

The Official Newsletter of Junior Cycle for Teachers

Issue 30 | December 2022





Welcome to the 30th edition of our newsletter, JC Today. The theme for this festive edition is **Digital Learning**. Over the next few pages, you will have a chance to delve into some of the supports that various JCT Teams have created and used in both elective and core CPD to promote digital learning in the Junior Cycle classroom.



There is no doubt that digital learning has become a key component of our education system and daily lives. This is even more evident in light of the last few years. As an organisation, Junior Cycle for Teachers has always sought to promote effective CPD delivery through the Cluster model using Zoom Technology and in a face-to-face setting. This has built upon a strong culture of CPD delivery that seeks to inspire, support and empower teachers in engaging with Junior Cycle reform. In addition to this, the recently published Digital Strategy for Schools to 2027 highlights the effective use of digital technology, integrated as a seamless part of the teaching, learning and assessment practice in every classroom, as a key goal.

In our work with teachers, we strive to accentuate the opportunities to use digital technology in creating effective learning experiences for our students. I hope you will find the various articles in this edition to be useful, informative and practical for your subject area.

Finally, Junior Cycle for Teachers would like to take this opportunity to wish everyone a very peaceful and happy Christmas break.

We are extremely proud to work with you all and look forward to an even brighter 2023.

Liam Bannon, Editor

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Digital Learning in Junior Cycle





Click on the image to download



"Key skills help learners develop the knowledge, skills and attitudes to face the many challenges in today's world. They also support students in learning how to learn and to take responsibility for their own learning."

The Framework for Junior Cycle (2015)

English



As a fundamental element of the eight Key Skills of Junior Cycle, the Digital Learning Framework for Post Primary Schools and the recent Looking at Our School (LAOS), 2022, the use of digital technology has become a cornerstone of the Junior Cycle English classroom. The Junior Cycle English Team endeavours to be both innovative and supportive of teachers in the incorporation of digital technologies in classrooms to enhance teaching and learning.

For the last two years, English Cluster Day supports have been housed on a Google Site. This allows for perpetual access to resources offered and it has the added benefit of offering interactive elements to be included. For example, one of the most user-friendly aspects of the Google Site is the variety of resources that can be housed there.



In the CPD offered in 2022-2023 the full libretto of *Hamilton* could be embedded, along with cast recordings, a "Getting Started with Guide", activities, a timeline of Hamilton's life and context and YouTube clips of "Backstage at *Hamilton* on Broadway". This was only one support – others included Teacher Testimony audio clips, colour charts, graphic organisers and much more.

A multitude of digital tools are utilised by the Junior Cycle English Team, and are included in the **Cluster Workshops 2022**, including Word Hippo, VisuWords, Etymology Online and others. These can help develop students' engagement with vocabulary. Likewise, in the film workshops, the free applications, *OpenShot* and *InShot* are explored as options for creating short films. Teacher feedback was gathered on Google Slides and Padlet, both of which are intuitive and easily navigated. Padlet has been particularly popular as the comments left by teachers can remain and are progressively built on over time. This allows for teacher to teacher sharing of ideas across geographical locations and time, regardless of the date of CPD.





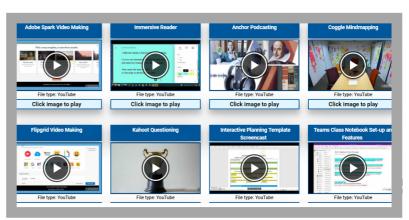
English



English

Another digital technology that has proven to be both accessible and enjoyable in the English classroom is Podcasting. Podcasts allow teachers to incorporate a wide variety of interviews and discussions with film creators, directors, writers and playwrights into units of learning. The *Spinning Stories Out of Light* podcast series is one example of this. The Junior Cycle Talks Podcast and Arts in Junior Cycle Podcast series have proven to be popular and insightful for instilling creativity in Junior Cycle English students.









Finally, the English Team has designed and shared several Digital Supports in the **General Resources** section of the JCT English website. These include guides on Adobe Spark Video Making, Coddle Mindmapping, Flipgrid Video Making, Anchor Podcasting, Genial.ly, and ThingLink for Education among others. Effective feedback is an important strand of teaching and learning, and with accessibility in mind a guide is provided for Using Mote for Oral Feedback.

It is an exciting time to be involved in the changing nature of teaching and learning in Irish classrooms, and the use of digital technology is at the forefront of this change. The Junior Cycle English Team look forward to continuing to incorporate new and innovative technologies in our delivery of CPD and supporting teachers to embed useful and effective digital tools in their practice.

Gaeilge



Ó pháipéar agus peann go táibléid le scáileán tadhaill, tá réabhlóid tar éis tarlú i saol an oideachais. D'athraigh an fhoghlaim dhigiteach an tírdhreach oideachasúil go deo agus mar gheall air sin, tá athruithe ollmhóra tagtha ar chleachtais mar a thugtar faoi phleanáil, faoi theagasc, faoi fhoghlaim agus faoi mheasúnú. Anois, níl an teagasc ná an fhoghlaim teoranta ná teanntaithe do cheithre bhalla an tseomra ranga. Le teacht na cianfoghlama ar an bhfód, tá saoirse agus solúbthacht san oideachas agus rochtain ag foghlaimeoirí air níos mó ná riamh.

Is léir go bhfuil an fhoghlaim dhigiteach fite fuaite leis an teicneolaíocht agus is as an dlúthchaidreamh seo a eascraíonn réimse leathan scileanna gur féidir leis an bhfoghlaimeoir leas a bhaint astu. Cuireann an fhoghlaim dhigiteach le scileanna eagarthóireachta, ceapadóireachta, cruthaitheacha, scríbhneoireachta, cumarsáide agus comhoibrithe an fhoghlaimeora ach ní liosta le háireamh é.

Anuas air sin, tagraíonn an Chreat don tSraith Shóisearach 2015 go géar gléineach don áit lárnach atá ag an bhfoghlaim seo in eispéireas an fhoghlaimeora agus an mhúinteora sa lá atá inniu ann. Tá sí leabaithe i seacht as ocht de na príomhscileanna.



Tá méadú as cuimse tar éis tagtha ar na deiseanna foghlama atá ar fáil tríd an bhfoghlaim dhigiteach agus mar gheall air sin, caithfidh múinteoirí a bheith ina saineolaithe ar conas pleanáil agus intinní foghlama, critéir ratha agus aiseolas a chumadh chun an fhoghlaim is éifeachtaí a léiriú i gcomhthéacs an tseomra ranga. Clúdaíodh na hábhair seo go cuimsitheach i gceardlanna Forbairt Ghairmiúil Leanúnach SSM thar na blianta.

An bua is mó a bhaineann leis an bhfoghlaim dhigiteach ná go bhfuil an inniúlacht ag foghlaimeoirí triail a bhaint as rud éigin ar nós aiste a chumadh nó cur i láthair a dhearadh, athruithe a chur i bhfeidhm, nó cur leis, agus ansin, tar éis féinmheasúnú nó machnamh a dhéanamh air, cuid nó codanna de a leasú agus tús nua a chur leis. Sa chaoi seo, foghlaimíonn siad i mbealach praiticiúil agus, níos suntasaí fós, foghlaimíonn siad óna mbotúin nó na hearráidí a rinneadh sa chéad dhréacht.

Gaeilge



Tugann an fhoghlaim dhigiteach an deis don scoláire beocht a bhlaiseadh san fhoghlaim. Is trí úsáid a bhaint as feidhmchláir ar nós Google Street View agus suíomhanna ar nós **www.abair.ie** gur féidir leo dul i ngleic le hábhar i mbealach praiticiúil agus, thar aon rud eile, réadúil. Eispéireas níos mó ná foghlaim atá i gceist mar téann sé go smior ins an foghlaimeoir. Faigheann siad eolas, tuiscint agus léargais níos doimhne uathu agus foghlaimíonn siad scileanna nach bhfoghlaimeoidís murach iad.

Cuirtear an méid sin béime ar an bhfoghlaim dhigiteach sa tSraith Shóisearach ionas go mbeidh ar chumas na scoláirí déileáil leis an saol mar atá, agus, b'fhéidir níos tábhachtaí fós, ná leis an saol mar a bheidh in ionad a bheith ullmhaithe do scrúdú amháin ag deireadh na sraithe sóisearaí. Tacaíonn sí le scoláirí a bheith liteartha i slí úrnua ach atá ag teastáil go géar ionas go mbeidh siad ullamh don chéad chéim eile ina n-aistear foghlama agus do phostanna, do shuimeanna agus do dheiseanna nach maireann fós. Tá deiseanna ag an aos óg nach raibh ag aon ghlúin roimhe dul chun cinn oideachasúil a dhéanamh agus tugadh deis dóibh dul i muinín na foghlama ar shlí a bhí doshamhlaithe sna laethanta atá thart mar gheall air seo.



SPHE



Extensive resources are available to support learning and teaching in Junior Cycle (JC) SPHE/RSE.

Drawing on various resources can help meet the needs of a diverse range of students. There is no limit to the range of video clips teachers can use in JC SPHE/RSE classrooms.

The **Dove Self-Esteem Project** includes several short video clips that could stimulate conversations about body image and self-esteem.

The HSE Sexual Health Crisis Pregnancy Programme (SHCPP) <u>Making the 'Big Talk'</u> <u>many small talks video series</u> includes several short animated video clips that could stimulate discussions about relationships and sexuality.

Similarly, several short video clips have been developed to explain the concept of sexual consent, such as **tea and consent**, which teachers could incorporate into a series of lessons on this concept.







BeLonG To Youth Services has created several short video clips to support learning and teaching about LGBTI+ matters in the SPHE/RSE classroom.

Additionally, clips of advertisements, songs, or TV programmes that students are familiar with can provide a stimulus for opening a range of discussions in SPHE/RSE classrooms.



Maths



The JCT Maths team promotes the use of digital technologies, highlighting useful platforms and software to engage and inspire students and to support a deeper understanding of mathematics. We have selected some digital highlights from our subject CPD days, elective online workshops, webinars, and resources to show the potential of digital learning technologies to support teaching and learning in Mathematics.

CODAP is a free open-source educational software for data analysis. It can be used by teachers and students in the classroom and at home. Students can use data they have gathered themselves or sourced online such as from CSO and Census at School.

Our website features **a webinar recording** on using CODAP as a tool for teaching and learning mathematics.

The webinar focused on two areas of support:

- 1. Exploring the use of datasets on CODAP, both sourced and collected
- 2. Exploring some of the functions available on CODAP

Short videos on using CODAP in the classroom are also available on our website.

Desmos is dynamic mathematics software that brings together a free suite of Maths software tools, including a Graphing Calculator and Geometry Tool. The technology powers activities which can open up a world of possibilities for students to explore concepts more deeply, collaborate with their peers on problem-solving, and apply knowledge creatively as mathematicians. Teachers can select from pre-designed activities, modify these activities to suit their context or custom make their own activities. This flexibility allows teachers to tailor their instruction to provide both access and challenge for all their students.

The JCT Maths team has hosted two webinars to support teachers with this digital learning technology. The recordings of these webinars <u>Delving into Desmos</u> <u>featuring Dan Meyer</u> and <u>Using Desmos to Deepen Student Learning</u> can be found in the elective section of our website.



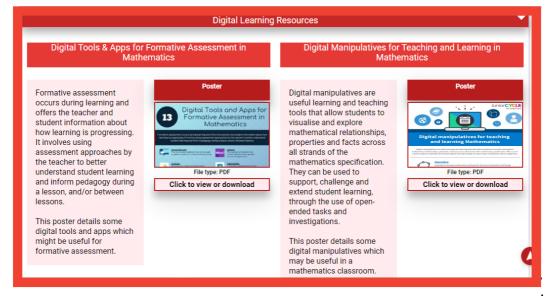
Maths



GeoGebra is dynamic mathematics software that brings together geometry, algebra, spreadsheets, graphing, statistics and calculus in one easy-to-use package. GeoGebra is free to use. Students can explore concepts under the guidance of their teacher or engage individually or collaboratively with the activities available on the site. GeoGebra is a powerful tool to support deepening students' understanding of mathematical concepts through visualisations and digital manipulatives.

The JCT Maths team have also created videos for teachers using GeoGebra in the Junior Cycle Mathematics Classroom on <u>introducing GeoGebra</u>, <u>searching for classroom resources</u> and <u>creating a class</u>. We have recommended resources for GeoGebra available on **our website**.

Finally, we have collated digital learning technology resources into two posters to support teachers to make use of digital tools for formative assessment and digital manipulatives in their classrooms. **The use of digital tools in formative assessment** creates an interactive learning environment. Teachers are empowered to expand formative assessment and encourage students to develop as independent learners. The use of **digital manipulatives** can provide affordable concrete materials for the classroom. Visual manipulatives can play a role in developing and deepening the understanding of mathematical concepts.







Digital Tools and Apps for Formative Assessment in Mathematics

Formative assessment occurs during learning and offers the teacher and student information about how learning is progressing. It involves using assessment approaches by the teacher to better understand student learning and inform pedagogy during a lesson, and/or between lessons.



AnswerGarden

This minimalistic feedback tool can be used to gather answers or creative brainstorming.



Kahoot

The teacher and student can create multiple choice quizzes for use during lessons.



Animoto

Students can create and share thirty second videos on their learning.



Mentimeter

A formative assessment tool that allows for instant feedback from students.



Coggle

A collaborative mind mapping tool that allows students to individually or collaboratively brainstorm.



NearPad

Teachers can create differentiated lessons based on evidence of student learning.



ConceptBoard

An online visual whiteboard that allows for collaborative engagement on projects.



Plickers

Collect real time answers from students without needing any devices.



EdPuzzle

Create interactive online videos by embedding questions, audio notes, audio tracks, or comments on a video.



Padlet

Students and teachers can share their ideas, brainstorm collaboratively and comment on the responses of others.



FlipGrid

An online tool that allows students to create, record and share recordings.



Poll Everywhere

A formative assessment tool that allows for instant feedback from students.



Google Forms

An online tool that teachers can use to formatively assess students through inclass quizzes or online homework assignments.

Further resources available at www.jct.ie/maths

An tSraith Shóisearach do Mhúinteoir



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Digital manipulatives for teaching and learning Mathematics

Digital manipulatives are useful learning and teaching tools that allow students to visualise and explore mathematical relationships, properties and facts across all strands of the mathematics specification. They can be used to support, challenge and extend student learning through the use of open-ended tasks and investigations.



Geogebra

GeoGebra is dynamic mathematics software for all levels of education that brings together geometry, algebra, spreadsheets, graphing, and statistics. GeoGebra is available on multiple platforms, with apps for desktops, tablets and a web browser.



Desmos

Desmos is a free suite of mathematics software tools that include in-class calculators, graphing software and digital mathematics activities.



CODAP

CODAP is a versatile programme that allows users to create and/or import data sets and investigate relationships with ease. CODAP provides some sample sets to get started and introduces users to the type of investigations that are possible.



Tinkercad

Tinkercad is a free online computer-aided design (CAD) program within which users can design, modify, and manipulate 2D and 3D objects.



Autograph

Autograph can be used to draw, analyse, manipulate and transform graphs and functions. Graphs and objects (2D and 3D) can be animated and statistics and probability can be explored also.



Scratch

Scratch can provide students with opportunities to think creatively, reason systematically, and work collaboratively. Some pupils have explored Scratch in primary school to program their own interactive stories, games, and animations.

Modern Foreign Languages



Whether it is through the Junior Cycle Framework 2015, the Modern Foreign Languages Specification or Online CPD, Digital learning has and continues to play a key role in Modern Foreign Languages. Within the 'Resources section' of our website, we have "Digital Tools in the MFL Classroom - Tutorials". The individual resources offer step-by-step approaches to using various digital tools to support students to develop their skills, apply their understanding and extend their knowledge in the Modern Foreign Languages classroom.

As additional support, we collaborated with PPLI and PDST to create **Digi Tech for Languages**.

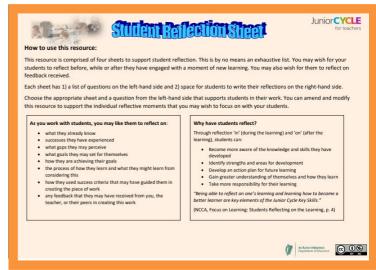


Click on the image above to access support

This tool is inspired by and rooted in the Digital Learning Framework and supports teachers to identify areas for development with regard to embedding digital technologies and digital tools in their teaching methodologies.

To support teachers with their efforts regarding encouraging reflective practice in the Modern Foreign Languages classroom, we created an interactive student reflection sheet.

This resource which continues to be well received by participants throughout the country, provides clarity to teachers with regards to engaging in the cyclical process of reflection. It gives teachers the opportunity to see how they can adapt this resource to suit their own classroom scenario.



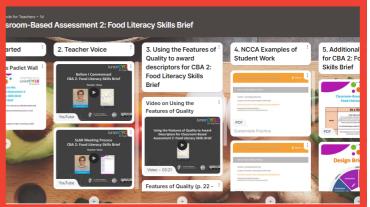
Home Economics



The JCT Home Economics team continue to design, develop, and deliver professional learning opportunities for teachers which showcase several digital technologies. These include **Edpuzzle**, **Kahoot!**, **Mentimeter**, **Padlet**, **Socrative** and **Wizer.me**.

Two popular Padlet Walls that you may like to revisit are our **CBA 1 Creative Textiles** and **CBA 2 Food Literacy Skills Brief Padlet Walls**.





You may also like to revisit our short video clips in which our Associates, Clodagh and Marie, share their experiences of using **Edpuzzle** and **Wizer.me** before exploring these digital learning technologies for yourself.





Music

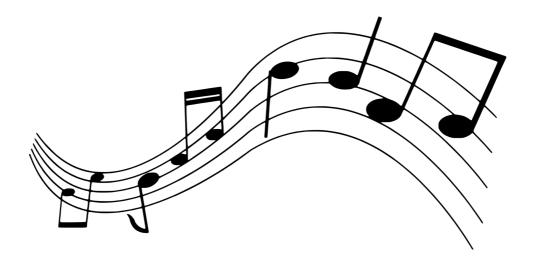


Digital Learning Technologies (DLT) have informed all of the work of the JCT Music team from our Digital Learning Technology elective workshops, to using Digital Learning Technologies as a tool during our CPD cluster days, to creating supports for teachers to engage with DLT in their own classroom practice. For a snapshot, click on the image below. to play a short video.



Click on the image to play video





DIGITAL LEARNING IN JUNIOR CYCLE HISTORY

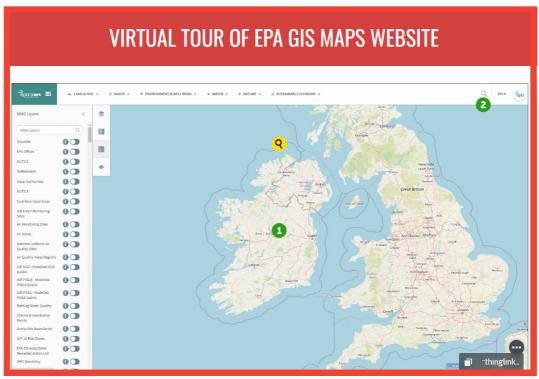


Geography



Digital learning technologies can provide tools to support active and collaborative learning and have the potential to give students access to a wide range of geographical information that enhances their geographical learning. Digital learning can allow students to look at geographical events in real-time bringing geography to life in the classroom.

As geographers mapping is a vital skill in developing student understanding as well as encouraging our students to become geoliterate. **EPA GIS Maps** can be used to help students to examine their local area under numerous different themes such as soil type, water quality and pollution. We focused on land use in a recent elective where we used **EPA GIS Maps** to investigate how land use has changed in a local area. Using the **EPA GIS Map website**, students search for their local settlement and starting at 1990, they can examine changing land use over time in their chosen settlement. It supports students' understanding of the causes and effects of urban change in an Irish town or city **LO 3.4.** Students could also make connections between past and present settlement **LO 3.5.** For support on how to use EPA GIS Maps click on the image to follow the virtual tour of EPA GIS Maps website.



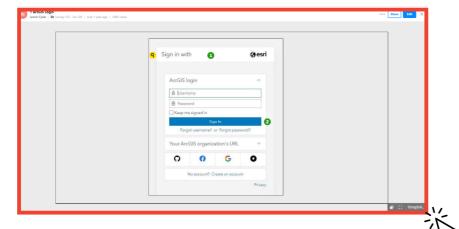


Click on the image above to access support

Geography



An online survey tool such as **ArcGIS Survey 123** allows students to create, share and analyse surveys. Data can be collected in the field and results can be analysed on a map in the classroom.



This online tool could be used to help geography students investigate their local area. Students could survey a school population, local residents and businesses on a wide variety of topics such as population change, economic activities, river, and coastal processes.

Surveys can contain text, audio, or images and results are immediately available. Unlike other online survey tools, ArcGIS Survey 123 allows questions to be added to surveys that ask students to take a photo. The question will automatically open the camera on their phone and then gather all the photographs together. This could be useful for example when undertaking a river field study. When investigating river processes, students can input their results on river width, depth and speed and mark their location on a map into a pre-prepared survey using their devices in the field. This allows students to analyse their results and explain how river processes shape our landscape (LO 1.5), and how humans interact with and manage river processes (LO 2.7). Follow the virtual tour on how to use ArcGIS Survey123 within the classroom.

Finally, students could use the **CSO website** to examine census data both locally and nationally. Students could examine the latest census data under different themes such as housing, migration, commuting, industry, and migration. Students could have conversations and make connections between migration and population change in their local area **(LO 3.2).** Students will begin to think like geographers by recognising interconnections between population and the development of settlements **(LO 3.5).** We have created a **virtual tour** of the CSO website to show how to use this website to investigate data from a local area.

All these digital tools can support students when undertaking research, for example in CBA2, 'My Geography', and are available on the **JCT website in the Geography section**.

Religious Education



RE

During the Covid 19 pandemic, digital learning played a central role in supporting the continuity of learning, teaching, and assessment. During this time many of us used digital learning technologies in a variety of ways to ensure our students' learning experiences were inclusive, innovative and enjoyable.

In our current 2022-23 CPD workshop, we explore how the Religious Education classroom can be a safe space for dialogue, discussion, and debate. Modelling the dialogical classroom throughout the day, we explore how digital learning technologies can be used to encourage participation by ensuring the silent, passive, and active voices in our classrooms are included and listened to.

We discuss the different voices that can be present in our classes, and how we might include and activate the voice of students who may be introverted, or uncomfortable speaking in front of their peers, through the use of a number of strategies such as Photovoice, Digital Scrapbooking or interactive apps such as Mentimeter, Padlet or Jamboard.







Religious Education







The participatory method of Photovoice which helps to activate student voice has been a rich source of discussion during our CPD workshops. Photovoice involves giving students the opportunity to take photographs and discuss them collectively with their peers. This helps students to explore different perspectives on the topic being researched and studied. The use of photographs helps to give voice to each student's learning while having the potential to promote respectful dialogue and active listening when shared in small groups. Through their chosen photographs on the topic they have researched, students can decide how to represent their learning which can provide a meaningful basis for discussion.

Some other benefits of Photovoice include:

- being accessible
- developing active participation
- being student-led
- providing for meaningful engagement
- making connections to the experiences of our students
- providing a springboard into further discussion.

This digital learning strategy can support the inclusion of all voices in the RE classroom, particularly the silent and passive voice in allowing for meaningful and active participation.

Science



Digital technology plays an important role in supporting student learning.

"Students take responsibility for their own learning and use the learning resources, including digital technologies, provided to them and sourced by themselves, to develop their skills, apply their understanding and extend their knowledge."

(Looking at Our School 2022, p. 29)

Key Skills support students to face the many challenges in today's world. Within the Framework for Junior Cycle (2015), working with digital technology forms part of each of the Key Skills. The JCT Science team has, over the last number of years, designed and shared several digital resources that could be used as part of a science learning experience. Included is a brief description and a link to some of these resources. For a complete list of available digital resources, **visit our website**.

Digital Forms

Digital Forms can be a useful assessment tool to support learning and to provide feedback. They illustrate some ideas for Junior Cycle Science while demonstrating the functionality of both Microsoft and Google Forms.

Microsoft Forms - Click on each link below to access support.

- <u>Sample questions that support</u> <u>learning and self-assessment</u>
- <u>Sample questions to illustrate</u> <u>branching</u>

Using Microsoft Forms to Support Learning and Self-Assessment

This is a Microsoft Forms quiz that demonstrates the use of videos within a Form as well as assessing for understanding and auto-correction. To experience the functionality, begin by inputting incorrect responses to all four questions. On the screen, after inputting all responses, select the VIEW RESULTS option where you will see if your responses were correct or incorrect. Afterwards, you might wish to retake the quiz, this time inputting correct responses, and view the results to see your responses are now noted as correct. Please note, while this form shows how auto-correction works on the Multiple Choice questions, longer answers do not receive an automatic grade but do need to be considered by the teacher. Please note, your data is not being recorded by completing this quiz.

Google Forms - Click on each link below to access support.

- Sample questions that support learning and self-assessment
- <u>Sample questions to illustrate effective use of question styles using</u>
 <u>Microsoft Forms</u>

Science



Other Digital Resources

ThingLink might be used as a digital resource to support student learning. Thinglink is one platform that allows resources to be shared easily. It may support an interactive learning experience that is both visually stimulating and engaging. The JCT Science team have used Thinglink in all of our online CPD days so far.





Click to access <u>a guide to getting started with ThingLink</u> and a further resource for <u>building a digital learning experience</u> using Thinglink.

<u>Padlet</u> is another digital canvas that supports sharing and collaboration on projects. One example that we have created and shared recently highlights additional supporting documents <u>for students engaging with Level 2 Learning Programmes</u>.





A guide to creating a Google Site, illustrates how creating a website can be used to support learning. Google sites may be used to share your students' work with the school community, to create a portal for your class, as well as creating and curating online resources.





Finally, we have introduced a digital assessment into this year's online cluster: **Hexagonal Thinking for Students**. Hexagonal thinking is a creative mode for discussion that allows learners to think about concepts and connections in a different way. This is a great way to support student collaboration, as students discuss and justify their decisions, learning from each other.

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Technologies

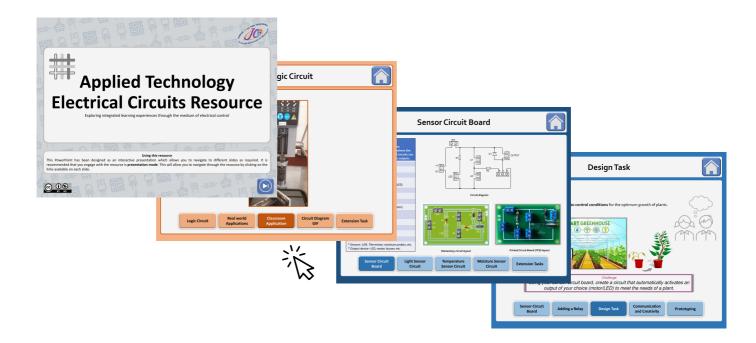


Applied Technology

Using PowerPoint as a tool for interactive teaching and learning

As part of the design of their core CPD 2022/2023, the Applied Technology team designed and developed an interactive PowerPoint resource for teachers and students to engage with electrical control. Entitled: *Applied Technology Electrical Circuits Resource*, this support uses the features of PowerPoint to make the learning experience more immersive for both teachers and students. Instead of using PowerPoint in a linear fashion where a presentation starts with the first slide and then moves onto the next slide, this PowerPoint uses embedded links to allow the learner to navigate to different parts of the presentation at any time.

Additional features such as the use of animations allowed users to transition between slides in a more interactive way. To reduce the file size of the resource, videos that were created by the team were uploaded to YouTube with only the links embedded in the PowerPoint presentation. GIF files were also used as an alternative method to keep the size of video files to a minimum. As a resource, teachers can add their own work to the presentation to meet the needs of students in their contexts. For further information, download the <u>Applied</u> <u>Technology Electrical Circuits Resource</u> and consider how your team could use PowerPoint as a tool for more interactive teaching and learning.



Technologies



Graphics

In Graphics, students are continuously encouraged to use a variety of media to demonstrate their knowledge and understanding. Teachers often use digital technologies as a teaching and learning tool to aid visualisation of an abstract concept or object and to make it more concrete for students. In addition to having a physical model of an object, digital learning tools such as *Onshape* are often used to model a 3D solid to help students understand the geometry of an object.

The classroom experience in **this video** shows a student using digital technologies to demonstrate their understanding of the sections of a cone. This is something that would be difficult to demonstrate verbally or on paper alone. The teacher is encouraging an integrated approach where the student begins in the 3D world, learning digitally along with creating a physical model and finally demonstrating an understanding in 2D while solving a specific question.

To support teachers and students using *Onshape* as a digital learning tool, the Graphics team has developed an *Onshape* self-directed resource. This resource has an **instruction guide** and an accompanying **learning log**. The resource is available in both Microsoft and Google forms for teachers to use with their class. It can be used in its current format but is also available for teachers to save their own copy which allows them to edit for their own school and class context.

The Graphics team have also developed a **self-directed resource** to aid exploration and development of skills within the **Tinkercad** software.







Junior Cycle Talks



Our podcast channel 'Junior Cycle Talks' continues to go from strength to strength. You will find a whole host of episodes across different subjects and interests by searching for Junior Cycle Talks.

Recent episodes include...



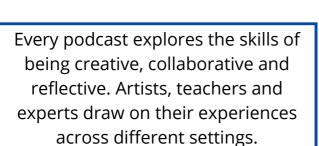
JCT English
Drama & Performance Series
In conversation with
the National Library of Ireland

Seamus Heaney
The Burial at Thebes

JCT English & Arts in Junior Cycle - author, Peadar Ó'Guilín

JCT English - National Library of Ireland

From the archives...





Arts in Junior Cycle - RTÉ Concert Orchestra

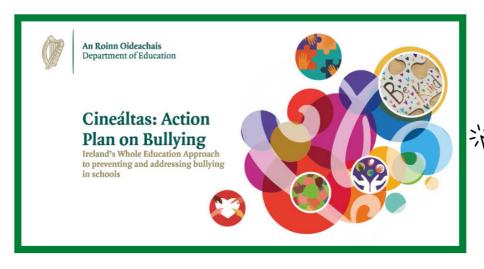
Search Junior Cycle Talks wherever you get your podcasts!





Further Supports





The Minister for Education
Norma Foley TD recently
announced the publication
of Cineáltas: Action Plan
on Bullying.

Full details of the Minister's announcement are available by clicking on the image.



Check out our website for all the latest updates to support your Junior Cycle classroom.

Access the JCT website and mailing lists by clicking below.

CLICK HERE









Good Hours





I had for my winter evening walk— No one at all with whom to talk, But I had the cottages in a row Up to their shining eyes in snow.

And I thought I had the folk within:
I had the sound of a violin;
I had a glimpse through curtain laces
Of youthful forms and youthful faces.

I had such company outward bound.

I went till there were no cottages found.

I turned and repented, but coming back

I saw no window but that was black.

Over the snow my creaking feet
Disturbed the slumbering village street
Like profanation, by your leave,
At ten o'clock of a winter eve.

Robert Frost



An tSraith Shóisearach do Mhúinteoirí

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