

Engineering Newsletter



An tSraith Shóisearach do Mhúinteoirí

JuniorCYCLE
for teachers

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

Summer 2023 - Issue 14

Junior Cycle Examination 2022 information note

The State Examinations Commission provided an information note that gave some insight into areas of good practice, and advice for engaging with the written examination and coursework. The four technologies subjects are referenced in the document with information relating to Engineering available on page 35. The information note can be found by clicking [here](#).



[Register Here](#)

..... in the News!

3D-printed hearts could herald a new way to treat patients. Engineers at Massachusetts Institute of Technology (MIT) have devised a way to 3D print a replica of the human heart that could have a significant impact on tailored treatments for people with heart issues.

According to the MIT engineers behind this 3D heart replica discovery, doctors could use their new procedure to print a patient's heart and aorta, before implanting a variety of valves into the printed model to see which design results in the best function and fit for that particular patient.

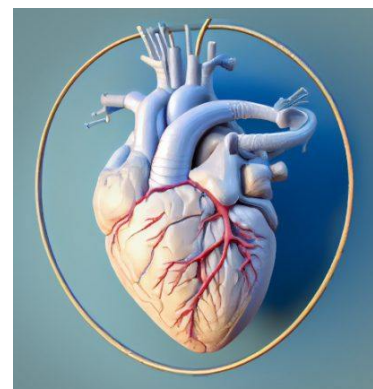
"There are massive variations, especially when patients are sick. The advantage of our system is that we can recreate not just the form of a patient's heart, but also its function in both physiology and disease."

For more information please follow this link:

<https://www.siliconrepublic.com/innovation/3d-hearts-mit-printed-replicas>

Some potential learning outcomes that relate to this process:

- 1.5 research applications of existing and emerging technological developments
- 1.8 identify appropriate tools and equipment specific to a task
- 2.5 apply appropriate engineering concepts and approaches in the execution of their design solutions
- 2.7 apply their knowledge of the properties associated with a range of engineering materials,
- 3.11 justify their choice of the most appropriate system or systems for a specified purpose



The National Council for Curriculum and Assessment (NCCA) has published the theme for Classroom-Based Assessment (CBA) 2 – Research and development, which is to be completed by third-year Engineering students in the 2023/2024 academic year. It is available on www.curriculumonline.ie.

The theme for CBA 2 is titled 'Steering Systems', and it can be found [here](#).

CBA 2 theme

CBA2: Click here for the 2023/24 theme

[View theme details](#)

Useful resources

As part of the JCT Festival of Professional Learning Event which took place at Easter, we developed a resource that shows how to cut raster and vector depth gauges for a laser cutter.

This resource was made available to teachers on the night of the event and can be accessed by clicking [here](#).



The JCT Engineering team would like to sincerely thank all our Associates, co-operating teachers, students, and school leaders who contributed to the design and delivery on our comprehensive programme of CPD support for teachers of Engineering during the 2022/2023 school year. The input of practicing teachers is an integral part of our CPD design and delivery process and is one we as a team value greatly. We look forward to developing these relationships further as we move into 2023/2024.

Thank you!

Oide Tacú leis an bhFoghlaim Ghairmiúil i measc Coarmaírf Scoile agus Múinteoirí Supporting the Professional Learning of School Leaders and Teachers info@oide.ie @oide_ireland

'Our vision is to support the professional learning of school leaders and teachers in Ireland through the development of high quality, innovative and responsive professional learning that enables them to meet the educational needs of all learners in a changing world'

OIDE

On the 1st of September 2023, a newly integrated support service named Oide will be established. Currently, there are four individual teacher education support services that provide a wide range of ongoing supports to primary, post-primary and special schools, including professional learning events for school leaders and teachers. These are the: Centre for School Leadership (CSL), Junior Cycle for Teachers (JCT), National Induction Programme for Teachers (NIPT), Professional Development Service for Teachers (PDST).

You can access the Oide website [here](#) and/or follow Oide on [twitter](#).

Keep in Touch!

To keep up to date with Jct4 Engineering, please join our mailing list and follow us on Twitter @Jct4ed.



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