finish.
<https://www.youtube.com/watch?v=tekta1ix5lc>

News and Events

Continue to encourage your colleagues to sign up to Jct4 Engineering via the mailing list opposite. Watch our [news and events](#) tab within the Technologies' section of jct.ie and follow us on our Twitter page [@Jct4ed](#). Please feel free to contact any member of the team with your queries via email. The email addresses can be found in the [Meet the Team](#) tab on the jct.ie homepage. We hope teachers and students have a very enjoyable summer break.



Kind regards,
The Jct4 Engineering Team