An tSraith Shóisearach do Mhúinteoirí

Junior CYCLE for teachers

JUNIOR CYCLE FOR TEACHERS

An tSraith Shóisearach do Mhúinteoirí

Graphics

Online CPD

Cluster Day

2020/2021

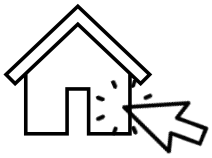
Specification

Ionad Oideachais Mhuineacháin

An Roinn Oideachais
Department of Education

Introduction

This learning log aims to support you during and after the online CPD 2020/2021 Graphics workshop. This learning log is divided into two sections and can be navigated in the next page using the table of contents. For ease of use the home icon shown underneath will navigate you to the table of contents when clicked. This icon can be found at the bottom of the page throughout this document.



Click icon to go to the Table of Contents

The first section details key information, key websites, supports developed by the JCt4 Graphics team and any other relevant updates.

The second section contains the material which will be discussed and engaged with during the Online CPD 2020/2021.

As always, the latest up to date information can be found on www.jct.ie and to keep up with any and all developments in Junior Cycle Graphics join our mailing list and follow us on twitter through the handle @JCt4ed.

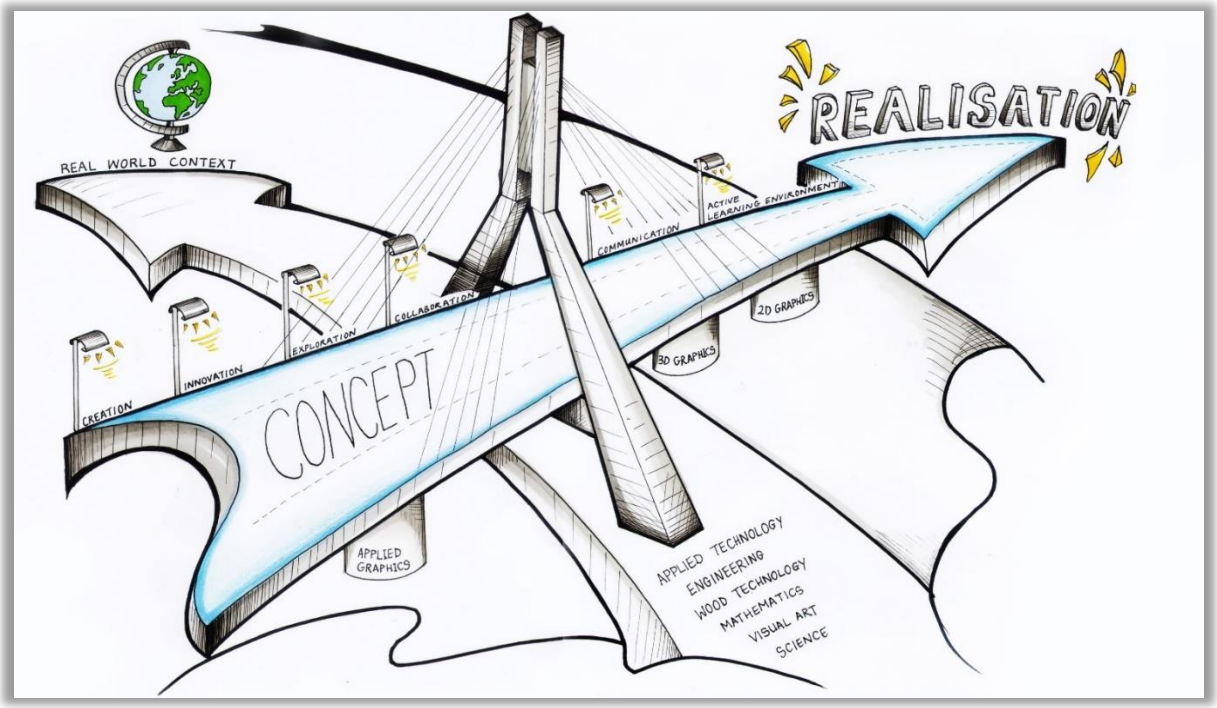
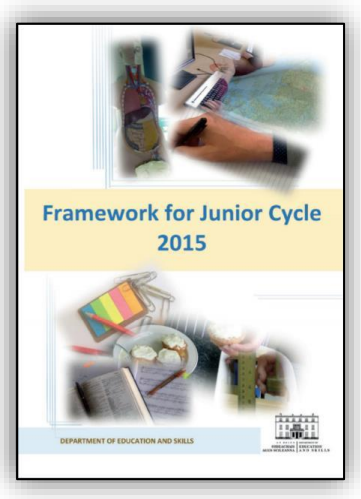
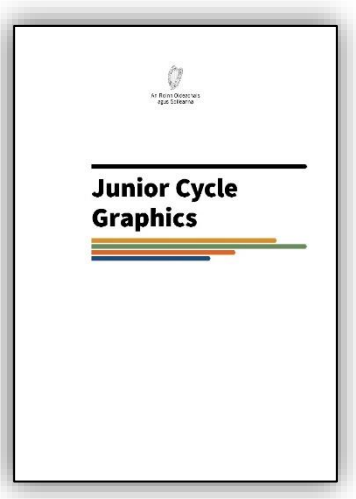


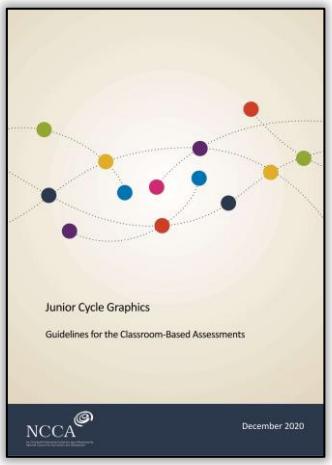
Table of Contents

Key Documents for Graphics:



www.ncca.ie





www.curriculumonline.ie

Key Websites/Online Information

www.curriculumonline.ie

www.ncca.ie

www.jct.ie

Twitter: @JCt4ed

Email: info@jct.ie
Graphics Mailing List

New supports for Junior Cycle Graphics Teachers

This section outlines new supports for Graphics teachers and will be explored at different stages throughout the workshop. This may also act as a support after the workshop, to keep up to date with all the latest from the JCt4 Graphics team join the mailing list and follow us on twitter.

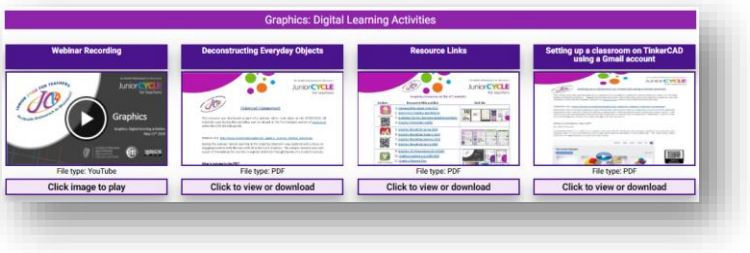
Elective CPD Events

The JCt4 Graphics team have been very busy since the previous CPD 2019/2020 workshop which finished on the 12th of March 2020. Since March the JCt4 Graphics team have completed five elective workshops engaging with a total of 1,043 teachers. Details of each elective workshop can be found below.

Graphics: Digital Learning Activities:

The focus of the webinar was to demonstrate Tinkercad, a cloud-based CAD modelling software, and the classroom feature within it. On the night, a member of the Graphics team completed a live demonstration of the setup of a classroom on the software and some basic modelling features. A full recording of this webinar as well as all associated handouts discussed on the night can be found on the www.jct.ie website in the elective section or by clicking the image below.

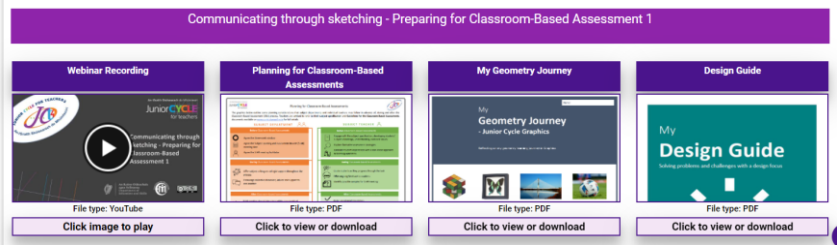
Graphics: Digital Learning Activities



Graphics: Communicating through sketching

To support teachers in planning for Classroom-Based Assessment 1, the JCt4 Graphics team hosted a webinar on Wednesday 7th of October at 7pm. The webinar included details of the four lenses for CBA 1 as well as suggestions for department and teacher planning in preparation for the Classroom-Based Assessment. To view a recording of the webinar and associated resources please click here.

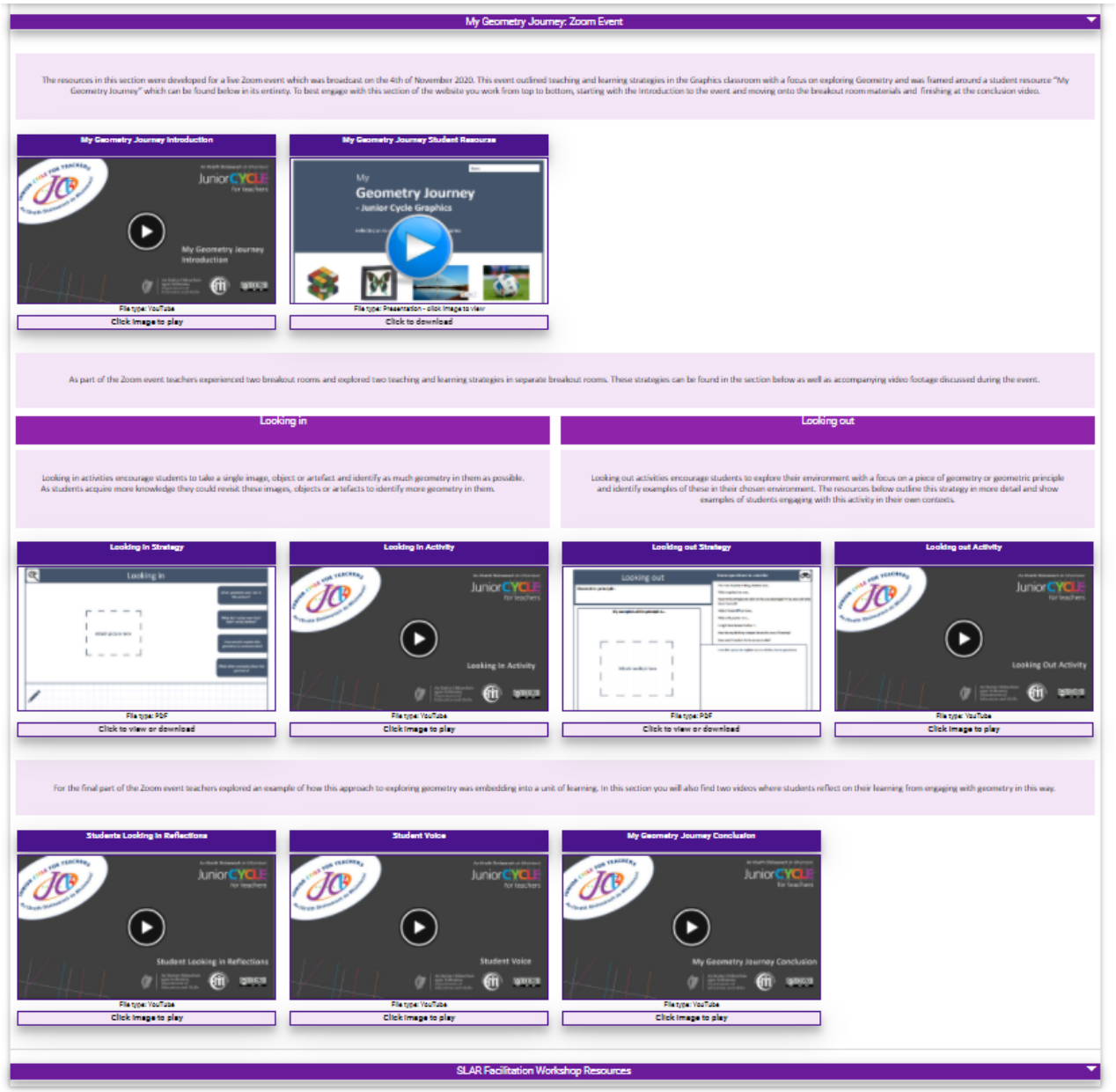
Graphics: Communicating through sketching



The Graphics team facilitated several electives CPD events through Zoom this academic year. These events are not recorded and as a result present themselves differently on the website in comparison to other webinars which are recorded events.

Exploring geometry in Junior Cycle Graphics using “My Geometry Journey” resource was an **interactive workshop** which guided teachers through a new student resource which encourages students to explore geometry in their environment and make links between everyday life and classroom learning. As part of this workshop there was samples of student work discussed and video footage of the student resource in action in a classroom setting.

To best engage with this elective CPD work from top to bottom on the website, starting with the Introduction to the event and moving onto the breakout room materials and finishing at the conclusion video. A layout of the resource of the website is shown below.

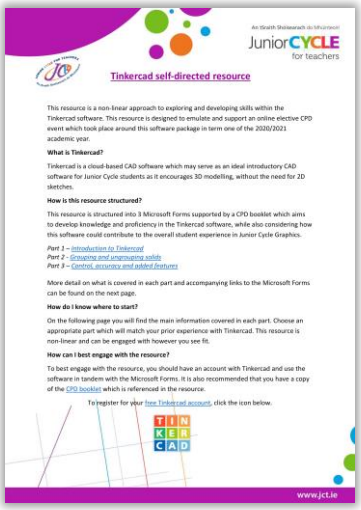


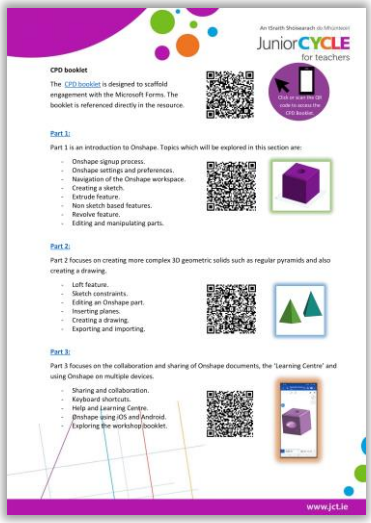
Cloud-based CAD workshops – Tinkercad and Onshape

The JCt4 Graphics team ran 12 elective CAD workshops exploring CAD as a teaching and learning tool in the Graphics classroom. In these workshops cloud-based CAD packages Tinkercad (6 workshops) and Onshape (6 workshops) were explored. These were hands-on workshops with live demonstrations and Q & A sessions. These events were not recorded so supports were developed for teachers to engage in self-directed learning and development in both Tinkercad and Onshape through Microsoft Forms, accompanying videos and CPD booklet. Click the images below to find out more information.

Tinkercad Tuesday

Onshape Thursdays



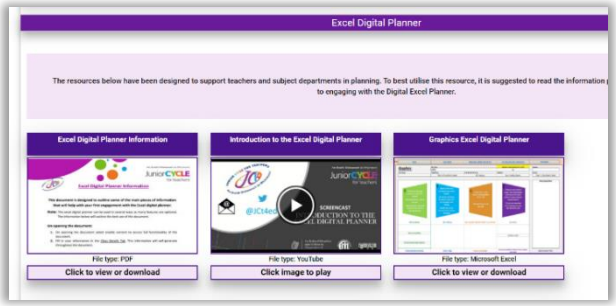


New Supports and Resources

The Graphics team have also been busy developing new supports and resources for teachers of Junior Cycle Graphics. Many of these resources were developed with teachers' feedback in mind.

Second Teaching Subject Supports:

This is a support developed around the CPD 2019/2020 workshop and includes 4 screencasts of the CPD workshop being presented by Graphics Advisors with the accompanying supports on the day. Click the image to navigate to this resource.

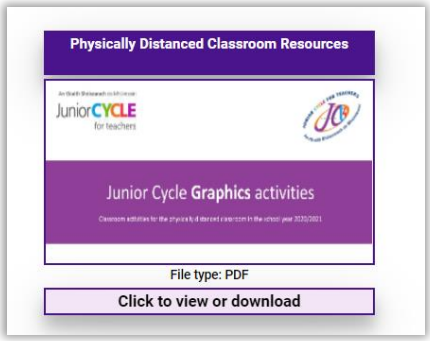


Graphics Excel Digital Planner:

The excel planner was developed around teacher feedback and scaffolds the planning process previously seen by the Graphics team using Microsoft excel. It is recommended to watch the accompanying screencast and read the information sheet to best utilise the resource.

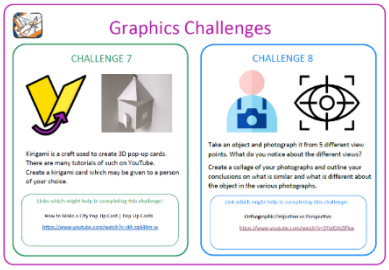
Physically Distanced Classroom Resource:

This was resource was developed as students and teachers made the transition back to school at the start of the 2020/2021 academic year. The JCt4 team aimed to create rich learning experiences to complement the Junior Cycle specifications, particularly in the wider context of students and teachers returning to school with COVID-19 procedures in place.

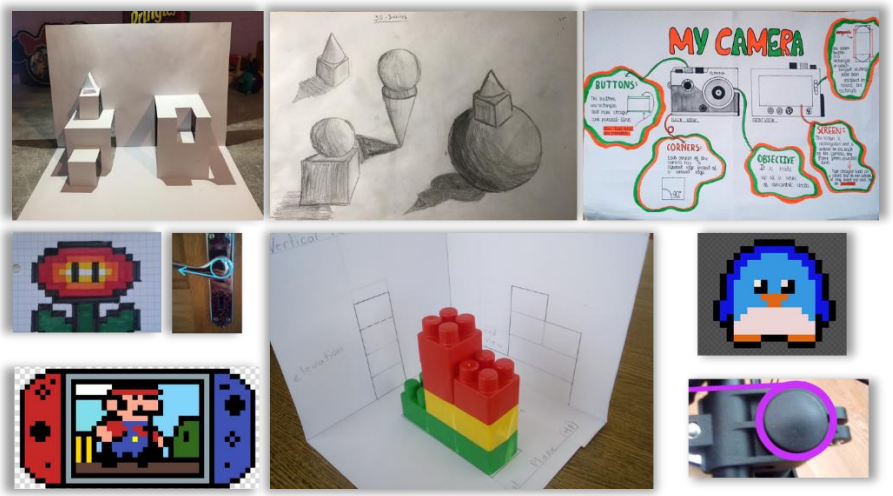


Students Engaging with Learning from Home:

During school closures the JCt4 team developed weekly challenges which were released every week for a period of 7 weeks. These weekly challenges have now been compiled to a single document. These activities only offer, as a suggestion, some possible tasks which could be completed by students if they are engaging with learning from home. Teachers knowledge of their own students' context should inform their decision around which activities would best engage their students.

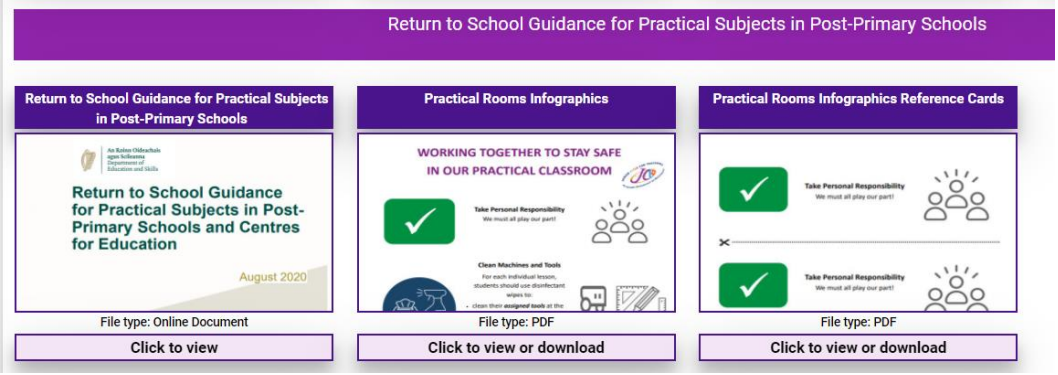


Some examples of how students engaged with the weekly challenges were sent to the Graphics team and can be found below.

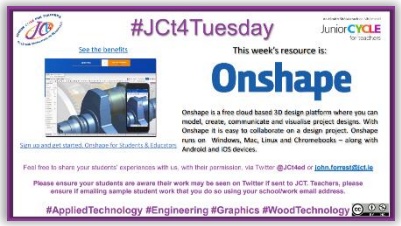


Return to School Practical Room Infographics:

The JCt4 team developed infographics for practical classrooms following the release of the "Return to School Guidance for Practical Subjects in Post Primary Schools and Centres for Education" document, to assist in the safe return to learning. These infographics are available in two formats and can be found on the resources section of the website. One format of the resource is an infographic room poster and the other format as individual reference cards which can be used as signage for specific locations in a practical classroom.



#JCt4Tuesday Digital Resources:

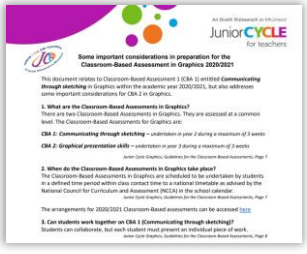


The JCt4 team generated weekly resource cards since September 2020 around possible digital Technologies which aim to promote a blended approach to teaching and learning in the Graphics classroom. These resource cards were part of a twitter campaign #JCt4Tuesday to highlight digital technologies across the suite of the Technologies subjects. Examples which would be very relevant to the Graphics classroom highlighted in this campaign would be Onshape, The Pocket Document Camera, Office Lens and Screencastify. To explore all the resource cards, visit the www.jct.ie website and go to the Resources section within Graphics. All the resource cards can be found under the Digital Technology Supports Tab.

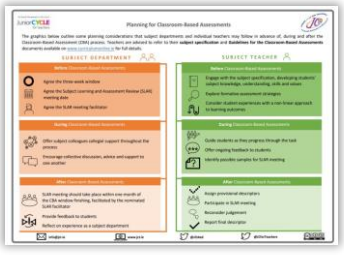
Classroom-Based Assessment 1 resources:

A number of supports have been developed to support teachers in the completion of Classroom-Based Assessment 1: Communicating through sketching. As outlined earlier a webinar aired on the 7th of October focusing on Classroom-Based Assessment 1. In conjunction with this webinar two supports were developed to aid teachers in the Classroom-Based Assessment process. The resources are as follows:

Important Considerations for CBA 1

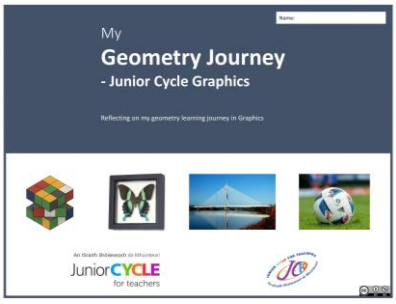


Planning for Classroom-Based Assessment



My Geometry Journey – Reflecting on my geometry learning in Graphics:

This is a student resource which was developed by the JCt4 Graphics team which encourages the exploration of the geometric world and making links between classroom learning and everyday life. The development of this resource was heavily influenced by teacher feedback from the CPD 2019/2020 core workshop. The resource is structured around two teaching and learning strategies ***'Looking In'*** and '***Looking Out'***. Looking In activities encourage students to identify as much geometry and/or geometric concepts/principles in a single object/image/environment. Looking out activities encourage students to apply their understanding of a specific geometry or geometric principle and identify it in several examples found by the student. Throughout this resource a multi-modal approach is encouraged for appropriate communication of graphical information. This resource was the focus of a Zoom event on the 4th of November and a full support has been developed around this event, including samples of student work, teacher testimonial and classroom footage. Click the images below to navigate different aspects of this resource.



CAD self-directed supports:

A self-directed resource package has been developed to emulate the very successful cloud-based CAD workshops which focused on Tinkercad and Onshape. Each software package has a dedicated set of supports to develop a broad range of skills and competencies in each software package. These supports are tiered and range from a basic introduction to the software, all the ways to exploring advanced commands. The support is structured using a series of Microsoft Forms which have embedding media throughout and can be engaged with in a non-linear fashion depending on each individual's level of competency and experience. Click the icons below to navigate to the resources section of the website.

Podcasts:

JCt4 were delighted to launch our Podcast playlist ***'Hands On'***, *as part of the* ***Junior Cycle Talks*** *podcast channel.* Our playlist will include lots of interesting conversations with people outlining their inspiration and creativity in many different walks of life from Game Designers, Architects, a Silver Smyth and everything in between.

Partnerships:

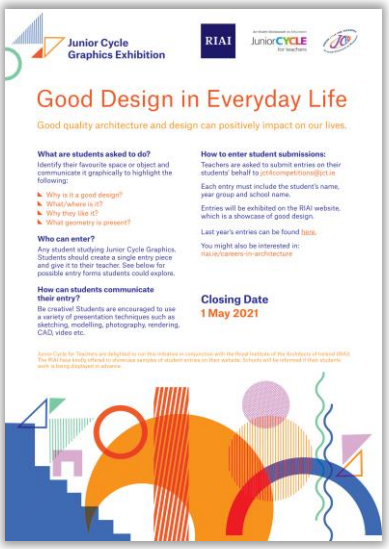
The Royal Institute of the Architects of Ireland (RIAI) are offering an opportunity for students studying Junior Cycle Graphics to have their work exhibited on the RIAI website. This is the second year of this partnership. Last year's entries were hosted digitally on the RIAI website and can be seen by clicking here.

What are students asked to do this year?

Identify their favourite space or object and communicate it graphically to highlight the following:

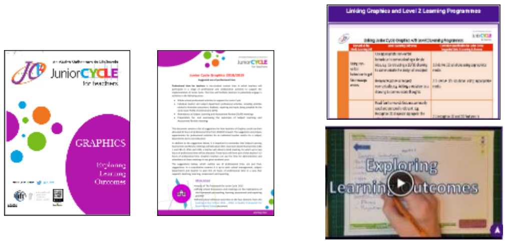
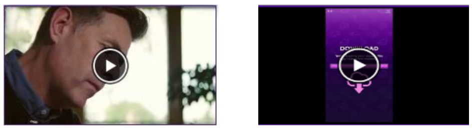
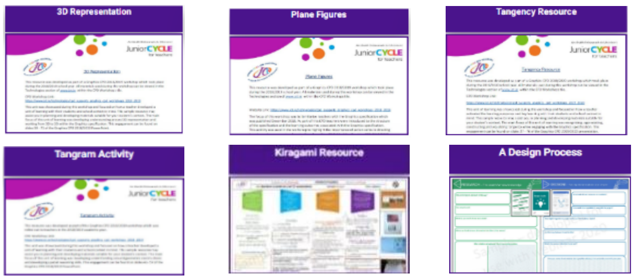
- Why is it a good design?
- What/where is it?
- Why they like it?
- What geometry is present?

Teachers are asked to submit entries on their students' behalf to **jct4competitions@jct.ie** by 1st May 2021. For full details on the exhibition visit the RIAI website or click on the images below.

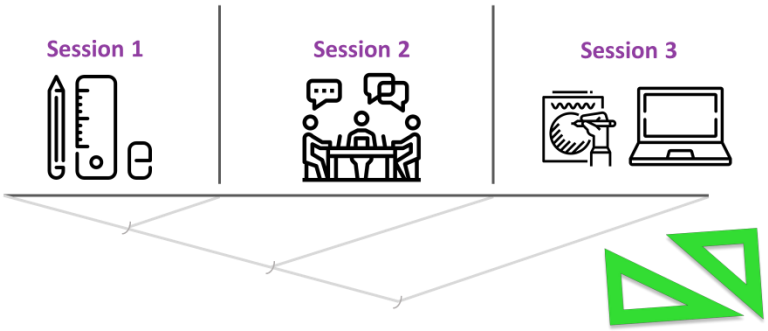


Existing supports:

The table below outlines existing supports available to Graphics teachers on www.jct.ie. This table is hyperlinked and to navigate to the resource click the image or title.

Section	Document title and link
 Key Documents	1. Framework for Junior Cycle 2015 2. Junior Cycle Graphics specification 3. Guidelines for the Classroom-Based Assessments 4. Graphics Information Leaflet 
 News/Events	5. Graphics Newsletter Autumn 2020 6. Graphics Newsletter Spring 2020 7. Graphics Newsletter Autumn 2019 8. Graphics Newsletter Summer 2019 9. Graphics Newsletter Spring 2019 
 CPD Workshops	10. Graphics CPD Presentation 2019/2020 11. Graphics Learning Log 2019/2020 12. Graphics Planning Tool 13. Graphics Exploring Learning Outcomes 14. Graphics Digital Planning Tool 15. Design Guide  
 Planning	16. Graphics Exploring Learning Outcomes 17. Exploring Learning Outcomes Video 18. Linking Graphics to Level 2 Learning Programmes 19. Graphics Professional Time 
 Assessment	20. Glossary of Assessment Terms 
 Resources	21. Dermot Bannon – Talks Graphics 22. Uploading images to the Merge Miniverse website  23. 3D Representations 24. Plane Figures 25. Tangency Resource 26. Tangram Activity 27. Kiragami Resource 28. A Design Process 

Structure of the Day:



Session 1: 9.30 – 11.00

- Introduction and ice breakers
- Familiarise ourselves with the 'Junior Cycle Graphics: Guidelines for Classroom-Based Assessments' document
- Explore the structure of Classroom-Based Assessment 2: Graphical presentation skills
- Explore the process involved in awarding a descriptor of achievement for Classroom-Based Assessments

Tea/Coffee – 11.00 – 11.20

Session 2: 11.20 – 1.00

- Exploring ongoing assessment to support all learners
- Explore a unit of learning

Lunch – 1.00 – 2.00

Session 3: 2.00 – 3.30

- Explore JCt4 developed online resources and reflect on our practice
- Discuss assessment in Junior Cycle Graphics

Ice Breaker Challenge:

Ice Breaker Challenge:

CPD Workshop 2020/2021 Session 1

In this session we will…

- Familiarise ourselves with the 'Junior Cycle Graphics: Guidelines for Classroom-Based Assessments' document
- Explore the structure of Classroom-Based Assessment 2: Graphical presentation skills
- Explore the process involved in awarding a descriptor of achievement for Classroom-Based Assessments

Notes

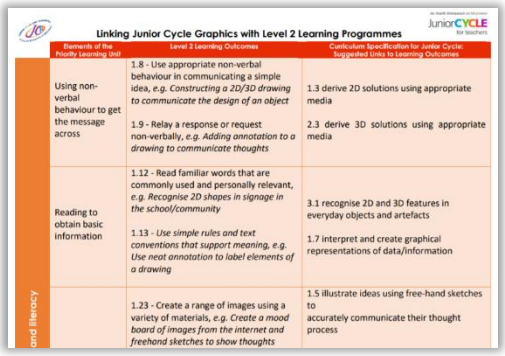
Level 2 Learning Programme

Throughout the day we will be reflecting on the how we can plan classroom experiences for all learners, including students studying the Level 2 Learning Programme(L2LP).

Prompt Questions:

What interests does Alex have which may aid his learning in the Graphics classroom?
What challenges may Alex experience in the Graphics classroom?

The school has liaised with Alex's parents and it is decided that John, who is not engaging with Graphics as a Level 3 subject, will be focusing on the Priority Learning Units (PLU) of ***Communicating and Literacy*** and ***Numeracy*** in the Graphics classroom. To aid Graphics teachers in such a process, a document called *'Linking Junior Cycle Graphics with Level 2 Learning Programmes'* was developed and can be found by clicking the image below or scanning the QR code.

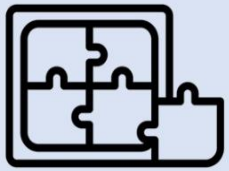


Linking Junior Cycle Graphics with Level 2 Learning Programmes

Elements of the Priority Learning Unit	Level 2 Learning Outcomes	Curriculum Specification for Junior Cycle: Suggested Links to Learning Outcomes
Communicating and literacy	Using non-verbal behaviour to get the message across	1.8 - Use appropriate non-verbal behaviour in communicating a simple idea, *e.g. Constructing a 2D/3D drawing to communicate the design of an object* 1.9 - Relay a response or request non-verbally, *e.g. Adding annotation to a drawing to communicate thoughts*	1.3 derive 2D solutions using appropriate media 2.3 derive 3D solutions using appropriate media
	Reading to obtain basic information	1.12 - Read familiar words that are commonly used and personally relevant, *e.g. Recognise 2D shapes in signage in the school/community* 1.13 - *Use simple rules and text conventions that support meaning, e.g. Use neat annotation to label elements of a drawing*	3.1 recognise 2D and 3D features in everyday objects and artefacts 1.7 interpret and create graphical representations of data/information
		1.23 - Create a range of images using a variety of materials, *e.g. Create a mood board of images from the internet and freehand sketches to show thoughts*	1.5 illustrate ideas using free-hand sketches to accurately communicate their thought process


An tSraith Shóisearach do Mhúinteoirí
JuniorCYCLE for teachers
Working with L1LPs & L2LPs - A Collaborative Journey
1
Identify
Identify the strengths and learning needs of students in your class, in consultation with parents & others
Continuum of Support Framework and Problem Solving Process
2
Choose
Choose suitable learning outcomes which meet the strengths & learning needs identified in Step 1
3
Link
Consider the links across subjects, PLUs & short course strands
4
Include
Include learning outcomes from PLUs and/or Short Course strands in your planning documents
5
Collaborate
Design cross-curricular plans with other teachers to meet the learning needs of students
6
Organise
Organise & develop timeframes to inform, collaborate, assess, review progress & evaluate portfolio
7
Create
Design and create inclusive learning experiences which provide access and challenge for ALL students
8
Assess
Assess student learning & gather evidence for student portfolio
9
Follow
Follow procedures for Short Course Classroom Based Assessments (CBAs)
10
Report
Report to students, parents and teachers on progress
11
Collate and Collaborate
Collate and collaborate with colleagues around final pieces in portfolio and the short course CBAs
12
Celebrate
Celebrate engagement and achievement with students and parents
BY NC
Monaghan Education Centre
https://twitter.com/JCTL1LPs_L2LPs
An Roinn Oideachais agus Scileanna
Department of Education and Skills

10 Minutes



Main action/discussion points:

- Say hello and introduce yourselves.
- Agree on the example/s and approach to exploring example. (Given by facilitator)
- Discussions around the example and evidence of lens within the student example.

- Nominate a reporter to feedback to the common room.

Feedback to common room:

- Example/s that were discussed.
- Lens that were used to explore the samples.
- General discussion points within the room.

Classroom-Based Assessment 2:

Skillsets for CBA 2

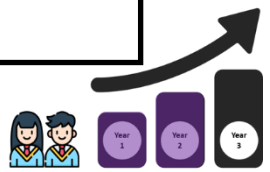
Lens 1: _____

1. **Primary Research**

Lens 2: _____

Lens 3: _____

Illustrate below your student's engagement with the skillsets associated with CBA 2



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Supporting Successful Student Research

Adapted from resources created by Erasmus+ ATS2020 Project

Before you start . . .

Check prior knowledge. What do I already know about the topic?

Decide on research goals

Develop your research question. How will you source your information? Have you considered all primary/ secondary research options available? Plan your research to meet your deadline and to help focus your work. How will you keep track of the information that you find?

Conduct research

Develop your search terms or priorities. For primary research, consider using both open and closed questions and test your research tool. Are you finding the information that you need? Do you need to change your terms/questions? Remember to keep a record of all your sources of information

Check reliability

How reliable are your sources of information? Could your source be biased? Can you verify your findings using another source? How up-to-date is your information?

Evaluate findings

What are the key findings from your research? Do the findings answer your research question? Have you referenced all your sources? What evidence can you include from your research?

After you finish . . .

Deciding what to share - How will I use my findings? How will I share my findings with others?

Discover

RESEARCH – The search for new knowledge

Think broadly

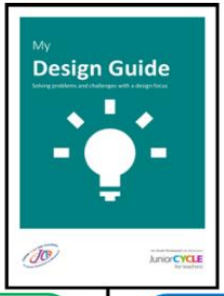
Define

DECISIONS – Making decisions about your project

Make decisions

Why is it designed and made in this way?

How does it work?



What materials and resources are available?

How much time is available to complete the project?

What do you need to know more about?

Where can I look for more information? Are there other sources?

What solutions already exist? Sketch an existing solution.

How might I organise my project and record the decisions I make?

Are there any features it must include?

What is the success criteria for the project?

From your research and analysis sketch possible solution/s that can be discussed with your peers.

Tips for... Better Research

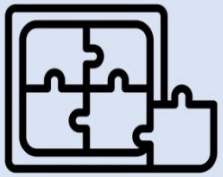
Ask Questions. Be curious. Be open to new ideas. Test and experiment with new ideas.

Use a broad range of primary and secondary sources. Reference your sources and question whether they are reliable sources

Sketch any ideas or solutions that come to mind all the way through your project, no matter how basic.

Look at people and notice how they use and access the spaces and products in the world around them.

10 Minutes



Main action/discussion points:

- Agree on the example/s that the group will be exploring.
- What concepts are evident in the example/s?
- How did the students explore the concept?

- Nominate a reporter to feedback to the common room.

Feedback to common room:

- Example/s that were discussed.
- Approaches taken in the student examples.
- General discussion points within the room.

Exploring Graphical Media

The icons below will lead you to the www.jct.ie website where you will find two self-directed pathways which will highlight some top tips and insights on different approaches to developing/enhancing graphical media. These supports will remain on the website after the online CPD 2020/2021 so feel free to explore them in your own time.

Select the images to start the exploration process...

Phone Photography Tips

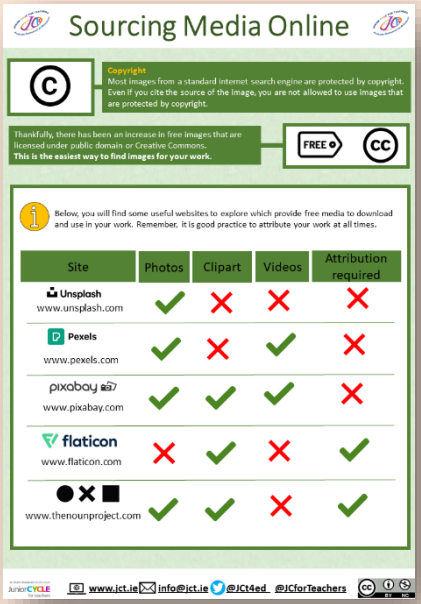
Prompt Questions:

What did I learn from engaging with this support?

How could this information influence my current practice?

How could I explore this information further with my students?

Sourcing Media Online



Prompt Questions:

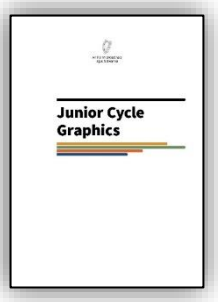
What did I learn from engaging with this support?

How could this information influence my current practice?

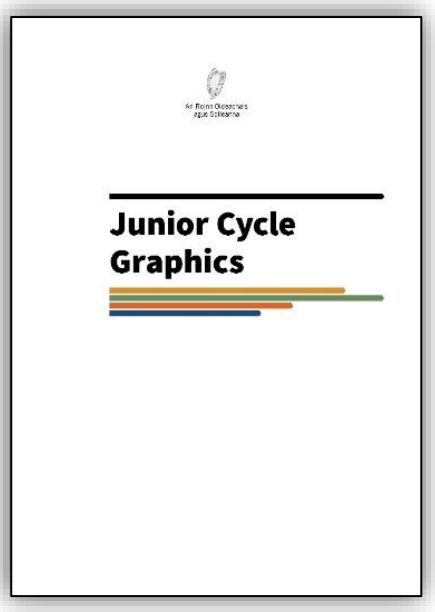
How could I explore this information further with my students?

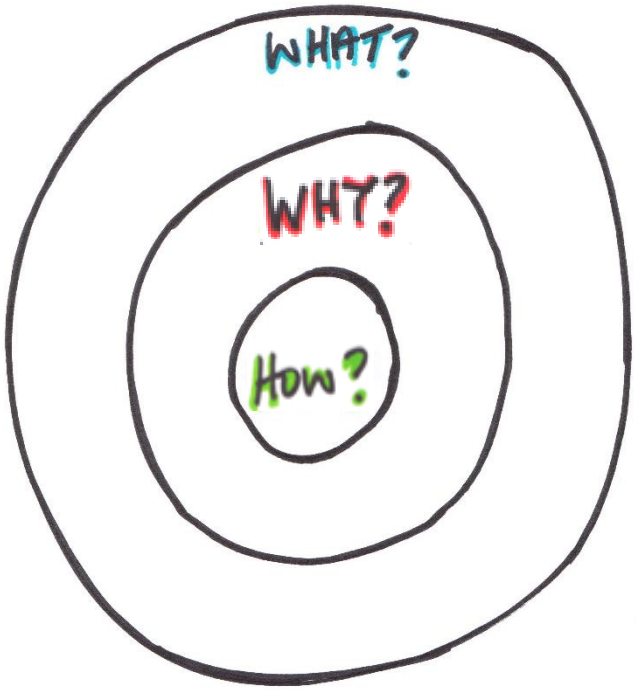
CPD Workshop 2020/2021 Session 2

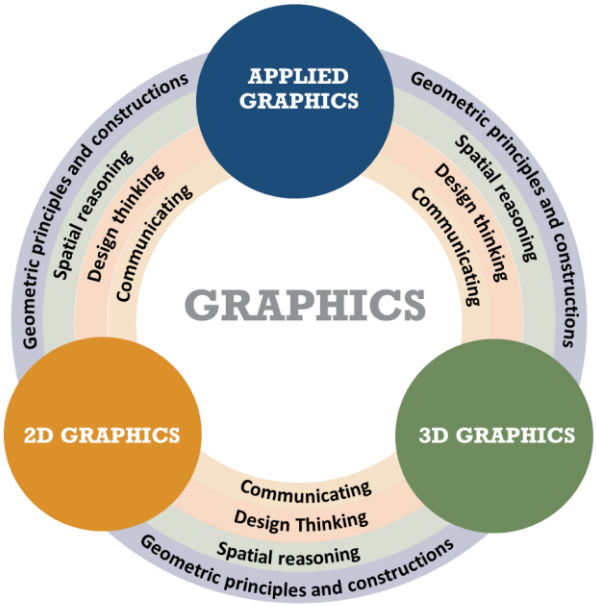
- **In this session we will…**
- Exploring ongoing assessment to support all learners
- Explore a unit of learning



Engaging with the Graphics Specification







Notes:

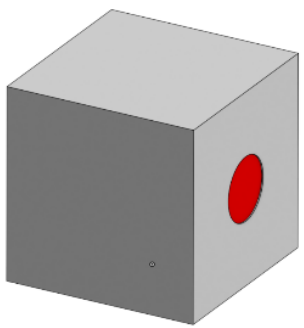
Visualisation Challenges

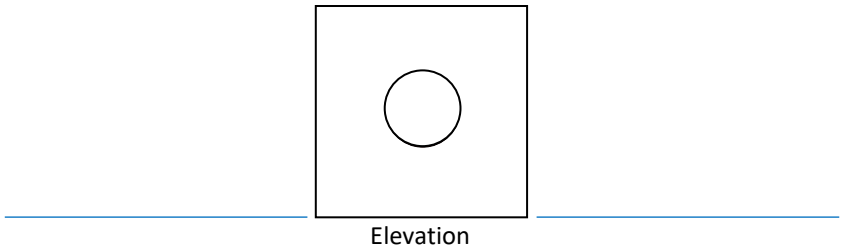
Challenge 1.

In the orthographic projection of a cubic die the elevation projects the true shape of the planar surface of the die that contains the number **1**. The plan shows a **2** and an end view projected from the left shows the number **3.**

- Sketch the numbers on the die and complete the sketch of the orthographic projection.

- What number will project as visible in the end elevation projected from the right? Research how the numbers on a die are laid out. (Primary or secondary source)

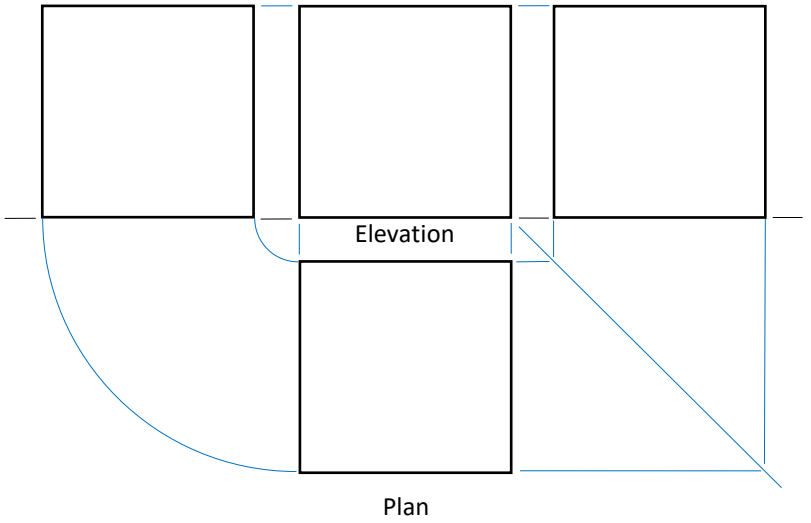




Challenge 2.

The dice is rotated clockwise (↻) 90° about any vertical edge.

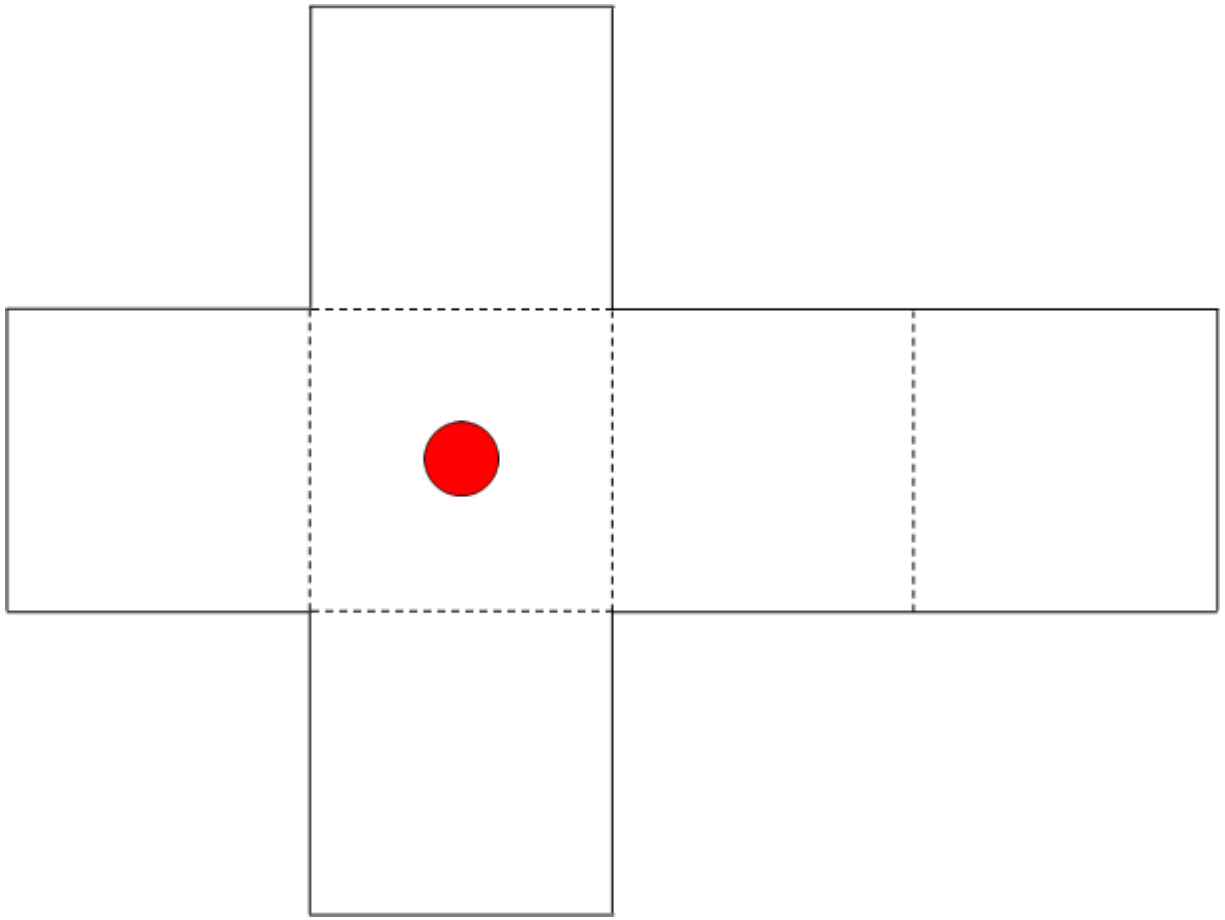
- Draw a 3D sketch of the die including numbers in its new position.
- Complete the orthographic projection of the die showing the numbers visible in each view.



Challenge 3

A development of the die is shown below.

- Complete the development layout by including all the numbers on the appropriate faces of the die.
- Apply the same colour on die faces to identify parallel planes when 3D model is created.
- Cut up the development and create a 3D model of the die.
- Use your model to reflect on and evaluate your solutions to challenges 1 and 2 and to aid visualisation of the further challenges.



Challenge 4.

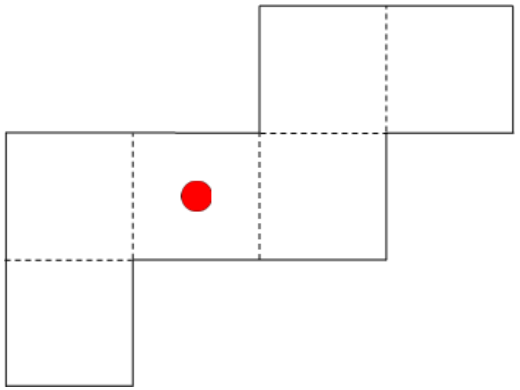
Position the die so that the projection in plan shows 2 planar faces and sums to 10.

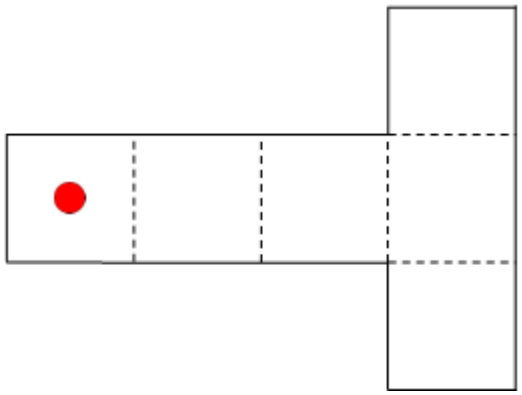
- Draw a 3D sketch of the die including numbers in its new position.
- Use the 3D model from challenge 3 to demonstrate your solution.

Challenge 5.

Partially complete developments of the die are shown below. Complete the development layouts by including all the numbers on the appropriate faces of the die. In each case, use the same colour on parallel planes when 3D model is created.

Draw an alternative development layout of your own for the die in the square grid below.





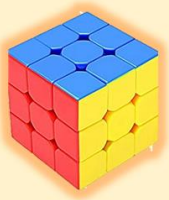
Exploring Geometric Solids:

Notes:

Geometric Solids

Cylinder:
Diameter – 40mm
Height – 50mm

Sphere:
Radius – 20mm



Cube:
Face – 50mm by 50mm

Square-Based Pyramid :
Base – 50mm by 50mm
Altitude – 50mm

Cone:
Diameter – 40mm
Altitude – 50mm

Triangular-Based Prism :
Triangular face – 40mm by 30mm perpendicular height
Length – 50mm

Task 1

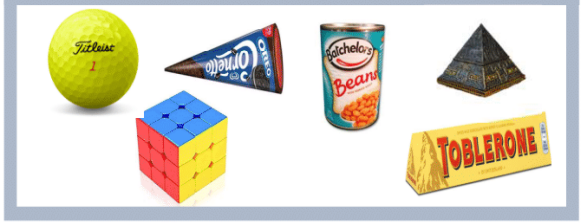
Given the objects below.

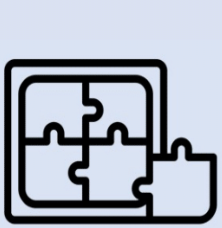
- Sketch an elevation and plan where the objects are in contact at a single point.

Task 2

Given the objects below.

- Create a graphical presentation of any two of the solids below when they are in contact at a single point.





10 Minutes

Main discussion points:

- Are both tasks assessing the same thing?
- Which task would provide a wider range of engagement from students? Why?
- Which task would you prefer your students to engage with?

- Nominate a reporter to feedback to the common room.

Feedback to common room:

- General comments around the prompt questions.
- What questions generated discussion in the group. Why?

‘Planes’ Task

Given the objects below.

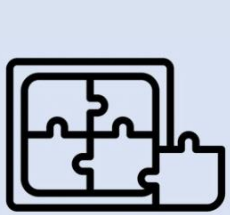
- Create a **graphical presentation** which will create planes in contact.

‘Line’ Task

Given the objects below.

- Create a **graphical presentation** of two of these solids in contact which will create a line of contact.

An tSraith Shóisearach do Mhúinteoirí



10 Minutes

Main action/discussion points:

- Create a number of solutions within your group, using various graphical presentation approaches within the group.
- Discuss the approaches that were taken to solve this task? What solids were used and why?
- Compare the graphical presentation techniques used in communicating the solution.

- Nominate a reporter to feedback to the common room.

Feedback to common room:

- Main discussion points.
- What were some of the approaches taken to solve the task.
- What different graphical presentation techniques were used?

Rationale

Each subject of the technology suite offers the student different experiences which contribute towards their education in technology education. As a result, preparing students for learning in the technology subjects is not just about teaching towards the technology but towards the skills that are fundamental to the technology subjects and are transferable into other areas of their learning. Skills that encourage the student to solve problems through creation, innovation, communication, collaboration, and exploration, all of which are developed in an active learning environment where students can advance their ideas from conception to realisation.

Graphics is recognised as the underpinning language of the technology disciplines and is transferable across a wide range of subjects such as mathematics, science and art. Students will use a variety of media to communicate their ideas and designs through this unique language. Throughout the course, students will explore the geometric world to gain an appreciation of the importance of graphics in the world around them. They will develop cognitive and practical skills such as graphical communication, spatial visualisation, creative problem-solving, design capabilities and modelling, both physically and through the use of computer-aided design.

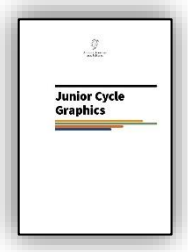
Students will develop their creativity as they investigate and solve design challenges. During the problem-solving process, they will work with their peers to refine their ideas from an abstract concept to a final, detailed, drafted design. Abstraction, and spatial reasoning are fundamental to this process; graphics provides multiple and varied opportunities for students to develop these high level cognitive and creative skills in engaging contexts.

Accurate technical drawings are essential in the design and manufacture of components and artefacts. The need for precise communication in the preparation of a functional document distinguishes technical drawing from the expressive drawing of the visual arts. Producing accurate drawings requires significant attention to detail and a patient and resilient mind-set. Students will continually review and reflect on their working drawings developing strategies for improvement as they progress.

Junior Cycle Graphics Specification, p. 4

Notes/comments:

Aim



The study of Graphics at junior cycle aims to:

- develop the student's creativity, spatial ability, and capacity to reason and communicate ideas through engagement with abstract and applied geometric problem-solving activities
- encourage the development of the cognitive and practical dexterity skills associated with graphical communication
- instil an appreciation of the role of graphics in the world around them
- equip all students to make judgements on the best mode through which to represent their ideas and solutions
- encourage the production of drawings that promotes the skills of communicating through graphics develop students cognitive and practical skills associated with modelling and graphical communication

Junior Cycle Graphics Specification

Notes/comments:

Action Verbs

Analyse: study or examine something in detail, break down in order to bring out the essential elements or structure; identify parts and relationships, and to interpret information to reach conclusions

Apply: select and use information and/or knowledge and understanding to explain a given situation or real circumstances

Appreciate: recognise the meaning of, have a practical understanding of

Communicate: use visual gestural, verbal or other signs to share meaning or exchange information; interaction between sender and recipient; both work together to understand

Construct: develop information in a diagrammatic or logical form; not by factual recall but by analogy or by using and putting together information

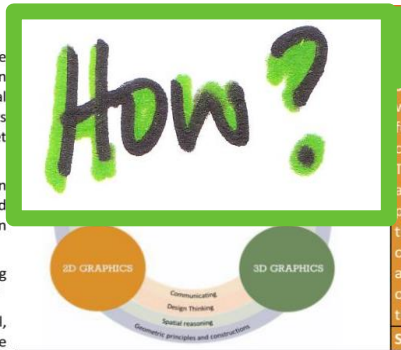
Create: process and give form to the topic of what is to be created using selected methods and material and/or to give the material used a new form

Demonstrate: prove or make clear by reasoning or evidence, illustrating with examples or practical application

Derive: to formulate or prepare from concepts

Develop: advance a piece of work or an idea from an initial state to a more advanced state

Evaluate: (data) collect and examine data to make judgements and appraisals; describe how evidence supports or does not support a conclusion in an inquiry or investigation; identify the limitations of data in conclusions; make judgements about the ideas, solutions or methods



Click here for A3 version

ning Tool

	Strand 1: 2D Graphics- In this strand, students will engage with, understand and apply the fundamental concepts and principles of 2D constructions, 2D shapes and projection systems. Throughout their studies, students will gain an appreciation of the application of 2D graphics to problem solving and develop an understanding of the role of 2D graphics in the creation of 3D objects and representations. Students should, as a result, be able to create clear representations of objects in space and accurately represent these in two-dimensions.	Strand 2: 3D Graphics- In this strand, students will engage with, understand and use the fundamental concepts and principles underpinning 3D objects, modelling systems and graphical conventions. This strand is of specific importance in developing each student's ability in visual imagery and representation. Students should as a result be able to accurately represent objects in three dimensions and apply these skills to problem solving	Strand 3: Applied Graphics- In this strand, students will draw on the knowledge, principles and techniques developed through the 2D Graphics and 3D Graphics strands to create and communicate solutions and information graphically. Students should be encouraged to investigate their physical environment and to apply the principles of 2D Graphics and 3D Graphics to the solution of a variety of problems. Students should be able to select the most appropriate methods to communicate their solutions and solve these problems, both in terms of their selection of graphical media and the mechanism for their utilisation.
	Students should be able to:	**Students should be able to:**	**Students should be able to:**
Spatial Reasoning- The learning outcomes from the different strands that are associated with this element encourage students to investigate a range of shapes, graphical information, objects and artefacts to assist students in developing their spatial ability. The learning outcomes aid the student in developing their abilities from initially recognising spatial properties to visualising their manipulation.	1.1 **visualise** the manipulation of 2D shapes 1.2 **analyse** graphical information for the planning of a 2D solution 1.3 **derive** 2D solutions using appropriate media	2.1 **visualise** the manipulation of 3D objects 2.2 **analyse** graphical information for the planning of a *3D solution* 2.3 **derive** *3D solutions* using appropriate media	3.1 **recognise** 2D and 3D features in everyday objects and artefacts 3.2 **appreciate** the hidden features of an object or an artefact necessary for its representation 3.3 **demonstrate** their spatial understanding by modelling and/or simulation
Design Thinking- The learning outcomes from the different strands that are associated with this element encourage students to use their understanding of Graphics to develop ideas and solutions to everyday problems. Students will develop the creative and innovative skills needed to develop and communicate their design solutions, influenced by their learning under the three strands.	1.4 **appreciate** the role of 2D graphics in the creation of solutions 1.5 **illustrate** ideas using free-hand sketches to accurately communicate their thought process 1.6 **apply** their understanding of geometric principles to solve problems 1.7 **interpret** and **create** graphical representations of data/information	2.4 **appreciate** the role of 3D graphics in the creation of solutions 2.5 **develop** ideas using free-hand sketches and other media to accurately communicate the thought process 2.6 **apply** their understanding of 3D principles to solve problems 2.7 **construct** solutions to presented and/or defined problems	3.4 **solve** real-context and abstract problems using graphical techniques 3.5 **analyse** and **evaluate** both their own work, and the work of others
Communicating- The learning outcomes from the different strands that are associated with this element encourage students to communicate through appropriate media to relay technical information, and to design ideas and solutions to problems. Emphasis should be placed on developing the students' abilities to communicate through a range of graphical media and make decisions on the appropriateness of specific media relative to specific stages of a design process.	1.8 **communicate** the progression of ideas and thinking during the course of an activity using a variety of media 1.9 **represent** 3D information using *2D conventions*	2.8 **construct** a *3D representation* of an artefact or abstract idea using a variety of media and methods 2.9 **communicate** the progression of ideas/thinking during the course of an activity using a variety of media	3.6 **develop** design ideas/solutions through modelling and prototyping using a variety of media 3.7 **use** computer-aided graphics to communicate design solutions effectively 3.8 **represent** graphically their approach to a design task 3.9 **apply** a variety of rendering and presentation techniques to enhance the communication of solutions
Geometric principles and constructions- The learning outcomes from the different strands that are associated with this element encourage students to execute their understanding of geometric shapes and objects in the construction of two-dimensional and three-dimensional representations and in the solving of geometric problems. Students will adapt their knowledge from classroom activities to explore the role of geometric principles and constructions in the natural world around them.	1.10 **understand** the properties of geometric shapes 1.11 **appreciate** the application of *geometric constructions* in the study of other areas 1.12 **construct** 2D solutions accurately in accordance with *graphical conventions*	2.10 **understand** the properties of geometric objects and surfaces 2.11 **appreciate** the application of *geometric principles* in the study of other areas 2.12 **generate** and **develop** design ideas using appropriate *geometric principles* and *constructions* 2.13 **apply** *geometric principles* to construct accurate *3D solutions* in accordance with *graphical conventions*	3.10 **investigate** and **apply** the principles of *plane and descriptive geometries* to create solutions 3.11 **investigate** how *geometric principles and constructions* found in the natural world have provided inspiration for human applications 3.12 **develop** an appropriate *graphical representation* of a solution to a *contextual problem of their choice*

2D convention	First angle orthographic, oblique, isometric drawing, axonometric	***Graphical Conventions***	Current standards, conventions and practices associated with drawing and illustration
3D representation	A view which displays a physical object or an abstract concept in a form which reflects length, depth and height.	***Contextual problem***	A problem which draws on a real world experience, situation or application
3D solution	A solution to a specific or abstract problem derived and/or presented using 3D technique/s.	***Geometric constructions***	The accurate drawing of points, lines, circles, angles, bisectors, divisions and other shapes using standard drawing instruments
Plane & Descriptive geometries	The graphical representation, description and analysis of relationships between points, lines and planes in space. The graphical representation of three dimensional objects in two dimensions.	***Geometric principles***	The fundamental principles which define and describe the nature of points, lines and planes together with the two dimensional and three dimensional shapes, solids, projection systems and constructions derived from them.

QR code for specification

Action Verbs

Evaluate: (ethical judgement) collect and examine evidence to make judgements and appraisals; describe how evidence supports or does not support a judgement; identify the limitations of evidence in conclusions; make judgements about the ideas, solutions or methods

Generate: to produce or create

Illustrate: (graphically) use drawings to describe something

Illustrate: use examples to describe something

Interpret: use knowledge and understanding to recognise trends and draw conclusions from given information

Interpret: (aesthetic) assign meaning to objects on the basis of observations and contextual knowledge; translate the effect of an image into words by reasoning and explaining on the basis of reflection and understanding why the image is how it is and is not different.

Investigate: observe, study, or make a detailed and systematic examination, to establish facts and reach new conclusions

Recognise: identify facts, characteristics or concepts that are critical (relevant/ appropriate) to the understanding of a situation, event, process or phenomenon

Represent: bringing clearly and distinctively to mind by use of description or imagination

Solve: find an answer through reasoning

Understand: have and apply a well-organised body of knowledge

Use: apply knowledge or rules to put theory into practice; employ something in a targeted way

Visualise: make something visible to the mind or imagination something that is abstract or not visible or present to the eye

An tSraith Shóisearach do Mhúinteoirí
JuniorCYCLE for teachers

Graphics:

Unit Title:	Include on Index sheet: Select Yes/No	Teacher:
Tinkercad and Solids in Contact	Yes	

Year Group:	Class Group:	Commencement Date:	Duration:
Year 1	Enter in Class Details sheet		4 Weeks

Consider the age, stage and prior learning of the students.

What learning do we want to focus on?

Explore both the strands and elements when choosing learning outcomes.

PRIOR LEARNING:

Orthographic, CAD, Bisection of angle, understanding of geometric objects

FOCUS ON LEARNING:

Principle of solids in contact

EXPLORE STRANDS AND ELEMENTS:

Spatial Reasoning, 2D, Applied Graphics, Geometric Principles and Constructions.

CHOSEN LEARNING OUTCOMES:

2.1 visualise the manipulation of 3D objects

1.6 apply their understanding of geometric principles to solve problems

3.10 investigate and apply the principles of plane and descriptive geometries to create solutions

3.12 develop an appropriate graphical representation of a solution to a contextual problem chosen by them

3.7 use computer-aided graphics to communicate design solutions effectively

Identify the learning outcomes for your unit of learning.

Identify the key learning for students using action verbs to support your thinking.

Consider how we will assess and report evidence of learning

KEY LEARNING:

3.10 - Observe geometric solids and apply understanding of orthographics projection.
Action Vebs: Investigate & Apply

3.7 & 2.1 - Use of Tinkercad to select geometric objects
Action Verbs: Use and visualise

3.12 - Using the snippling tool, sketch and [illegible] graphic view in layout of page.
Action Verbs: Develop

1.6 - Bisection of angle, orthographic views of solids & Freehand sketching.
Action Verb: Apply

ACTION VERBS:

Visualise: make something visible to the mind or imagination something that is abstract or not visible or present to the eye

Apply: select and use information and/or knowledge and understanding to explain in a given situation or real circumstances,

Investigate: observe,study,or make a detailed and systematic examination, to establish facts and reach new conclusions.
Apply: select and use information and/or knowledge and understanding to explain a given situation or real circumstances.

Develop: advance a piece of work or an idea from an initial state to a more advanced state
Use: apply knowledge or rules to put theory into practice; employ something in a targeted way

Develop ideas for how students could experience this learning.

How will I know they are learning?

HOW STUDENTS COULD EXPERIENCE THE LEARNING:

Investigation of real-world geometric objects,
Use of CAD and IT,
Freehand sketching,
Group work,
Problem solving,
Discussion and peer learning

ONGOING ASSESSMENT:

3.10 & 2.1 - Discussion around the My Geometry Journey start and finish.

2.1 & 3.7 - Recognise the Cone, Pyramid and Spher from the Tinkercad library

3.12 - Use snipping tool for copy and paste, use of Powerpoint , resizing blank sheet to A3

1.6 - Freehand sketch and rendering of objects to match the colour scheme of the Tinkercad

1.6 & 3.12 - Draw the objects in contact in elevation and plan

Using your own classroom context, what methodologies and resources will support students in experiencing the learning outcomes.

Ensure assessment aligns with the learning outcomes and their action verbs

RESOURCES:

My Geometry Journey, Computers (TinkerCad can also work at home), Examples of Geometric objects, post-its.

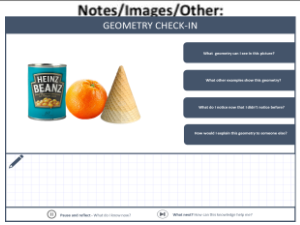
METHODOLOGIES:

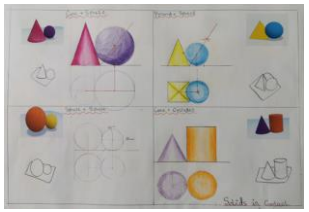
Think, pair, share
Peer Discussion,
Using CAD and IT,
Teacher Demonstration,
Accurate board drawing,
Sketching and rendering,
Research

HOW WILL STUDENTS EXPERIENCE THE LEARNING OUTCOMES?

1. Discussion around the Geometry Journey
2. Use of Tinkercad to model basic Geometric shapes,
3. Use snip tool and PowerPoint to develop a customised worksheet.
4. Research of Geometric Principle 11(throughout).
5. Sketching and rendering of solids in contact
6. Accurate board drawings including the bisect the line construction
7. End of unit assessment
8. Revisit My Geometry Journal.

Notes/Images/Other:





REFLECTION:

Due to COVID -19 the final assessment wasn't completed.

The use of Tinkercad and the snipping tool worked very well.

Surprised by the amount of learning in using the snipping tool and PowerPoint.

An tSraith Shóisearach do Mhúinteoirí
JuniorCYCLE for teachers

Designed by JCt4.

CPD Workshop 2020/2021 Session 3

In this session we will…

- Explore JCt4 developed online resources and reflect on our practice
- Discuss assessment in Junior Cycle Graphics

Updates/Notes

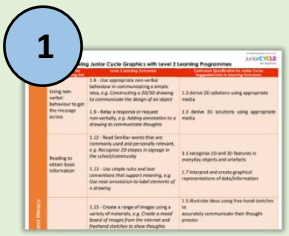
Self-directed pathways

The information in the following pages outlines the self-directed pathways that can be explored in this final session.

Found below is a description of each pathway and any additional information and supports that may be relevant for teachers to aid in the exploration process of each pathway.

Select the images to start the exploration process...

Linking Level 2 Learning Programmes(L2LP)



1. *Linking Junior Cycle Graphics with Level 2 Programmes*

This document was developed by the JCt4 to aid teachers in planning for students studying the L2LP in the Graphics classroom.

Prompt Questions:

- How can this document aid in the planning and consideration for students studying the L2LP?
- What information did you find most useful in this support and why?

2. *Working with L1LPs & L2LP – A Collaborative Journey*

This document was developed by the JCT L1LPs/L2LPs Team to support the collaborative process which teachers could use when planning across departments. Read the poster and consider the prompt questions that follow.

Prompt Questions:

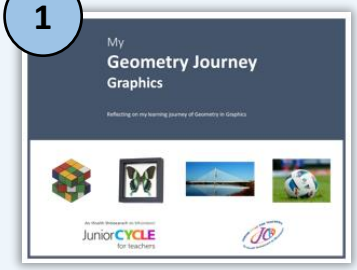
- What step do you feel you could in your own practice improve on? What makes you think that?
- Do you think this document would help start a conversation with a college in another subject department?

Further Information

For further information on Linking the Level 2 Learning Programme and the Technology subjects click the image on the right to view a webinar which looks at this process in more detail.

Student supports

1



1. My Geometry Journey

This is a student support which was developed by the JCt4 Graphics team which encourages the exploration of the geometric world and making links between classroom learning and everyday life. The resource is structured around two teaching and learning strategies 'Looking In' and 'Looking Out'. Explore the resource while considering the prompt questions underneath.

Prompt Questions:

- What is the *'Looking in'* strategy? How would you describe it to someone else?
- What is the *'Looking out'* strategy? How would you explain this to someone else?
- How could you integrate this support into your student's engagement of Junior Cycle Graphics?

2

2. My Design Guide

This is a student support that was developed by the JCt4 team to encourage design thinking when engaging with a project. The design process is explored through four stages with each stage of the process uses questions to learn more about the idea or problem and to bring solutions to life. Explore the resource while considering the prompt questions underneath.

Prompt Questions:

- What is the name of the design process that this support follows? What are the stages that it is broken up into?
- Can the support be used in a non-linear fashion? If so, how?
- Do all questions have to answered on each page?
- How would you introduce this support to your students?

Further Information

For further information on 'The My Geometry Journey' you can explore a support found in elective CPD section of the www.jct.ie website which outlines a recent Zoom event focusing on embedding this support in the Graphics classroom.

Classroom-Based Assessment 1 – Communicating through sketching

1

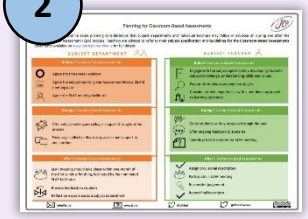
1. Important Considerations for CBAs

This document relates to Classroom-Based Assessment 1 (CBA 1) entitled Communicating through sketching in Graphics within the academic year 2020/2021, but also addresses some important considerations for CBA 2 in Graphics. Explore the resource while considering the prompt questions underneath

Prompt Questions:

- When do the Classroom-Based Assessments in Graphics take place?
- Does the student submission for CBA 1 follow a prescribed format/layout?
- When should the Features of Quality be shared with students for CBA 1?
- Should feedback on CBA 1 be provided to students? When?

2



2. Planning for Classroom-Based Assessments

This is a graphic which outlines some planning considerations that subject department and individual teachers may follow in advance of, during and after the CBA process. Explore the resource while considering the prompt questions underneath.

Prompt Questions:

- Having explored this poster what conversations would you have with subject department teachers in your school prior to engaging with a CBA.
- As a subject teacher what areas do you feel you could improve on or need to find more information on?

Further Information

For a further information on Classroom-Based Assessment 1 – Communicating through sketching in Graphics click the image on the left which will take you to a pre-recorded webinar on which was broadcast on the 7th October 2020.

CAD Supports

Onshape Thursday Elective

Onshape Thursday CAD Elective

This pathway explores a cloud-based CAD package called Onshape and supports a recent CAD elective focusing on Onshape. This support is structured using Microsoft Forms focusing on different features. This support can be engaged with in a non-linear fashion and by reading the context page you can identify an appropriate starting point to reflect your own experience in the software.

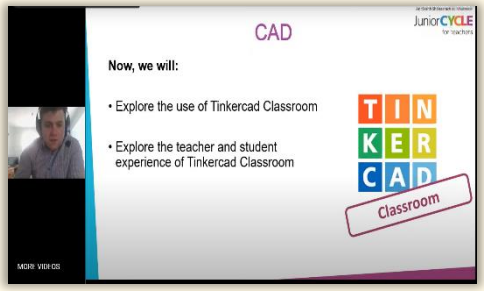
Tinkercad Tuesday Elective

Tinkercad Tuesday CAD Elective

This pathway explores a cloud-based CAD package called Tinkercad and supports a recent CAD elective focusing on Tinkercad. This support is structured using three Microsoft Forms, focusing on different features. This support can be engaged with in a non-linear fashion and by reading the context page you can identify an appropriate starting point to reflect your own experience in the software.

Further Information

For further information on how Tinkercad could be used in the Graphics classroom you can view a webinar titled 'Graphics: Digital Learning Technologies' by clicking the image on the right. This webinar was broadcast on the 1st of May 2020.



Reflecting on these supports

'We do not learn from experience… we learn from reflecting on experience.' - John Dewey

Support(s):

Brief overview of support

Key messages that resonate with you through engagement with this resource.

How could this influence your practice going forward?

Reflecting on these supports

Supports(s):

Brief overview of support

Key messages that resonate with you through engagement with this resource.

How could this influence your practice going forward?

Updates/Notes

Action Verbs

Analyse: study or examine something in detail, break down in order to bring out the essential elements or structure; identify parts and relationships, and to interpret information to reach conclusions

Apply: select and use information and/or knowledge and understanding to explain a given situation or real circumstances

Appreciate: recognise the meaning of, have a practical understanding of

Communicate: use visual gestural, verbal or other signs to share meaning or exchange information; interaction between sender and recipient; both work together to understand

Construct: develop information in a diagrammatic or logical form; not by factual recall but by analogy or by using and putting together information

Create: process and give form to the topic of what is to be created using selected methods and material and/or to give the material used a new form

Demonstrate: prove or make clear by reasoning or evidence, illustrating with examples or practical application

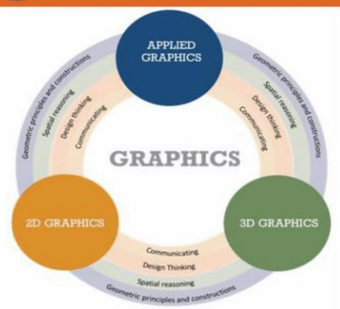
Derive: to formulate or prepare from concepts

Develop: advance a piece of work or an idea from an initial state to a more advanced state

Evaluate: (data) collect and examine data to make judgements and appraisals; describe how evidence supports or does not support a conclusion in an inquiry or investigation; identify the limitations of data in conclusions; make judgements about the ideas, solutions or methods

QR code for specification

Graphics Planning Tool



	Strand 1: 2D Graphics- In this strand, students will engage with, understand and apply the fundamental concepts and principles of 2D constructions, 2D shapes and projection systems. Throughout their studies, students will gain an appreciation of the application of 2D graphics to problem solving and develop an understanding of the role of 2D graphics in the creation of 3D objects and representations. Students should, as a result, be able to create clear representations of objects in space and accurately represent these in two-dimensions.	**Strand 2: 3D Graphics-** In this strand, students will engage with, understand and use the fundamental concepts and principles underpinning 3D objects, modelling systems and graphical conventions. This strand is of specific importance in developing each student's ability in visual imagery and representation. Students should as a result be able to accurately represent objects in three dimensions and apply these skills to problem solving	**Strand 3: Applied Graphics-** In this strand, students will draw on the knowledge, principles and techniques developed through the 2D Graphics and 3D Graphics strands to create and communicate solutions and information graphically. Students should be encouraged to investigate their physical environment and to apply the principles of 2D Graphics and 3D Graphics to the solution of a variety of problems. Students should be able to select the most appropriate methods to communicate their solutions and solve these problems, both in terms of their selection of graphical media and the mechanism for their utilisation.
	Students should be able to:	**Students should be able to:**	**Students should be able to:**
Spatial Reasoning- The learning outcomes from the different strands that are associated with this element encourage students to investigate a range of shapes, graphical information, objects and artefacts to assist students in developing their spatial ability. The learning outcomes aid the student in developing their abilities from initially recognising spatial properties to visualising their manipulation.	1.1 **visualise** the manipulation of 2D shapes 1.2 **analyse** graphical information for the planning of a 2D solution 1.3 **derive** 2D solutions using appropriate media	2.1 **visualise** the manipulation of 3D objects 2.2 **analyse** graphical information for the planning of a *3D solution* 2.3 **derive** *3D solutions* using appropriate media	3.1 **recognise** 2D and 3D features in everyday objects and artefacts 3.2 **appreciate** the hidden features of an object or an artefact necessary for its representation 3.3 **demonstrate** their spatial understanding by modelling and/or simulation
Design Thinking- The learning outcomes from the different strands that are associated with this element encourage students to use their understanding of Graphics to develop ideas and solutions to everyday problems. Students will develop the creative and innovative skills needed to develop and communicate their design solutions, influenced by their learning under the three strands.	1.4 **appreciate** the role of 2D graphics in the creation of solutions 1.5 **illustrate** ideas using free-hand sketches to accurately communicate their thought process 1.6 **apply** their understanding of geometric principles to solve problems 1.7 **interpret** and **create** graphical representations of data/information	2.4 **appreciate** the role of 3D graphics in the creation of solutions 2.5 **develop** ideas using free-hand sketches and other media to accurately communicate the thought process 2.6 **apply** their understanding of 3D principles to solve problems 2.7 **construct** solutions to presented and/or defined problems	3.4 **solve** real-context and abstract problems using graphical techniques 3.5 **analyse** and **evaluate** both their own work, and the work of others
Communicating- The learning outcomes from the different strands that are associated with this element encourage students to communicate through appropriate media to relay technical information, and to design ideas and solutions to problems. Emphasis should be placed on developing the students' abilities to communicate through a range of graphical media and make decisions on the appropriateness of specific media relative to specific stages of a design process.	1.8 **communicate** the progression of ideas and thinking during the course of an activity using a variety of media 1.9 **represent** 3D information using *2D conventions*	2.8 **construct** a *3D representation* of an artefact or abstract idea using a variety of media and methods 2.9 **communicate** the progression of ideas/thinking during the course of an activity using a variety of media	3.6 **develop** design ideas/solutions through modelling and prototyping using a variety of media 3.7 **use** computer-aided graphics to communicate design solutions effectively 3.8 **represent** graphically their approach to a design task 3.9 **apply** a variety of rendering and presentation techniques to enhance the communication of solutions
Geometric principles and constructions- The learning outcomes from the different strands that are associated with this element encourage students to execute their understanding of geometric shapes and objects in the construction of two-dimensional and three-dimensional representations and in the solving of geometric problems. Students will adapt their knowledge from classroom activities to explore the role of geometric principles and constructions in the natural world around them.	1.10 **understand** the properties of geometric shapes 1.11 **appreciate** the application of *geometric constructions* in the study of other areas 1.12 **construct** 2D solutions accurately in accordance with *graphical conventions*	2.10 **understand** the properties of geometric objects and surfaces 2.11 **appreciate** the application of *geometric principles* in the study of other areas 2.12 **generate** and **develop** design ideas using appropriate *geometric principles* and *constructions* 2.13 **apply** *geometric principles* to construct accurate *3D solutions* in accordance with *graphical conventions*	3.10 **investigate** and **apply** the principles of *plane and descriptive geometries* to create solutions 3.11 **investigate** how *geometric principles and constructions* found in the natural world have provided inspiration for human applications 3.12 **develop** an appropriate *graphical representation* of a solution to a *contextual problem of their choice*

2D convention	First angle orthographic, oblique, isometric drawing, axonometric	***Graphical Conventions***	Current standards, conventions and practices associated with drawing and illustration
3D representation	A view which displays a physical object or an abstract concept in a form which reflects length, depth and height.	***Contextual problem***	A problem which draws on a real world experience, situation or application
3D solution	A solution to a specific or abstract problem derived and/or presented using 3D technique/s.	***Geometric constructions***	The accurate drawing of points, lines, circles, angles, bisectors, divisions and other shapes using standard drawing instruments
Plane & Descriptive geometries	The graphical representation, description and analysis of relationships between points, lines and planes in space. The graphical representation of three dimensional objects in two dimensions.	***Geometric principles***	The fundamental principles which define and describe the nature of points, lines and planes together with the two dimensional and three dimensional shapes, solids, projection systems and constructions derived from them.

Action Verbs

Evaluate: (ethical judgement) collect and examine evidence to make judgements and appraisals; describe how evidence supports or does not support a judgement; identify the limitations of evidence in conclusions; make judgements about the ideas, solutions or methods

Generate: to produce or create

Illustrate: (graphically) use drawings to describe something

Illustrate: use examples to describe something

Interpret: use knowledge and understanding to recognise trends and draw conclusions from given information

Interpret: (aesthetic) assign meaning to objects on the basis of observations and contextual knowledge; translate the effect of an image into words by reasoning and explaining on the basis of reflection and understanding why the image is how it is and is not different.

Investigate: observe, study, or make a detailed and systematic examination, to establish facts and reach new conclusions

Recognise: identify facts, characteristics or concepts that are critical (relevant/ appropriate) to the understanding of a situation, event, process or phenomenon

Represent: bringing clearly and distinctively to mind by use of description or imagination

Solve: find an answer through reasoning

Understand: have and apply a well-organised body of knowledge

Use: apply knowledge or rules to put theory into practice; employ something in a targeted way

Visualise: make something visible to the mind or imagination something that is abstract or not visible or present to the eye

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Planning for Classroom-Based Assessments

The graphics below outline some planning considerations that subject departments and individual teachers may follow in advance of, during and after the Classroom-Based Assessment (CBA) process. Teachers are advised to refer to their **subject specification** and **Guidelines for the Classroom-Based Assessments** documents available on www.curriculumonline.ie for full details.

SUBJECT DEPARTMENT

Before Classroom-Based Assessments

- Agree the three-week window
- Agree the Subject Learning and Assessment Review (SLAR) meeting date
- Agree the SLAR meeting facilitator

During Classroom-Based Assessments

- Offer subject colleagues collegial support throughout the process
- Encourage collective discussion, advice and support to one another

After Classroom-Based Assessments

- SLAR meeting should take place within one-month of the CBA window finishing, facilitated by the nominated SLAR facilitator
- Provide feedback to students
- Reflect on experience as a subject department

SUBJECT TEACHER

Before Classroom-Based Assessments

- Engage with the subject specification, developing students' subject knowledge, understanding, skills and values
- Explore formative assessment strategies
- Consider student experiences with a non-linear approach to learning outcomes

During Classroom-Based Assessments

- Guide students as they progress through the task
- Offer ongoing feedback to students
- Identify possible samples for SLAR meeting

After Classroom-Based Assessments

- Assign provisional descriptors
- Participate in SLAR meeting
- Reconsider judgement
- Report final descriptor

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My Learning Journey
in Junior Cycle Graphics

A Classroom-Based Assessment (CBA) is a snapshot of where you are on your learning journey in Graphics. The CBA is an opportunity for you to demonstrate your knowledge, skills, understanding and values as well as your experience from 1st year and prior to that. While each CBA focuses on specific lenses, both support the ongoing development of your Graphics skills and understanding. The CBAs will also support you in engaging with your project and examination in Year 3 of Junior Cycle and further into Senior Cycle.

AFTER CBA 2

Listen to the feedback from your teacher during and after CBA 2. Use this feedback together with your own reflections on your work to further develop your knowledge and understanding in the project domain.

DURING CBA 2

CBA 2 asks you to research and investigate the domain in which the final project will be situated and to present your findings graphically through any appropriate media. This domain will change each year and will be related to the Year 3 project. There is particular focus on the following lenses:

Research and analysis | **Exploring concepts** | **Graphical presentation**

Note:
As you move through CBA 2, reflect, evaluate, record and communicate what you are learning and how your thinking develops.

YEAR 3 - CBA 2 MOMENT

BEFORE CBA 2

Be curious, focus on research and comparing concepts, develop graphical presentation, evaluation and communication skills.

Make links between what you learn in Graphics and the world around you and explore topics and ideas that are of interest to you in the project domain.

YEAR 1 - MY LEARNING JOURNEY

CBA 2 IS RELATED TO A DOMAIN OF THE YEAR 3 PROJECT

YEAR 3

Written Examination 70% & Project 30%

A project and a written examination are set by the State Examinations Commission (SEC) in Year 3 of Junior Cycle. Both forms of assessment will give you an opportunity to demonstrate your learning and experiences over the three years of Junior Cycle Graphics.

Note:
Take time to reflect on your progress over the three years and through both CBA 1 and CBA 2. Think about the feedback you received from your teacher and how you might apply this feedback to your project and examination.

YEAR 3 - FINAL ASSESSMENT

AFTER CBA 1

Listen to the feedback from your teacher during and after CBA 1. Use this feedback, together with your own reflections on your work to further develop your Graphics knowledge, skills, understanding and values.

DURING CBA 1

CBA 1 asks you to choose a stimulus theme to graphically communicate your ideas using two-dimensional and/or three-dimensional sketching techniques. You are encouraged to explore your surroundings for examples of geometric concepts and choose a stimulus which is relevant to you and has links between classroom learning and everyday life. There is particular focus on the following lenses:

Researching of ideas | **Geometric concepts** | **Sketching representation** | **Communicating your CBA**

Note:
As you move through CBA 1, reflect, evaluate, record and communicate what you are learning and how your thinking develops.

YEAR 2 - CBA 1 MOMENT

BEFORE CBA 1

Be curious, experiment with sketching techniques, develop research, evaluation and communication skills.

Make links between what you learn in Graphics and the world around you and explore topics and ideas that are of interest to you.

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