

Tooling up for the 21st Century: cross-curricular learning for Transition Year



**MUINÍN
CATALYST
SUSTAINABLE
STEAM**

MUINÍN CATALYST SUSTAINABLE STEAM

INTRODUCTION

01

We utilise creative strategies and tactics grounded in place to provide deep learning through tangible, practical evidence-based learning activities. By developing and harnessing learners' and educators' creativity for innovation and transferable innovative thinking, we facilitate 'Tooling education up for the 21st Century'.

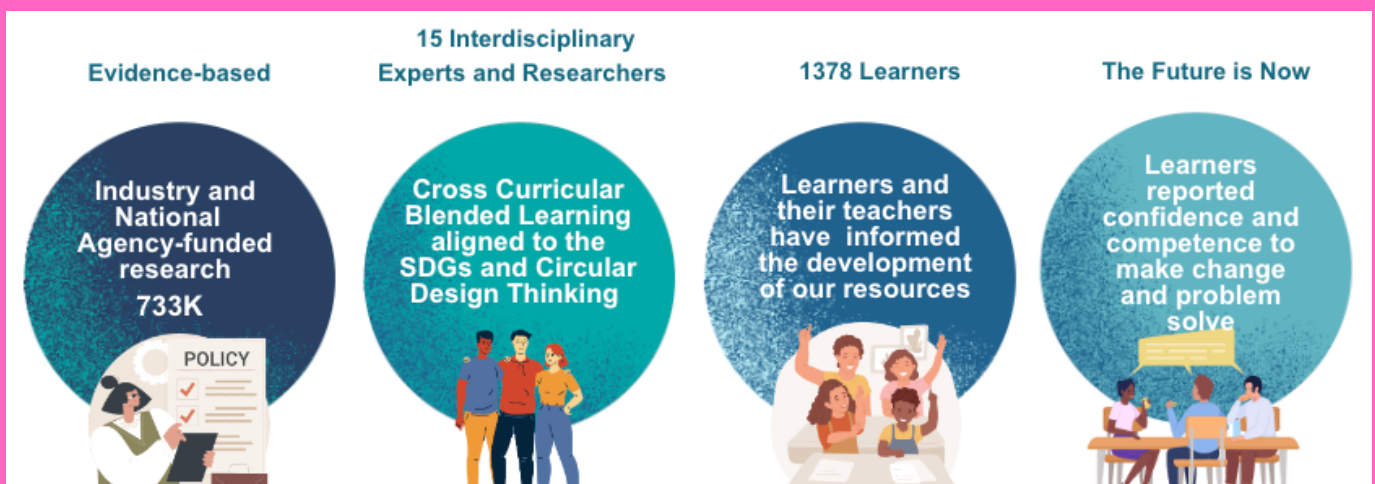
Our aim is to contribute to an educational system that offers young people the space to be themselves and included in any aspect of society, they chose to be part of.

Our programmes integrate inclusive practices, beyond just human perspectives, we encourage learners to recognise diversity and use design to encourage and support it.



MCSS KEY ELEMENTS

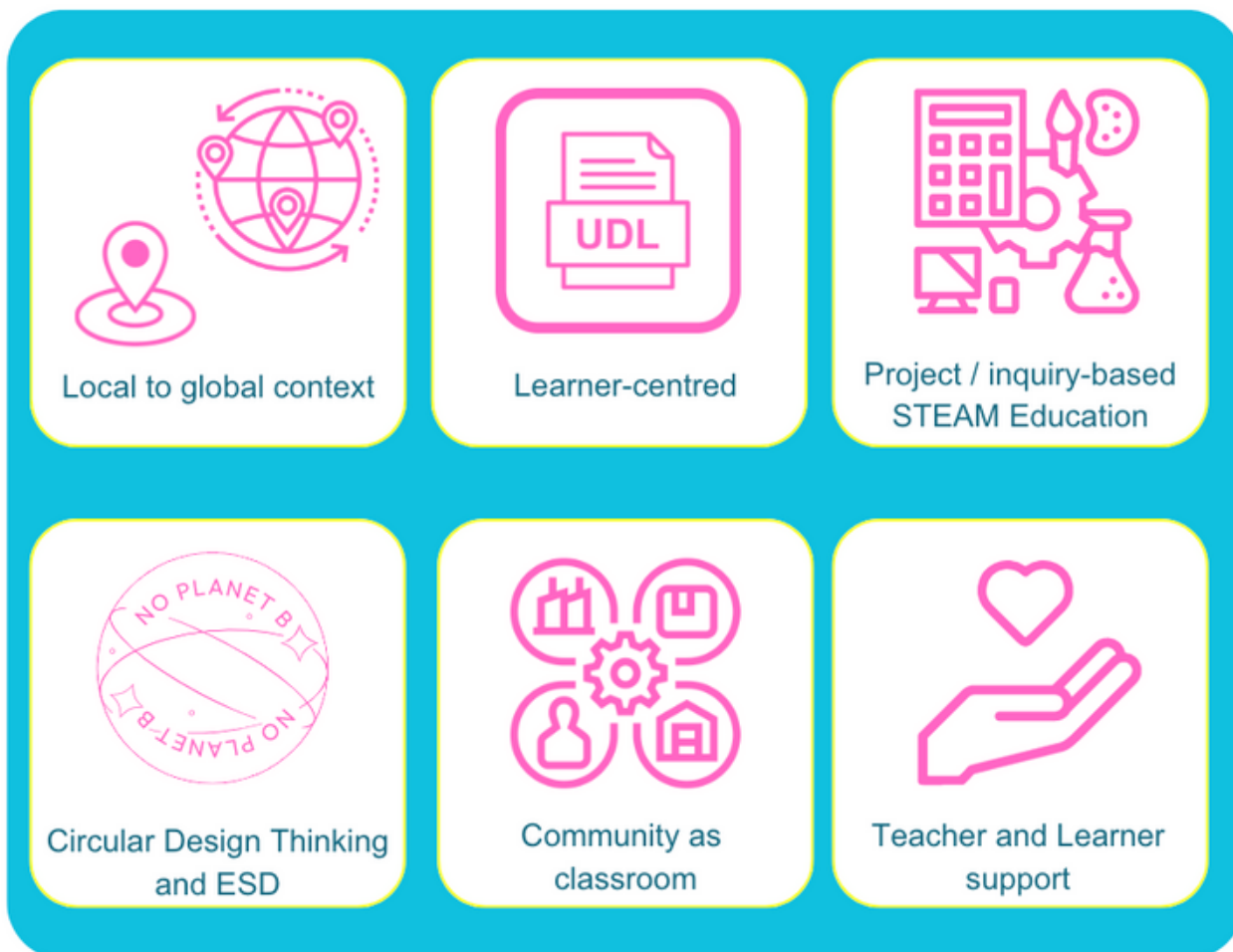
- FREE to all post-primary schools
- Delivers cross-curricular UDL
- Aligned to the Sustainable Development Goals, Earth Charter
- Builds upon Junior Cycle SOLs
- Act as primers for upcoming changes to the Senior Cycle
- Are easily scalable to other age-appropriate levels incl. LCA and LCYP
- Support Green School flag applications
- Developed through Environmental Protection Agency & Industry funding
- Tried and tested over 4 years of research with teachers and learners



PROGRAMME INTRODUCTION

Muinín Catalyst Sustainable STEAM is an exciting new project for 16 post primary schools in the Munster region 2022 - 2024.

It is fully funded by the Science Foundation Ireland and the Department of Education so FREE to all participating schools.



- UDL AND INCLUSIVE DESIGN
- EDUCATION FOR SUSTAINABLE DEVELOPMENT
- PROJECT-BASED LEARNING
- PLACE-BASED STEAM
- TIME COMMITMENT - ADAPTABLE LESSONS 40 MINS, 1 HR, 1 HR 20 MINS
- FLEXIBLE PROGRAMMES
- TEACHING AND LEARNING SUPPORT
- EASILY SCAFFOLDED FOR LCA, LCVP. JC / SC AND OTHER AGES

PROGRAMME BENEFITS

FOR STUDENTS

- Supports and encourages self-directed learning, critical thinking, collaboration, communication, and research skills
- Develops Design Thinking skills
- Develops active learners
- Increases local knowledge and connection to place
- Develops global knowledge
- Encourages enterprise and innovation
- Builds skills and competencies relevant to the 21st Century
- Makes STEM subjects more accessible
- Access to state of the art research and engagement with global case studies and researchers

FOR TEACHERS

- One project across learning areas = less planning in the long-term
- Built-in assessment opportunities
- Connections to Junior Cycle SOL and Senior Cycle skills framework
- Easily scaffolded to other programmes and ages e.g. LCA
- Transferable skills development
- Increased engagement and responsibility
- Teacher as facilitator
- Opportunistic professional development- CPD 'by doing' in class
- Access to state of the art research and engagement with global case studies and researchers
- Online peer support network

ADAPTABLE TO YOUR TIMETABLE

Our programmes are designed to align with existing timetables and teaching plans and we offer a planning session and monthly support to adapt lessons and programmes to your needs.



A standard lesson is 60 mins, with reduction / extension options of 40 / 80 min.



A micro-module averages 5 - 12 lessons.



A full unit is 7 micro-modules and can be delivered over 3 terms, ideally with a minimum of 2 - 3 teachers.

PROGRAMME OVERVIEW

FLEXIBLE PROGRAMMES

Teachers and learners need support if they are to meet their potential as well prepare for the new societal, environmental, technological and economic challenges, which face us all. We will need creative, whole system, ethical thinkers and doers, with an ability to try new approaches and manage risk. Our programmes are designed to provide this support.

Our programmes have been developed by an interdisciplinary team of researchers, industry and civil society experts to insure your students have access to 21st Century knowledge, skills and competencies.

[CLICK TO REGISTER HERE YOUR INTEREST USING A SCHOOL EMAIL ALL PROGRAMMES AND SUPPORT ARE FREE.](#)

[FOR A BRIEF OVERVIEW OF THE PROGRAMMES CLICK HERE](#)

Climate Change Engage



Seeding Sustainability



Dream Designs



Marine Plastic Waste



Future of the Ocean



Future of Food



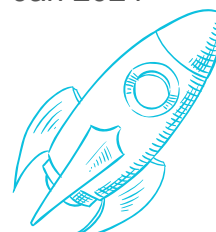
Future of Innovation



Future of Fashion



Future of Space Jan 2024



PROGRAMME OVERVIEW

UNIT AND LESSON STRUCTURE

Full year long units are divided into three phases working towards real-world themed solutions. Phases can also be delivered independently of one another, as selected micro-lessons or as individual lessons to complement your existing teaching plans.

PHASE 1

Research and Development

Micro module 1 - core circular design thinking module specific to theme

Micro modules 2 and 3 develop knowledge acquisition and application

These modules introduce learners to key concepts and STEAM skills

PHASE 2

Experimentation and Exploration

These modules develop learners' skills and competencies

This is achieved by practical application and experimentation

PHASE 3

Experimentation and Exploration

These modules support learners' real world project delivery

The project management aspect including media outputs and client contact


LESSON STRUCTURE

All lessons are stand-alone, meaning you can deliver only one or a few lessons or the whole micro-module, module, or unit. All lessons consist of the following parts:

- Lesson title and summary
- Vocabulary
- Learning outcomes
- Materials
- Activity instructions
- Reflective exercise
- Extension / reduction activities
- Media box
- Local trip / expertise
- Learner worksheets and teacher guides / answers

and can be delivered by any teacher no matter their subject knowledge or experience with project-based learning that integrates Universal Design for Learning, Circular Design Thinking, the Sustainable Development Goals and STEAM education.

HOW TO USE OUR RESOURCES



Register
[Click here to register.](#)

Select a programme
Choose from nine Transition Year programmes!

Select Unit or Module
Deliver the whole unit or select a module or lesson.

Resource overview
Includes lesson outcomes, vocabulary, lesson instructions, media box, local trips / expertise and built-in assessment.

Lesson Overview
Each lesson can be adapted to 40, 60, or 80 mins.

Learners Resources
All units include learner worksheets, which can be individually downloaded!

CORE TEAM



DR. ANITA MCKEOWN FRSA FIPM

MCSS Co-programme Lead

Anita.McKeown@ucd.ie



REBECCA WHITE

MCSS Co-programme Lead

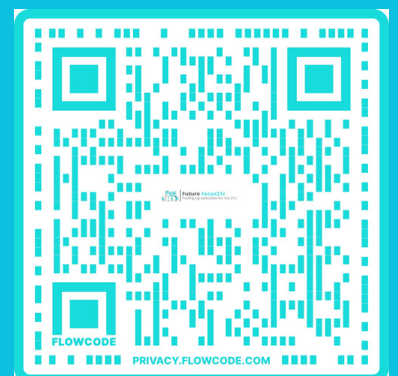
Rebecca.White@ucd.ie



DR. JESSICA GARSKA

MCSS Project and Content Development Manager

Jessica.Garska@ucd.ie



An Roinn Oideachais
Department of Education



Scan for more info