Key Skills of Junior Cycle

Being Creative

NCCA
An Chomhairle Náisiúnta Curaclaim agus Measúnachta
National Council for Curriculum and Assessment

Being Creative – the elements

1. **Imagining**
2. **Exploring options and alternatives**
3. **Implementing ideas and taking action**
4. **Learning creatively**
5. **Stimulating creativity using digital technology.**

> *"Creativity is the process of developing ideas that are original and of value. Creative intelligence is dynamic, diverse and distinct."* **Sir Ken Robinson**

This resource offers some ideas that teachers can use to help students develop skills related to being creative. No doubt you will find lots of additional ways to develop this skill.

School and creativity

"The US researcher Sternberg argues that as children move through school, they quickly learn how the system works and suppress their spontaneous creativity. This doesn't happen, however, at home, on digital platforms or out with their friends where they are often highly creative……A key issue in my view is being convinced that play and creativity have an important role in education, and that as professionals we have a responsibility to nurture these."

Teresa Cremin, Professor of Education at the Open University

"*Those classroom climates that promoted creative thinking and problem solving were: open, comfortable, relaxed, challenging, safe, supportive, trusting, humorous, energized and collaborative. Such climates rewarded creative behaviour and encouraged thinking and exploring processes: students were free to voice opinions through non-threatening, entertaining and enjoyable methods*." (**Hamza** and **Griffith**, 2006)

Movie

Before looking at the different elements of this skill, the following video clips might be useful to prompt discussion on *Being Creative* in the classroom:

Videos on Creativity, Learning & the Curriculum by Sir Ken Robinson

Do schools kill creativity? (5 mins 42) https://www.youtube.com/watch?v=NFubmeHDtII

Changing education paradigms (11mins 40) https://www.youtube.com/watch?v=zDZFcDGpL4U

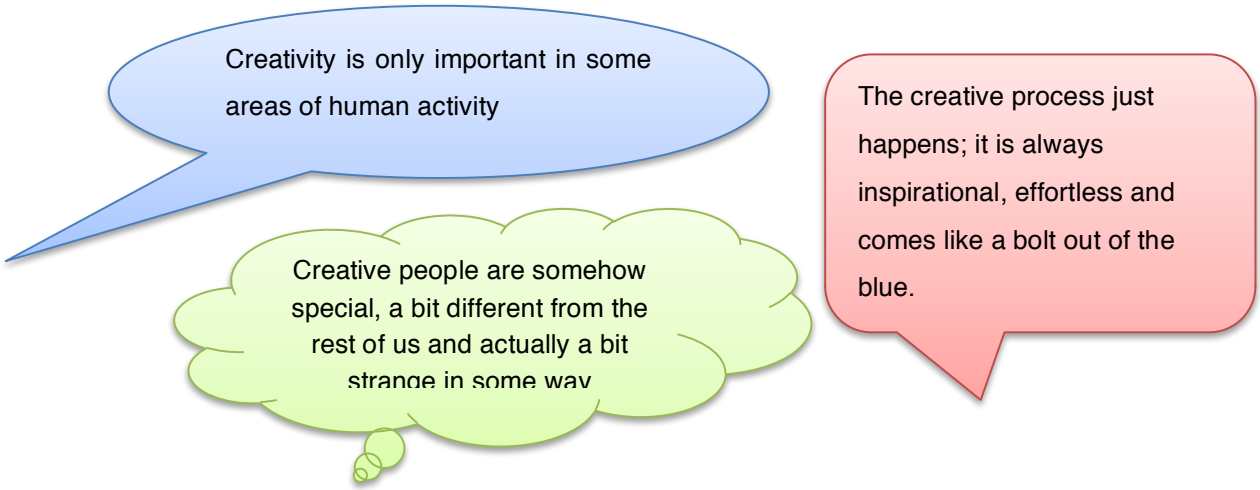
Creativity, Learning & the Curriculum (29 mins)
http://www.youtube.com/watch?v=9X0CESnGQ8U

Some characteristics of a classroom climate that encourages creativity:

- There is structure and order.
- There is high challenge, low threat.
- There are high expectations.
- Personal differences are accepted.
- People are accepted as individuals of unconditional worth.
- Extreme and early evaluations and judgements are avoided.
- Self-evaluation is encouraged.
- There is openness and trust.
- There is a positive attitude to novelty.
- Divergence is accepted and rewarded.
- Ambiguity and uncertainty are tolerated.
- Alternative solutions are taken seriously.
- Speculation and fantasy are encouraged.
- People feel free to express themselves.

Teaching and Learning Scotland, 2001

Common myths about creativity



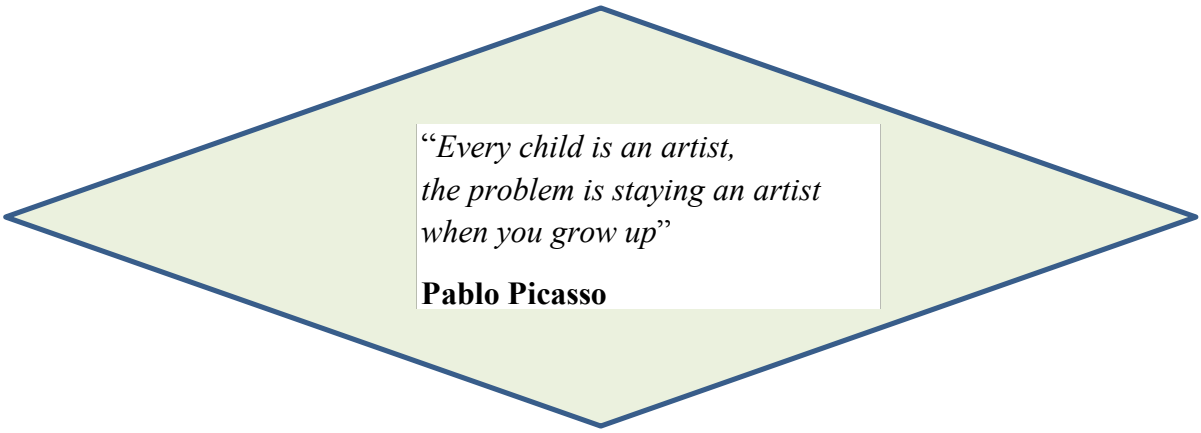
The main messages about creativity in learning

- Most individuals believe they are not very creative. However, creativity is not just about special people doing special things. We all have the potential to be creative and creativity is a skill that needs to be developed.

- Creativity embraces both hard and soft thinking. The most powerful creative thinking occurs when the left and right hemispheres of the brain combine to act as both 'artist' and 'judge'.
- The use of collaborative learning groups helps to foster creativity.

Getting started with your students – practical classroom ideas

Display inspirational quotations on creativity on your classroom walls. You'll find lots of ready-made collections if you do a Google search of 'Famous quotes on creativity'.



Remember that the biggest single influence on the atmosphere in any classroom is the behaviour of the teacher

Model your own desire to be creative and to learn about your students and your subject. Encourage them to be supportive of **people** and critical of **ideas**. Make it 'all right not to know' and even better to question.

Model a useful problem-solving method. Problem-solving can be difficult and sometimes tedious. Show students by your example how to be patient and persistent and how to follow a structured method. Use the various problem-solving methods throughout this toolkit.

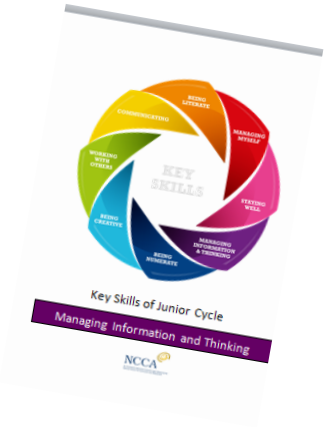
Take enough time. Build 'wait time' into your lessons, i.e. encourage students NOT to raise their hands quickly when a question is asked, rather to wait and think before offering an answer.

Ask questions and make suggestions. Ask students to predict "what would happen if…" or explain why something happened. This will help them to develop analytical and deductive thinking skills. Also, ask questions and make suggestions about strategies to encourage students to reflect on the problem-solving strategies that they use.

Link errors to misconceptions. Use errors as evidence of misconceptions, not carelessness or random guessing. Make an effort to isolate the misconception and correct it, then teach students to do this by themselves. We can all learn from mistakes.

Points to consider

- Ask students to give ideas for creative strategies.
- Devise a class charter with students.
- Allow for both broad and narrowly-focused experimental activity.
- Encourage an attitude of respect, hope and wonder at the potential power of creativity.
- Encourage self-expression that is oriented towards a given task.
- Emphasise the use of the imagination, originality, curiosity and questioning.



See ***Managing Information and Thinking*** toolkit, page 22-27 for more on thinking creatively and critically

What does the research say about creativity?

If you would like to read a summary of what the research has to say about creativity in learning follow these links

http://www.journeytoexcellence.org.uk/resourcesandcpd/research/summaries/rsfosteringcreativity.asp

Or check out www.educationscotland.gov.uk/learningandteaching/approaches/creativity

Imagining

The learning outcomes of this element are:

I can use different ways of learning to help develop my imagination

I can imagine ways that I can make a positive difference in the world

I can take inspiration from the courage and imagination of others

I can express my feelings, thoughts and ideas through movement, writing, music, art, storytelling, drama and imaginative modes of expression

"Imagination may well lead to inventions, but imagination itself is not about adding to the world, but about connecting with it. As Dewey says, a person of full or imaginative perception is capable of 'seeing what is there'. Rather than speak of novelty, then, ***we would do better to think of imagination as a kind of freshness of vision.***" Higgins, C., 2009

Discuss

If imagination is a ‘kind of freshness of vision’ or a way of seeing or doing things differently, think about how you can encourage imagination amongst your students in their day to day learning.

How can you prompt them to approach tasks in a fresh way?

How can you avoid students always looking for the ‘right way’ or the teacher’s way of doing things?

Getting started with your students –

Practical classroom ideas to encourage imagining

Use brainstorming to encourage fresh thinking and develop imagination

Brainstorming is a technique for generating new ideas on a topic, usually a problem that seems hard to solve. The rules for brainstorming are designed to help people be creative and spontaneous in their thinking so that as many ideas as possible, are generated.

Edward De Bono’s Six Thinking Hats®

'Six Thinking Hats' is an important and powerful technique. It is used to look at decisions from a number of important perspectives. This forces students to move outside their habitual thinking style, and helps them to get a more rounded view of a situation.

Using the Six Thinking Hats

The Six Thinking Hats approach can be used to address almost any problem-solving activity you might encounter in the classroom. Assigning each thinking style a colour serves as a visual cue to help students recognize the thinking skill they are using. The six different hats students might wear, and the kinds of

thinking they represent, are briefly described below:

Blue Hat: Sum up all that is learned.
White Hat: Set out the facts and other objective information about the topic
Red Hat: Share feelings and emotions about the issue.
Green Hat: Consider creative ideas that come from looking at the topic in a new way.
Yellow Hat: Consider positives, or advantages.
Black Hat: Present negative aspects, or worst case scenarios.

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Look at this 1 minute overview of the functions of the Six Thinking Hats®
http://www.youtube.com/watch?v=Rwu1YIveU_4

Developing students' empathetic imagination

Empathy is the ability to see the world from the shoes of another person. This ability to identify with the feelings, thoughts or attitudes of another is an important aspect of our imaginations.

Using photos

Photos can be used in language classes, History, Geography, and lots of subjects to develop students' capacity to imagine what it would be like to be in that moment. You might use historic images of people and events, or current images of people who are experiencing challenges or triumphs and ask students to imagine what they would think, feel and do if they were in the picture. Students might choose a character from a photograph and take on the role. Other class members can then question them in role. Or each group might be given a photo mounted on a large sheet of paper and then write what they think the character in the photo might be thinking and feeling.

Using role play

Role-playing exercises teach skills that are often assumed to be learned outside of the classroom (and sometimes aren't). These exercises require the students to use their empathetic imagination, background knowledge appropriate to the character being role-played, and communications skills.

McDaniel, 2000[1], says there are four essential elements to ensure successful role play:

1. The activity builds on the knowledge that the students already possess.
2. Roles must be designed to maximise student involvement and conflict.
3. Set up a specific situation with a focal point for debate.
4. Teacher must have limited involvement but be willing to be flexible.

Role play can be used in **English** class to explore characters in a novel or play; in **CSPE** to extend understanding of how marginalised people feel when their rights are not respected, in **Business Studies** to role play making a complaint as a consumer or in any subject where students are encouraged to explore the thoughts or motivations behind a person's actions.

Using rolestorming[2]

Rolestorming is a combination of brainstorming and role play which encourages group members to take on someone else's identity and so come up with new ideas. The technique is useful because it helps to break down students' inhibitions about sharing ideas. It can also provoke better ideas, since you're looking at the problem from different perspectives.

Follow these steps to use rolestorming with your students:

1. Identify roles

Decide which roles or identities you'll use. You can assign one role to each student in the group, or play the one role per group, moving on to another role when finished with one.

Consider people such as someone in public life, a leader from the past, a famous person, a successful business leader. Ideally students should know enough about them to take on their identity for a short time. (They don't necessarily have to be associated with the problem you're trying to solve.)

2. Get into character

For each role, allow group members a few minutes to get into character. Use these questions to help with this:

- How does this person see the world?
- What is this person's personality or attitude likely to be?
- How would this person solve problems?

[1] McDaniel, K. N. (2000). Four elements of successful historical role-playing in the classroom. History Teacher, 33(3), 357-362.

[2] This method is adapted from the following website www.mindtools.com/pages/article/rolestorming.htm

- What are this person's strengths and weaknesses?

Students are encouraged to make an effort to get into the persona of the character; the more deeply they understand this person's feelings, worldview, and motivations, the better they can use this perspective to generate good ideas.

Note: Avoid having someone on the team choosing to become a person that everyone knows, such as the Principal, another teacher or another student. Make sure that they avoid characterisations that could be harmful or disrespectful.

3. Brainstorm in character

When students have a good sense of the new identity they've taken on, start brainstorming and encourage students to use phrases such as "My person..." or "My character..." when presenting ideas – this helps to create the distance that people need to speak freely. Make sure that everyone in the group has an opportunity to speak up and share ideas. (Techniques like Round-Robin Brainstorming can be useful here.)

4. Repeat as required Repeat the exercise with as many different identities as you need, so that you can generate enough good ideas.

Tableaux

A tableau is like a photograph or freeze frame. It is a still image, like a scene at the waxworks. Students use position, levels, body posture and facial expression to portray an incident or idea. The image must have significance; it should capture a crucial or poignant moment.

Tableaux can be used:

- To portray and study significant moments in history, religious ceremonies, business life, a novel, a poem, a play or biological process.
- To freeze and examine movements in dance or sport.
- As a starting point for creative writing.
- To enact chemical reactions.
- To show moral dilemmas.

Method:

- Give groups time to prepare.
- Groups present their image in turn. Each tableau is sustained long enough for the audience to work out what is being portrayed. Ground rules will be needed to make sure images aren't mocked.

- To bring out the meaning and learning two procedures can be followed. (1) Members of the audience, including the teacher, ask direct questions of the character by role name not student name. (2) The teacher takes the lead, calling on the players in turn.
- When called upon, the players must say what they are thinking and feeling (as the character) which can lead to further questions from the audience.

(Source: ***The Teacher's Toolkit,*** Paul Ginnis*)*

Use film

- to give students an experience of different lifestyles/countries/eras in history (*imagine you were there)*.
- to give students insights into characteristics of influential people (*imagine you are that person)*.
- to prompt students' imaginations to write an essay/newspaper article/blog based on what or who they have seen.
- to allow students to express their feelings, thoughts or ideas.

Many prescribed plays and novels are available in film version. For example, the film *The Boy in the Striped Pyjamas* can be used to support John Boyne's novel. The JCSP Support Service has produced a workbook to accompany the film which encourages students to reflect on aspects of the film.
http://www.pdst.ie/sites/default/files/The%20Boy%20in%20the%20Striped%20Pyjamas%20Workbook%202012.pdf

I think we should talk more about our empathy deficit - the ability to put ourselves in someone else's shoes; to see the world through the eyes of those who are different from us - the child who's hungry, the steelworker who's been laid off, the family who lost the entire life they built together when the storm came to town. When you think like this, when you choose to broaden your ambit of concern and empathise with the plight of others, whether they are close friends or distant strangers; it becomes harder not to act; harder not to help.

Barack Obama, 2006

Taking inspiration from the courage and imagination of others

Students could research the most inspiring people in **Business, Music, IT, Sport, Social Entrepreneurship, Design**, **Science, Literature** or in an area that interests them. Questions that might guide the research could include:

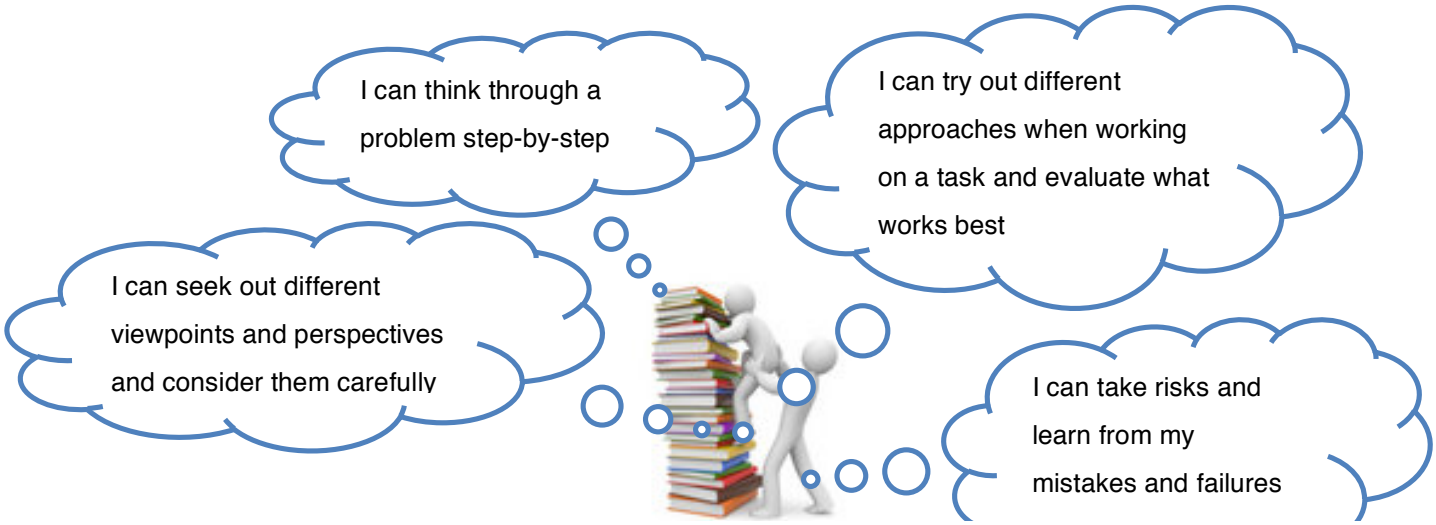
- What makes that person's work inspiring?
- How did that person use imagination?
- What obstacles were met and how were they overcome?
- In what way did that person work collaboratively with others in the process?
- How does that person make a positive difference in the world?
- How can I make a positive difference in the world using my gifts?

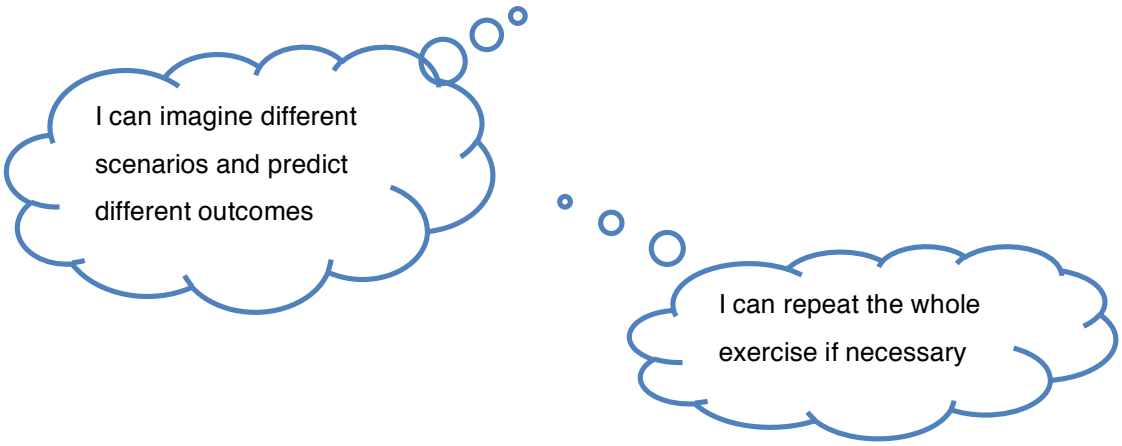
Consider this 2 minute video from Derek Sivers, *Obvious to you, Amazing to others* at https://www.youtube.com/watch?v=xcmI5SSQLmE

Exploring options and alternatives

Creative students explore possibilities, keep their options open and learn to cope with the uncertainty that this brings. This involves setting goals (or having goals set for them), then choosing the best path towards this goal and working their way up that path evaluating progress as they go. Sometimes the only way to find whether a route leads to your goals is to try it.

The learning outcomes of this element of are:





Discuss with a colleague: what are the advantages for students of learning how to explore different options and alternatives for themselves? As a department, how could you work together to improve students' ability to

- think trough problems step-by-step
- seek out different perspectives
- try out different approaches when working on a task
- take risks and be prepared to make mistakes
- dare to be different

Helping your students to think through a problem step-by-step

- can help students to solve problems independently.
- is a skill that takes time and practice to develop.

Begin with 1st years by helping students to think through a problem, not to solve it straight away but to think it through logically. Allow sufficient time for the learner to think through the problem e.g. by using graphic organisers or flow charts.

Use graphic organisers for exploring options and alternatives

There are dozens of different types of graphic organisers available to help students organise their thoughts or information they have/need. The internet has a lot to offer so don't reinvent the wheel. You'll find some ideas at these links:

http://www.pdst.ie/node/2336

http://www.teachervision.fen.com/graphic-organizers/printable/6293.html?&detoured=1

Find graphic organisers for your subject by entering a search on a web browser e.g. *graphic organiser for English.*

Thinking through a problem step-by-step — some tips for students

- Stick to the question.
- Do not write down everything—just the important facts and key steps.
- Identify what you know or what is given.
- Brainstorm.

To problem solve students need to

- be persistent … practising to improve and not giving in.
- be responsive … overcoming difficulties.
- use reasoning … by choosing different options to solve a problem.
- be reflective … by learning from mistakes and making changes.
- demonstrate independence … by working at something and eventually succeeding.
- manage feelings of frustration or worry at not finding the answer straight away.

Turn the lesson content into problems to solve

Teachers of every subject can do this. Using a constructivist approach allows students to work things out for themselves. Independent learning or group work can be used here

Paul Ginnis suggests using these prompts when setting an open-ended problem based task:

See if you can …

work out ...

find out ...

fathom ...

calculate ...

estimate ...

imagine ...

decide on ...

advise ...

solve ...

get to the bottom of ...

convince ...

unravel ...

prove ...

recommend ...

plan ...

refute ...

come up with a proposal for ...

suggest the most effective way of ...

tell me the answers / rules / connections / principles / priorities / flaws / uses / components / influences / constraints / similarities / differences / possibilities / applications / exceptions ...

Bransford and Stein (1984) use the acronym **IDEAL** to represent the five steps usually contained in many solution strategies.

1. **I**dentify the problem.
2. **D**efine and represent the problem.
3. **E**xplore possible solution strategies.
4. **A**ct on the strategies.
5. **L**ook back and evaluate.

Mystery

Mystery is a problem-solving activity based round a given central question that is open to more than one reasonable answer. The information or 'clues' needed to answer the question are presented on separate slips of paper that your students will **analyse, sort, sequence** and **link.**

Mysteries are a good introduction to inquiry-based learning.

- They provide students with an inquiry experience that fits neatly into one lesson.
- They provide you with the opportunity to make inquiry structures and skills explicit and memorable.

- They motivate. The narrative thread that runs through a mystery will successfully engage your students and they will be eager to find out more about the character at the centre of the action and events.

Mental blocks to creativity
The right answer
That's not logical
Follow the rules
Be practical
Play is frivolous
That's not my area
Avoid ambiguity
Don't be foolish
To err is wrong
I am not creative

Source: ***Teaching and Learning Scotland***

Helping your students to take risks and learn from mistakes

Lots of creative people have become so because they are not afraid to take risks or make mistakes.

In class we can help students overcome fear of failure and resistance to risk-taking by

- discussing risk taking with them. Ask them how they feel about taking risks in learning.
- modelling risk taking ourselves (e.g. by saying 'I'm going to try a different method of solving this problem today. I haven't tried this before but it might be a better way. If it doesn't work out at least we'll know not to use it again!')

- talking about making mistakes while learning yourself.
- not being afraid to admit in front of students that you've got something wrong.
- encouraging them to evaluate risk-taking so it's not reckless.

Risk-taking in Music class

The following task will ask the students to take risks in the area of composition and could form part of a course of work that investigates alternative approaches to composing. Part of this investigation could involve looking at compositions by composers such as Cage, Eno and Ligeti and discovering how to interpret these alternative forms of composition.

- Divide the students into groups and, using a broad theme or concept such as 'Seasons', or 'The Sea' or 'My Car Journey', ask them to compose a piece of music. The composition should last no longer than one minute.
- When the composition is complete, each group performs their composition. Then each composition will be reflected on and evaluated by the class and comments generated can contribute to the development of each composition.

Risk-taking in language learning

Having confidence to take a risk is critical to successful language learning. You can encourage this by offering students lots of opportunities to practice speaking to each other using the target language even when they may be unsure about whether they have got it all correct. Encourage them to speak even when they haven't rehearsed or practiced what they want to say in their head first. Praise their willingness to have a go and to make an effort, and focus on correcting grammar another time.

Risk-taking in history class

Encourage students to dare to risk looking at historical events from the perspective of those who are seldom considered when history is written from the perspective of the ''winners'. Risk asking critical questions about the motivations that have shaped historical events and decisions. Ask who are the winners, who are the losers and who has the power?

Risk-taking in business studies

Within the topic of ‘Entrepreneurship’ explore the concept of *taking risks* by looking at an example of someone who demonstrates this enterprise skill e.g. JK Rowling (Writer), Steve Jobs (Apple), Bill Gates (Microsoft), Vincent Cleary (Glenisk), etc.

Divide the class into groups and either give each group an entrepreneur or get them to choose their own entrepreneur to examine. Students are given the opportunity to learn a little more about him/her through a case-study/research. In groups, students examine his/her enterprise skills, understand what makes him/her successful, identify the risks, mistakes or challenges he/she had to encounter and identify skills that they can learn from him/her. Each group presents their findings to the rest of the class.

The key message is that enterprise skills such as risk-taking are important for each person’s life and work.

Follow up: Students work individually to think and reflect about their own enterprise skills and illustrate through an example a time when they demonstrated an enterprise skill.

Some methodologies to help your students consider different perspectives

Walking Debate

1. Make two signs. Write the word 'AGREE' on one and 'DISAGREE' on the other and stick them on opposite walls.
2. Invite the students to gather in the middle of the room. Read out a statement (which will stimulate debate) and ask students to decide if they agree or disagree with the statement.
3. Students then move to the position they are happy with, which can range from strongly agree to strongly disagree, or if unsure then they will stand in the middle. Without talking to one another, ask students standing in different places to explain why they have chosen to stand in that position. Probe questions can help tease out their reasons and can also challenge them to rethink their position.
4. Offer students the chance to adjust their position after hearing some opinions.

Continue reading out more statements and, each time, ask students to position themselves along the spectrum of AGREE to DISAGREE. With practice, students can begin to see the shades of grey that exist in relation to all topics. They should also learn that it's okay to change position after informed discussion

Some prompts to help your students consider different perspectives

- You seem to be approaching this issue from the perspective of… Why have you chosen this perspective?
- Can you imagine an alternative way of seeing this issue? What would it be like?
- What would someone who disagrees say?
- Can/did anyone see this in another way? Why?
- How would other groups/types of people respond? Why? What would influence their position?

Academic controversy

This is a cooperative learning method with a very high effect size. This method is used for a topic where there are two points of view, e.g. Do prisons work? Should the cloning of human life be allowed? Was Ireland 'neutral' during World War 2?

1. Students are allocated one of the points of view. They research and prepare their arguments to support that viewpoint.
2. Students are arranged in pairs with opposing points of view, or put in groups of four containing two students with each point of view. Each side presents their position in as persuasive a manner as possible.
3. Students engage in discussion and argue their position.
4. Students swap positions and present each other's position as accurately, completely and persuasively as they can. It is best to tell students this is coming up so that they will listen carefully to the opposing view!

Get In character

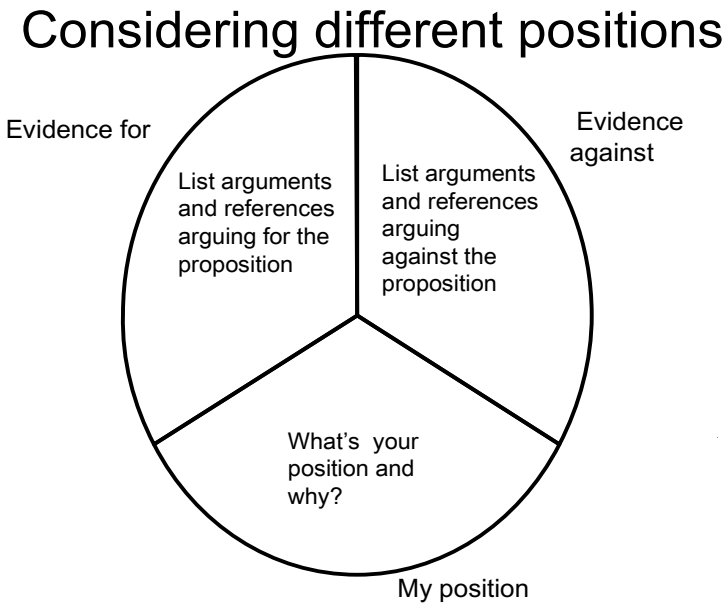
- Write a set of questions on the board.
- As students come into class, hand them character cards (such as businessman, student, politician or characters from a novel or from history).
- Ask them to answer the questions in character.

Debating from different perspectives

When an issue is being debated, assign students the perspective from which they must debate the issue. For example, in a debate about the current legal age for the consumption of alcohol, ask groups of students to consider the issue from the perspective of parents, teachers, young people, gardai, publicans, off–license owners, young offenders, youth health services.

Watch this short video which shows students coming to appreciate different perspectives through debate and academic controversy: https://vimeo.com/16241019 (6 minutes)

Graphic organisers can be used to help students set out different positions



Implementing ideas and taking action

The learning outcomes of this element of Being Creative are:

"There can still be a tendency to regard creativity as a special talent given to only the few, related particularly to the arts and somehow different from and even not demanding conventional' intelligence'. Worse still, it has all too often been associated with an 'anything goes' kind of approach where discipline, secure knowledge, skill and rigour are not necessary. Such views need to be challlenged."

Learning and Teaching Scotland

Discuss with a colleague

What small practical projects can we set students in our subject area that will enable them tease out different ideas, consider alternative ways of approaching a task and see things through to completion?

Getting started with your students –

Practical classroom ideas

- Ask students to use different ways of solving a mathematical problem and then evaluate. (Which one is most accurate? Quicker?)

- Test ideas against a set of criteria: e.g. having provided students with criteria for evaluating reliable sources of information on the internet, ask them to evaluate the reliability of a list of sites you give them.

- Discuss with your students the criteria for an effective essay-type answer to a particular question and then present them with some exemplars and ask them to evaluate them using the agreed criteria.

- Using the format of the popular television programme, **Dragons Den**, students could be asked to explore solutions to problems and then 'sell' their solutions to others.

- Encourage students to use prior knowledge to predict the outcome of scientific experiments. In **English** literature, students could be asked to predict the next chapter or ending of a novel. In **languages**, students could be asked to explore patterns in verbs and predict the verb endings. In **Mathematics** students could predict the probability of an event prior to calculating it.

Your subject through the camera lens

Students are going to test this method of capturing and presenting what they have been learning in your class. They will then evaluate its effectiveness.

Time required: Two class periods

What's needed: The class will need one laptop with an SD card reader (this is the data-card beside the battery in a digital camera) and a data-projector. Most laptops have a slot in which this can be inserted. Students can bring in their own cameras (one per group of four – six students). They could also use the cameras on their smart phones, if you have the means of collecting their photographs, possibly by class email.

1. Divide students into groups of four to six.

2. Have each group brainstorm **one** aspect of the subject they are learning, that they will capture around the school in ten minutes, in ten photographs. Don't worry if this does not look obvious – the challenge is, to the students. So encourage them to creatively interpret the task.

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3. The group will prepare a storyboard **before** they leave the classroom. Allow plenty of time for this and try not to intervene! If you must, give the students examples from other subject areas e.g. angles in maths, flora in biology, signage in Irish.

Remember the learning outcome you hope the student will achieve is “I can test out ideas”.

Topic::
Photo 1
Photo 2
Photo 3
Photo 4
Photo 5
Photo 6
Photo 7
Photo 8
Photo 9
Photo 10

4. Suggest that the students go around the school taking photographs for ten minutes.

5. On return, collect the storyboard from the students.

6. Then (or the next day) each group displays their photos to the class. This may have to be prepared using an electronic presentation or similar (overnight) or displayed via a cable/card-reader from the camera onto the class-data projector.

7. The class (not the teacher) asks questions of the following type of each group as they show each photo....

- What aspect of (your subject) were you representing?
- How does the picture show it?
- Was it hard to capture this idea?

Through questioning, the learning outcome you hope the students will achieve is "...evaluating different ideas and actions".

8. After all the groups have presented, they reconvene and choose which five photos best captured their topic.

They must say ***why they choose each one*** (...evaluating ideas and actions...)

Finally each group is asked to reflect

- is there anything else you could have done?
- could you improve on what you have done?
- which was the best question that was asked?
- which question was the hardest?

Encouraging things for teachers to say to students to help them think things through
That's an interesting idea *Tell me about it* *How did you reach that conclusion?* *Have you thought of other alternatives?* *You decide which option to take* *Try it out for yourself first* *I'm sure you can get it right* *Don't give up too quickly*

Adapted from ***Creativity in Education,*** Learning and Teaching Scotland

The learning outcome, *I can see things through to completion,* implies that there are various phases to a task or a project.

Consider the subjects that currently involve a creative project e.g. Home Economics, Materials Technology, Art, CSPE, etc.

- What are the *phases* involved in a creative project in a subject you are familiar with?

Consider your own subject

- How can you as a teacher help students see the steps involved in completing any creative task? How can you help your students to work autonomously to see an essay, project or other creative task through to the end?

- Consider the *phases* involved in a project you will organise.
- How will you help the students to prepare for the various phases and evaluate their progress?

Could you ask your students to take photographs to tell the story of the process involved in a project or an extended piece of work and animate it using a simple animation package? (See also the ideas contained in the ***Stimulating Creativity using Digital Technology*** part of this booklet)

Most Windows based computers have Windows Live Movie Maker installed on them. You can also use a free application like **GoAnimate** or **Animoto**. Many students will be familiar with simple animation applications – don't forget to ask them!

Animations created by the students may well give you the teacher and the other students in the class an insight into how others see the order of things in a way that you did not see.

Encouraging and helping students to manage themselves and their learning, to become more self-directed and to actively use self-assessment and reflection, leads to greater persistence on their part. They will be self-motivated to repeat an exercise in order to improve or to see a task through to completion.

Sample reflection exercise following a team task:

- What were the steps taken by the team in the process?
- Did the target audience influence what information was provided and how it was presented?
- How did you decide what information to include and what to leave out?
- How did the criteria for success shared by the teacher influence decisions made?
- What evidence was there that you worked well as a team?
- What difficulties did you meet? How were these resolved?
- What would you do differently next time?
- What was the most enjoyable part of the experience?
- Complete this sentence: Because of my experience working on this task I have learned……

- Rate your own effort to work as an active member of the team by placing yourself on the continuum line below

I contributed a lot _____ I contributed a little

Movie

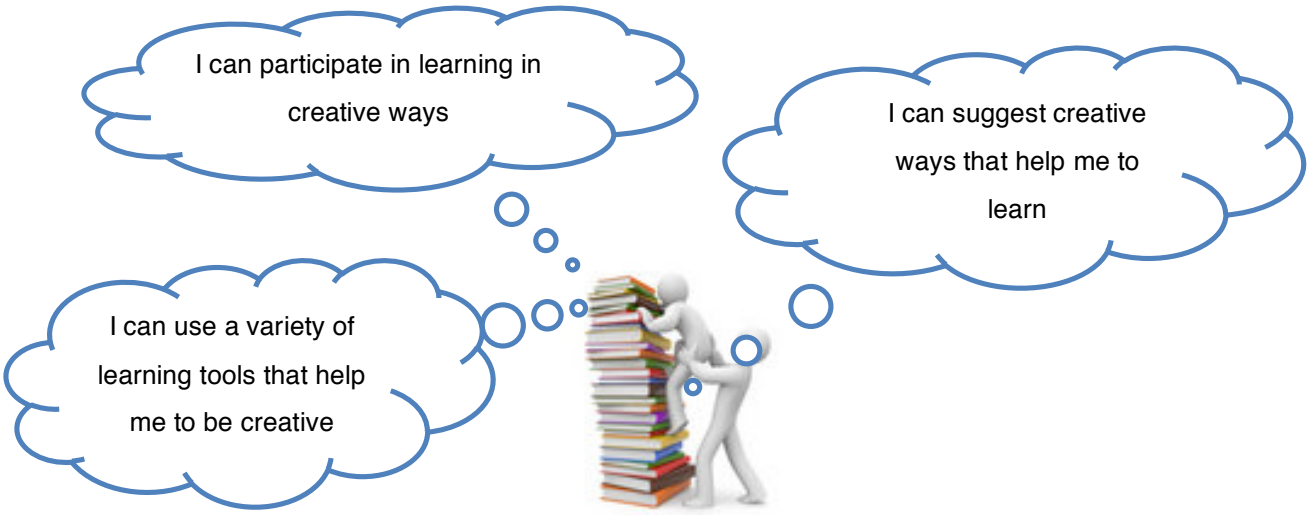
The video at the link below (3 mins:20 secs) is from the United Kingdom and the nQuire project. It demonstrates how science students used inquiry based learning to work through stages of a project to completion. Ideas are transferrable to other subject areas. www.youtube.com/watch?v=n5mSeXp1LNs

Another interesting video can be found at: http://www.youtube.com/watch?v=n2t5oRwbgMQ.

This video was made by Portmarnock Community School student, Emily Kremers, with her art-teacher Ms.Tynan. It attempts to outline the *phases* in her Junior Certificate Art work.

Learning creatively

The learning outcomes of this element are:



Getting started with your students – practical classroom ideas

Odd one out Give students a group of objects or images on cards (or on slideshow). Ask them to pick the odd one out and why. Could there be alternative correct answers?

Pose the question 'What if there were no more…?'

"…..fossil fuels".

"….. plants in the world".

"….. historians".

"….. mobile phones".

Ask students to share 5 things you know about…

".... glaciation".

"….triangles".

"…. saving money".

"…. the Easter Rising".

"…. living things".

"…. Islam".

Get students to create a **blog** to capture key concepts (See example from people in history here)

Click on the link below to see how student in Navan use Glogster, in a French class. This might also be used in other subjects. http://www.youtube.com/watch?v=o2236SBkPeY.

Visual/auditory representations of a poem/prose

Students could use the imagery of a poem to create a visual representation such as a collage. In this way they are using an imaginative way of expressing their feelings, thoughts and ideas. Alternatively students could create a soundtrack to a poem/play/novel and select music to represent various emotions related to sections of the text/scenes. **Animoto** (free to download) allows students create videos using photos, text, and video clips and is very simple to use.

Hot seating

Students take it in turns to represent characters from a novel and answer their peers' questions. It is an alternative way for students to examine, explore a character or a topic

Instead of always assuming the role of a character, students could pretend to be….

...a geometrical shape or type of angle.

…a compound or part of the body.

…an historical building.

…a glacial or river feature.

…a tool used in materials technology.

…a famous renaissance painter.

Flipped classroom – Turn a traditional classroom on its head!

The flipped classroom approach is a teaching and learning strategy wherein homework and classwork swap places so that students learn a topic at home via a pre-recorded video or audio files or via a text and then class-time is used not for teaching the topic but to discuss and apply their learning. So students carry out hands-on exercises in class allowing individual support from the teacher while in class.

http://www.knewton.com/flipped-classroom/

http://www.flippedclassroom.com/

Screening Shorts is a major new resource developed by Creative Scotland and Education Scotland to help teachers use short films within teaching and learning. .

On this website, you will find a collection of superb downloadable films (fiction, animation and factual) suitable for primary and post primary school audiences. Log in at this link: http://www.screeningshorts.org.uk

In History: *"Close your eyes and imagine. Go back in time before you were born and visualise yourself living in Ancient Rome . Imagine. What are you seeing? What are you doing? How are you feeling? Tell your friend. Or record yourself talking about it on a podcast"*

In English: *"Imagine you are a character in the novel you are reading. What are you wearing? What are you doing? How are you thinking? How are you feeling?"*

In Maths: *"Imagine you are out walking on a flat road. You then come to a hill and start to walk up it. The hill then gets steeper. When you get to the top of the hill you start to walk down on the other side. You are trying not to slip as you maintain your grip on the steep slope. What would a graph of your journey look like?"* (Idea for introducing concept of slope and gradient)

In Science: *"Imagine you are a red blood cell. Think about your journey around the body, what helps you get pumped around? Where do you go to pick up "fuel" (oxygen)? Where do you dump waste? Who will you interact with? What are the names of the roads or vessels you travel along?"*

Ideas for creative cross-curricular projects

- Organise a social justice week incorporating music, mathematics, art, religion, etc.
- Organise peer teaching between classes. Collaborate with a colleague who has your senior students while you have juniors. Look at your timetables. Swop half of your students. Ask students from older classes to teach younger students.
- Are you organising a Geography field trip? Get the maths teachers involved! Graphs for a statistical survey could be done in Maths lessons. Maths teachers are always looking for "raw data". CSPE and Maths teachers could also work collaboratively when studying election results or data on world consumption patterns, development statistics, etc.
- Would your History projects lend themselves to cooperation with the Art department? Look at ancient number systems in the maths class; design historical buildings using Pythagoras (art/maths or even include technology); look at the maths in famous buildings (Mosaics in the Alhambra Palace, Spain). http://www.alhambra-patronato.es/ria/bitstream/handle/10514/56/Magic geometry mosaics in the Alhambra Miroslav Lovric.pdf?sequence=2
- Interested in connecting Music to Maths, Science and Art? www.philtulga.com/resources.html

The research

Creative learning raises standards: "*The school now requires departments to produce at least one module taught in a way explicitly designed to promote enquiry, independence, cross-curricular thinking and self-assessment against challenging standards… The percentage of students gaining five or more A to C grades at GCSE increased from 22% in 2005 to 53% in 2008*". http://www.ofsted.gov.uk/resources/learning-creative-approaches-raise-standards

Education Scotland – Transforming Lives through Learning A collaborative space for teachers to inform, inspire and encourage debate about creativity.

http://www.educationscotland.gov.uk/learningteachingandassessment/approaches/creativity/supportmaterials/resources/index.asp

Stimulating creativity using digital technology

The learning outcomes of this element of Being Creative are:

Getting started with your students – practical classroom ideas

It is very important that the students can physically interact and engage with the technology and that they are not merely sitting watching or listening to a digital version of the textbook.

At the beginning of a class

You can use the talents and expertise of the students by appointing a technical team for every class group. These specialists will know and be familiar with your digital requirements,

so that at the beginning of every class your equipment can be set up and ready to go. This allows you time to speak to the class and explain the learning outcomes for the class.

Introducing a new topic

At the beginning of the class, place a single image at the centre of a single powerpoint slide and project it on to a whiteboard. The image should reflect the content for the new topic, for example, an image of the New York Stock exchange would introduce the Business class to stock trading. For about five minutes, invite students up to write (single words or sentences) anything they know about the image or anything to do with the image. Students should then note all the contributions.

At the end of the class, repeat the exercise and note the differences. If there is not enough time at the end, this exercise can be given as homework. This would offer the opportunity to use the internet for further research.

Investigating themes and emotions

Studying poetry or prose can often require the students to investigate and discuss themes and emotions relating to a piece of poetry or literature. Using a digital camera, stills or video, can help the class to explore these areas. Using any form of digital camera, stills, video, iPhone, iPad or laptop camera, the students are invited to capture and share an image which they think best reflects the theme or emotions of the piece.

These images can be displayed in the class for the duration of the time that it takes to complete the poem or piece of literature.

Storybird: http://storybird.com: creating online stories with exciting artwork

As a creative alternative to summaries or an additional activity to important key words, Storybird can produce an inspiring and fun piece to get a class reflecting on what they have learned.

It is also a really useful tool for creative writing exercises, plot creation or simply getting students thinking creatively.

Teachers can sign a full class up as members of a **storybird** assignment class. Students can work collaboratively, inviting another student to join their activity and so each student takes turns in creating a page of the story.

Links with sister schools or other schools in the community can be made by inviting classes from other schools to join the activity. All invitations have to be approved by the class teacher. Tutorial videos are easy to follow : http://storybird.com/tour/

Puppet Pals – free app

Students will be very familiar with Puppet Pals from Youtube creations of Harry Potter. Teachers are using Puppet Pals to get students working and thinking creatively..

Link the context with your subject by suggesting the students create a dialogue about a chosen topic. (This is particularly appealing to students who are hesitant to stand in front of a class to act out a scene.) For example, a customer returning a faulty product could apply some of the knowledge gained in Business Studies, Conflict Resolution, Drama Studies, Speech making. Or the storyline/timeline of a piece of prose or a poem could be recreated using Puppet Pals. Photos of famous people or those from history can be imported as characters. Both free and commercial versions allow users to easily create animations. There are school accounts and subscription depends on the number of students using it.

Creating an audio visual blog

Watch how students in Navan are using Glogster to create audio visual learning blogs in French class. This could be adapted for use in lots of subjects.

https://www.youtube.com/watch?v=o2236SBkPeY

Video conferencing

Video conferencing can be a very expensive activity for a second level school, but with the arrival of the iPad and Skype, video conferencing has become very

accessible. By purchasing an inexpensive 30 pin Apple Dock to VGA connector, the images on the iPad can be viewed by the entire class through the regular class projector.

Regardless of what subject you are teaching, with the combination of Skype and iPad, you can connect to experts in industry, other class groups, and even other groups or individuals around the world.

A good example of the use of this technology involved two history teachers, one in Ireland and one in the United States. Both class groups came together for twenty minutes to discuss the American Presidential election as it was happening. The same two groups set up a series of discussions on the Great Irish Famine, as viewed from the Irish perspective, and also from the American perspective.

ShowMe interactive whiteboard

Movie

http://www.youtube.com/watch?v=Lj7lqQzkHpA

This free teacher's iPad app is very useful for visually expressing class content. When connected to the class projector system, it can bring to life very difficult subject content in a very visual and creative way. The real benefit of this app is that it can be directed at a specific class group exclusively and it can be saved for future revision, study or self learning. These whiteboard tutorials can be of great value to the students who have missed various classes. A further benefit of the app is that teachers of different subjects share tutorials, which can be downloaded very easily. It also has great potential in terms of students designing their own tutorials which can then be shared with fellow students.

Video camera

Movie

With a lot of imagination, a standard digital video camera, and a little help from software such as iMovies or Windows Movie Maker, the students can be guided towards producing short instructional videos, as well as creatively developing a script. The link below shows a short video produced by students on the topic of Safety in The Science Lab. http://www.youtube.com/watch?v=06vE_Q5C9rw.

Start by introducing the topic to the class, and they then decide on the important elements to be included in the presentation.

Next, they write the script and running order for the recording.

They then record the footage, including everyone in the class in the process.

Depending on the standards and ability of the students, either the teacher or a small group of the students themselves can edit the piece. The video can then be shared with all of the class, or even the whole school, through the Moodle platform or the school website.

Sound effects

Inventive use of sound effects can create atmosphere in a class and can stimulate creative reflection. Sound effects can be particularly effective when teaching or studying poetry. Thousands of sound effects are easily downloadable from the internet, but it is even better to encourage the students to record their own effects - using mobile phones, laptops and iPads.

Audacity is a free downloadable software package which allows you to record and easily edit audio files. It also allows you to export the files in formats that will suit nearly all PCs and laptops.

http://audacity.sourceforge.net/

Audacity is an open source (free to all) software program that is used to edit, record or listen to digital audio files. You can also download it by visiting *http://audacity.sourceforge.net*. To save a file in an mp3 format, you will need the LAME encoder. This is already downloaded on school computers. To download the encoder onto your home computer, go to *http://audacity.sourceforge.net/download/windows*.

For teachers of **Irish** the poem, *An tEarrach Thiar* by Máirtín Ó Direáin, offers huge opportunities to use sound effects. Each verse of the poem can be summarised by simply using sound effects e.g. the sound of the oars in a currach, the sound of the man cleaning the dirt from his spade, etc.

Language teachers will find Audacity very helpful when examining oral skills in the class. With Audacity, a simple pressing of the record button will record each student on your laptop and file away the sound file for future listening and assessment.

VIDEO POST PRODUCTION with **WINDOWS MOVIE MAKER**

http://windows.microsoft.com/en-IE/windows/get-movie-maker-download

Movie Maker is free downloadable software that enables you to edit and publish recorded video material. It allows teachers and students to fine tune and focus the message of the material recorded and also present it in a very professional manner. It is very basic editing software but this makes it very user friendly.

Import and edit slide shows and videos

Quickly add photos and footage from your PC or camera into Movie Maker. Then fine tune your movie just the way you want it. You can move things around, speed it up or slow it down - it's up to you.

Edit the soundtrack and add a theme

Enhance your movie with audio and a theme. Movie Maker adds transitions and effects automatically so your movie looks polished and professional. You can also add titles to your video.

Share your movie online

Once your movie is ready, share it online on Facebook, YouTube or other social networking and video sharing sites. Send a link to your movie in an email to students and other teachers.

Making it my own

Ask yourself the following questions:

- Where is creativity evident in the school I teach in right now, across *all* years, *all* subjects and *all* extracurricular activities?
- How is creativity on ***display*** on the school walls? Have you ways of *displaying* student creativity?
- How is creativity ***heard*** in the school in which you teach?
- Are ***ordinary processes*** expressed in creative ways?

Look at the subject rooms that "*make things*"

How is that classroom space different to other classroom space? What can the Art-room, Music-room, Home-economics room teach us about creating spaces conducive to creativity?

- Could you change your classroom space?
- Could you move some of your teaching outside the classroom?
- Could you move some of your classroom space online?

Next steps

1. Review and list all the ideas in this resource or those you gathered whilst watching the short videos.

2. Identify one idea or a manageable number of ideas that you feel you could develop and which would improve your students' learning in a significant way.

3. Plan how you will develop those aspects with identified classes over a period of time. You might even consider how you might establish baselines for pupils' learning which will allow you to judge impact and learning gain.

4. Over the next month, keep a diary to record changes in teaching, learning and assessment.

5. Record also any benefits you notice for students and for yourself. Share your reflections with appropriate colleagues.

Further reading/searches

Go to www.juniorcycle.ie and look at some of the other Key Skills toolkits for additional ideas on creative teaching and learning methodologies.

Best and Thomas (2007), **The Creative Teaching and Learning Toolkit.** Continuum International Publishing Group Ltd.

Collard, Paul (2012). In this keynote speech from the Scottish Learning Festival 2012 Paul Collard, chief executive of Creativity, Culture and Education, draws on his experience of observing, designing and delivering programmes around the world to define the features of an effective approach to creative education. http://www.educationscotland.gov.uk/video/s/video_tcm4732792.asp?strReferringChannel=learningteachingandassessment&strReferringPageID=tcm:4-611487-64&class=l4+d137247.

Egan, K. (2005), **An Imaginative Approach to Teaching**. San Francisco, CA: Jossey-Bass.

Ginnis, P. (2001), **The Teacher's Toolkit, Raise Classroom Achievement with Strategies for Every Learner.** Crown House Publishing Limited.

Hamza M.K.; Griffith K.G. (2006), **Fostering Problem Solving & Creative Thinking in the Classroom: Cultivating a Creative Mind!** National Forum Of Applied Educational Research Journal – Electronic, Volume 19, Number 3.

Lucas, B., G. Claxton and E. Spencer (2013), "***Progression in Student Creativity in School: First Steps Towards New Forms of Formative Assessments***", *OECD Education Working Papers*, No. 86, OECD Publishing.
http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=EDU/WKP%282013%291&docLanguage=En

Maker CJ (1982), **Teaching models in the education of the gifted.** Austin: Pro-Ed

Notre Dame High School, Glasgow. ***Planning for a creative curriculum: a case study to support secondary schools in adapting current curriculum structures to deliver a more flexible and creative curriculum.***
http://www.educationscotland.gov.uk/sharingpractice/o/oneschoolsapproachtoacreativecurriculum/introduction.asp.

Teaching and Learning Scotland (2001), ***Creativity in Education*** (A discussion paper).

VanGundy, A. (2004), **101 Activities for Teaching Creativity and Problem-Solving***:* Pfeiffer.

Promoting Creativity in Education, Overview of Key National Policy Developments across the UK . The Scottish Executive (2006).
http://www.educationscotland.gov.uk/Images/hmiepcie_tcm4-712760.pdf