Design Thinking in Practice

Ready for Work Playground Development Project

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Thank you for joining us today

Please have your microphone on mute and your camera off.

Please use the chat function or raise the hand if you would like to ask questions or share any comments.

This session will be recorded

- Intro
- Creative Learning Programme in Stirling
- Briefly explore creativity and design thinking are why we feel they are important within education
- Ready for Work programme and the Design Thinking Project
Creative Learning Programme

Stirling
Creativity Approaches
Creative Thinking
Creative Process
Creative Learning

Why?
About the Creative Learning Programme

Influenced by:

- Research and practice exploring innovative and creative learning pedagogies
- National and international research and inquiry (Education Scotland, Creative Scotland, OECD, PISA, NESTA, CCE, HundrED etc)
- What we see happening in schools and nurseries
- Consultation and learning through our Creative Space - educators, practitioners and partners such as Hidden Giants, University of Stirling etc
- Stirling's wider priorities - future learning / future industries / future work
- Learning Opportunities and Festivals ...Creative Bravery Festival, Imagine If, Firestarter, Daydream Believers etc
- ...and continues to support development in arts and creative industries
- ...work with freelance practitioners and organisations to deliver opportunities
National Creative Learning Networks - Aims

To develop a shared language and understanding of creativity and its role across every aspect of learning, teaching and continuous improvement

To raise awareness of creativity and its practical application as a higher order thinking skill and as a cross-cutting theme across Curriculum for Excellence

To raise levels and standards of creativity in learning and teaching in both formal and community learning contexts

To provide leadership on national priorities in creativity in learning for local and national partners

To sustain strategic partnerships between the education, community and cultural sectors locally and nationally

To stimulate creativity in our leaders, practitioners and learners.
Stirling - Future Learning / Future City

Skills - 5 C’s

- Creativity
- Collaboration
- Critical Thinking
- Communication
- Curiosity

Values, aptitudes etc
Why?

Design Thinking
Creativity
Why?

A conversation with Sir Ken Robinson

Why is creativity important in education?
**Top 10 skills**

**in 2020**
1. Complex Problem Solving
2. Critical Thinking
3. Creativity
4. People Management
5. Coordinating with Others
6. Emotional Intelligence
7. Judgment and Decision Making
8. Service Orientation
9. Negotiation
10. Cognitive Flexibility

**in 2015**
1. Complex Problem Solving
2. Coordinating with Others
3. People Management
4. Critical Thinking
5. Negotiation
6. Quality Control
7. Service Orientation
8. Judgment and Decision Making
9. Active Listening
10. Creativity

Source: Future of Jobs Report, World Economic Forum

Why?
50% of all employees will need reskilling by 2025, as adoption of technology increases.

Critical thinking and problem-solving top the list of skills employers believe will grow in prominence in the next five years.

Increase in need of skills in self-management such as active learning, resilience, stress tolerance and flexibility.

How do we nurture these skills in students?
Top skills and skills groups rising into prominence by 2025

OECD: Skills for 2030

- Social and emotional skills can be equally, and in some cases even more, as important as cognitive skills in becoming a responsible citizen.
- Cognitive and meta-cognitive skills, which include critical thinking, creative thinking, learning-to-learn and self-regulation.
- Social and emotional skills, which include empathy, self-efficacy, responsibility and collaboration.
- Practical and physical skills, which include using new information and communication technology devices.
Andreas Schleicher, Director of Education and Learning (OECD)
Children entering school need to learn to value common prosperity, sustainability and well-being. They will need to be responsible and empowered, placing collaboration above division and competition, and sustainability above short-term gain.

Is this something the Scottish education system encourages and nurtures and how do we achieve this?
What?

Creativity
Design Thinking
Curiosity
Open Mindedness
Imagination
Problem Solving
Creativity, entrepreneurship and innovation is increasingly embedded across learning. Children and young people benefit from learning and teaching through partnerships with education, employers, creative industries and cultural sectors.

Learners are confident and ambitious with high levels of self-esteem. They are motivated to explore and challenge assumptions.

Children and young people take ownership of their own learning and thinking. They are imaginative, open minded, confident risk-takers, and appreciate issues from different perspectives.

They can ask questions, make connections across disciplines, envisage what might be possible and not possible, explore ideas, identify problems and seek and justify solutions.
The Centre for Real World Learning’s five dimensional model for creativity in schools, was developed with the OECD and is used by CCE, RSA and other organisations promoting creativity. It represents the Creative Habits of the Mind seen in creative practice.

It is widely used across the world from Australia to Chile, Norway to Thailand, the Netherlands and England. In Wales, more than 500 schools use the five habits model to explore ways of embedding creativity in schools.
Why do creative learning opportunities:

- Engage children who might struggle to engage in learning and thrive?
- Enable rich questioning?
- Often lead to deeper learning about a topic/subject?
- Enable children to have a voice and are child-led?
- Promote individuality?
- Enable the move from known to unknown outcomes?
Why do arts / creative / problems based projects often:

- Engage children who might struggle to engage in learning and thrive?
- Enable rich questioning?
- Often lead to deeper learning about a topic / subject?
- Enable children to have a voice and are child led?
- Promote individuality?
- Enable the move from known to unknown outcomes?
Creative learning is almost always framed by engaging questions which have no one right answer.

There is space for activities that are curious, authentic, extended in length, sometimes beyond school, collaborative and reflective.

There is opportunity for play & experimentation.

There is opportunity for generative thought, where ideas are greeted openly.
There is opportunity for critical reflection in a supportive environment.

There is respect for difference and the creativity of others.

Creative processes are visible and valued.

Students are actively engaged, as co-designers.

A range of assessment practices within teaching are integrated.

Space is left for the unexpected.

Bill Lucas (CRL)
What, Why, Who, When, Where, How?
Empathy: Learn and understand (through provocation)

Understand the problem, asking good questions - what, why, how, when, where, who...(curiosity, inquiry, collaborate)

Research: Look and Ask

Read, talk, speak, ponder, understand, explore - deepen thinking and learning....(curiosity, inquiry, collaborate, communicate)
Creative Process

Why Design Thinking?

Support / Extend / Challenge
Curiosity / Inquiry

Ideate: Imagine

Create new ideas, explore, divergent thinking, applying learning, play... (curiosity, creativity problem solving, tinkering, divergent thinking)

Reflect: Consider ideas

WWW / EBI...(critical thinking, communicate, convergent thinking)

Prototype and Test

Make, build, draw, mindmap
Creative Process

Why Design Thinking in Learning?

Allans Primary Maker Space
Creative Process

Why Design Thinking?

- Offers a framework that everyone can use to support, nurture and define creativity and creative practice.
- Promotes creativity, collaboration, critical thinking, communication, curiosity, empathy, play, turn taking, problem solving, listening, empathy, imagination, innovation
- Helps us to move from known to unknown outcomes. Iterative learning.
- Supports project based learning - joining the dots between ‘subjects’.
- Deepens learning
● We learn empathy by solving problems for other people
● We learn about lots of different things while solving problems
● We get to be creative all week
● We get to see how other children in our school have solved the problem and help them to make it even better
● I feel proud of what we make during Maker Space week
● We get to use our imagination and create something new
● It’s so much fun
Ready for Work Programme

Stirling
Phase 1: Induction (August - September)

The first 6 weeks of the course is our Induction phase.

You will take part in a variety of activities designed to build your transferrable skills.

This part of the course will let you get to know the Ready for Work team and the rest of the group.

Some of them might take you out of your comfort zone!
After the Induction phase, you will be working in a variety of settings. You will follow the same structure each week throughout Phase 2 and Phase 3 of the programme:

- **Monday**: The Ready for Work Hub (above Stirling Bus Station)
- **Tuesday**: Forth Valley Campus (Stirling Campus)
- **Wednesday**: The Ready for Work Hub (above Stirling Bus Station)
- **Thursday**: Volunteering in a variety of settings
- **Friday**: Work Placement
Forth Valley College (Tuesdays)

ART/Digital Media  
Cooking  
Enterprise

Volunteering (Thursdays)

Work Placement (Fridays)

Work placement is organised into blocks which allow you to experience a variety of situations and build your skills.

Where you go on placement depends on your interests, commitment and level of skills.

“...it was an absolute pleasure to have a polite, hardworking young man who fitted in so well. It was a great and pleasant surprise to find him in the laundry room this morning, showing his apron in preparation for his shift today.”

Teresa Wilson, Catering Manager.
Phase 2: Project Based Learning (October - Christmas)

During this phase, you will work on English, Literacy, Numeracy and Applications of Maths.

This will allow you to attain SQA awards at either National 4 or 5.

Much of our learning is through activities and projects.

Last year, we were approached by Allan’s Primary to make more creative space of their playground.

The consultation, research and planning involved in this project allowed students to achieve their SQA awards.

...and continued into phase 3

Phase 3: Reflection, Employability & Applications (January - June)

The main focus of this section of the course is an SQA award called Developing Essential Skills.

This allows us to look back on the work we have done throughout the year and reflect on what skills we have developed.

The outcomes for this award help you to write applications and prepare for interviews.

"The course was a great boost to my confidence and improved my thinking to a very effective way. I feel well prepared for a job and would not have got that job if it wasn't for the great help of the team. Thank you very much." — Ready for Work participant, 2019.
Playground Development Project

Ready for Work Group and Allans Primary School Playground Committee

Stirling Creative Learning Programme
**Brief:** Allans Primary School is situated in the historic centre of Stirling and was built in 1889. 170 children attend the school at present from P1-P7. There is limited space outside and the playground at the front and back is concrete. The children and team at Allans Primary School would like to develop the playground. They would like to commission you to meet with the Allans Primary School Playground Committee (P1-P7) to find out about their playground, how it is used and their hopes for its development. After this constitution they would like you to develop some ideas for their playground and present those ideas to them in February 2020.

Use **What, Why, Where, When, Who and How** and Design Thinking to gain a thorough understanding of the problem and to come up with new solutions.
Aims:

Recognising learning can be different and enjoyable.

Recognising and nurturing the skills, values and aptitudes that they have and those that they would like to develop / need to develop.

Applying learning now to their life experience and their future hopes for work and life.

Supporting numeracy and literacy development as part of project based learning.

Developing trust and confidence in themselves and others, feeling safe and supported, developing resilience and self regulation.

Authentic and real life learning.
Ready for Work Programme

Developing Essential Skills
SCQF level 4

Designing
Understanding
Numeracy
Research
Communication
Focus
Analysis
Teams Skills

Creativity
Problem Solving
Perspective
Social Awareness
Empathy
Integrity
Literacy
Leadership.....
Creative Learning Programme

Key Skills, Values and Aptitudes

Creativity
Collaboration
Curiosity
Critical Thinking
Open Mindedness
Persistence
Agency
Imagination

Learning to Learn
Empathy
Resilience
Integrity
Self Regulation
Creative Thinking
Problem Solving...
Allans Primary School Playground Project
Empathy and Research
Empathy and Research
Research
Reflect
Share Prototype Ideas
We have been asked to come up with new things to put in Allans Primary School playground, because it’s really small and there is not very much to do in it and boring for the kids. The playground is made out of concrete. It’s at the top of the town.

We got asked to help by Clare the Creative Learning Officer for Stirling Council. She was asked by Lyndsey Howland, the headteacher at Allans Primary School and also the playground committee. The playground committee are a group of kids who look after the playground and come up with ways to improve it.

Clare taught us about the human centred design process and about asking good questions. They are why, who, where what, how, when. Then we went to Allans Primary School and asked the playground committee and got their opinion on what they would like to see happen to the playground. They asked for stuff like reading spaces, sandpits and racing tracks.

We had to go up to Allans Primary School to measure the space of the playground to get a rough idea of how big the space was. We split up into two teams and one team done the front and one the back. We had to do it twice because we did it wrong the first time. We were asked to make a phone call to a school that we had chosen to go and look around their playground to see how they were using their space to see if any of the ideas would look good at Allans Primary School.

What we are planning to do now is a scale drawing of Allans Primary to see where we could put the things and make sure they fit. And it’s also to do with our numeracy. We are going to get help with the scale drawings by Victoria (Maths Teacher).

We are going to collate our ideas. We all took responsibility for a different bit. I am responsible for a stage with storage space under the stage. After we make a presentation we are going to go to Allans Primary School and let the children vote on which one they think will be best. We are hoping to carry out some of the ideas we have if Allans will let us.

By William
Impact of the project on the young people involved
How might we do this?