



Glasgow Challenges Climate - IDL

Stop Being Stationary





Interdisciplinary Learning

What is it?

Interdisciplinary Learning is a planned experience that brings curricular areas together in one coherent programme or project. These might fall within one curricular area (e.g. languages, sciences) or between several curricular areas. IDL enables children and young people to:

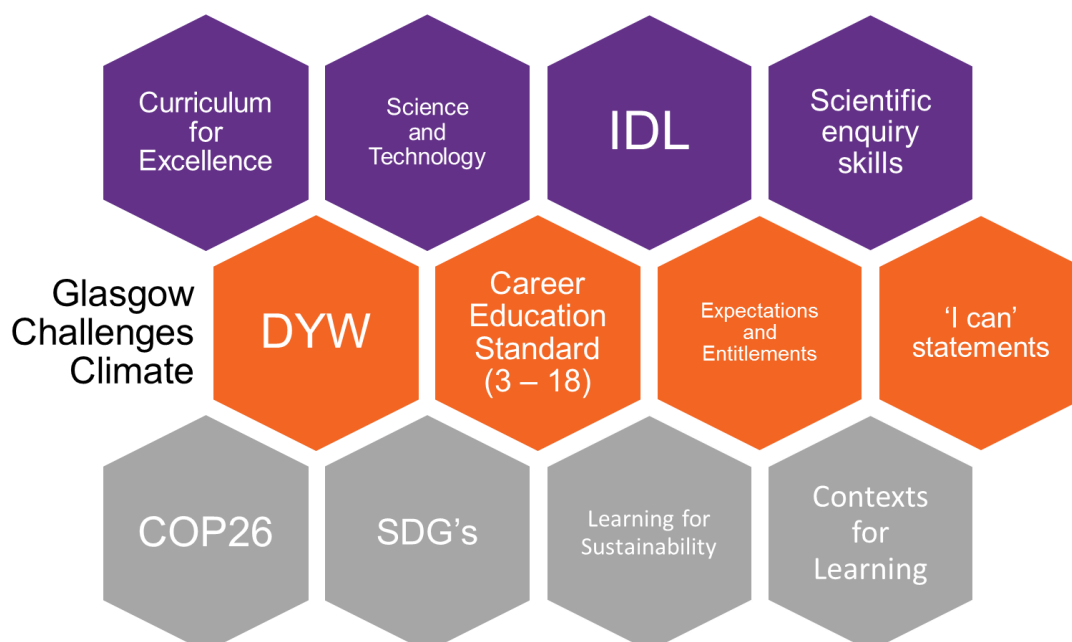
- *Learn new knowledge or skills, and develop new understanding of concepts*
- *Draw on prior knowledge, understanding and skills*
- *Transfer and apply that collective knowledge to new problems or other areas of learning*

Interdisciplinary learning should be challenging for learners. The challenge is personalised, owned by the learner, and so intrinsic engagement is higher than in a more traditional one-size-fits-all experience.

IDL relies on learners developing certain skills over the long haul, if they are to be able to seek out different ways to tackle a project or topic, for themselves, and not one set path defined by the practitioner. These skills include the Skills Development Scotland Meta-skills which have been identified as the skills employers are looking for in the future workforce.

Through an IDL experience every learner should be able to express what they're learning, and why.

For more information on IDL please refer to the recently released IDL Thought Paper from Education Scotland: <https://education.gov.scot/media/mkomulen/interdisciplinary-learning-thought-paper.pdf>





United Nations Climate Change Conference

Why Glasgow Challenges Climate?

Climate change is a complex moral, scientific, social and technological issue that is likely to be one of the defining issues of the 21st Century. It is essential that children and young people are given the opportunity to learn about this important issue and develop informed opinions and views as global citizens as well as take part in finding the solutions that will impact their future.

This IDL will provide pupils with the opportunity to engage with:

- *Learning for sustainability*
- *Skills development*
- *Exploring local contexts*
- *Cross curricular learning*

Learners may also be aware that Glasgow will be at the centre of discussions about Climate Change as it is due to host the United Nations Climate Change Conference (COP 26) in November 2021.

COP 26 - What is it?

The 2020 United Nations Climate Change Conference, also known as **COP26**, is the 26th United Nations Climate Change Conference.

The purpose of the conference is to allow nations to work together to respond to the climate emergency. The conference will last for two weeks and it has been described as the most important gathering on climate change since the Paris agreement was signed in 2015.

When is it?

The UK will host the 26th United Nations Climate Change Conference of the Parties (COP26) at the Scottish Event Campus (SEC) in Glasgow on 1st – 12th November 2021.



The **Sustainable Development Goals (SDGs)** are a collection of 17 global goals designed to be a "blueprint to achieve a better and more sustainable future for all". The **SDGs**, set in 2015 by the United Nations General Assembly are intended to be achieved by the year 2030.

The Glasgow Challenges Climate focuses on 3 of the SDG's:

- **Goal 9** - Industry Innovation and Infrastructure
- **Goal 11** - Sustainable Cities and Communities
- **Goal 13** - Climate Action





Glasgow Challenges Climate: *Stop Being Stationary*

Curriculum for Excellence

Experiences and Outcomes

Sciences:

SCN 2-02b, 2-04a, 2-05a, 2-20b

SCN 3-04a, 3-04b, 3-05b, 3-20b

Technologies:

TCH 2-02a, 2-06a, 2-09a, 2-10a, 2-12a

TCH 3-02a, 3-06a, 3-09a, 3-10a, 3-12a

Skills Development Scotland

The Metaskills are the skills employers are looking for in the future workforce.

These skills are themed into the following categories:

- 1. Social Intelligence*
- 2. Innovation*
- 3. Self Management*

Scientific analytical thinking skills

- Demonstrate creative thinking by offering suggestions and solutions to everyday problems*
- Demonstrates reasoning skills by explaining choices and decisions*

Skills and attributes of scientifically literate citizens

- Demonstrates awareness of the importance of respecting living things and the environment and of managing the Earth's resources responsibly*

Stop Being Stationary

Glasgow Central Station is located in the heart of the city centre is the largest and busiest train station in Scotland. Built in 1879 the station has grown from 8 to 15 platforms has over 32 million visitors each year, most of whom are passengers.

The station is surrounded by busy streets filled with traffic and is one of the most air polluted areas in Glasgow. Climate adaptation is when existing buildings and spaces are altered and adapted to better address sustainability and climate issues.

The Project: How can Glasgow Central Station be adapted to be more sustainable and eco-friendly?

Outcome

The project will launch on the 2nd of February - 14th May 2021.

Pupils should submit their final project in one of the following formats:

- Video (max. 3 mins)
- Written report
- PowerPoint (this could be narrated)

Submit to: STEMGCC@glowmail.org.uk

The final submission should also include a summarising image of the overall project (this will be displayed in the GSC online gallery at the Curious About: Innovation event in May).

One video of each context will be selected to be screened at GSC's *Curious About: Innovation* event in May.

#GlasgowChallengesClimate

COVID-19

Learners should check the current COVID-19 guidelines and apply this to their contexts if suitable.



Glasgow Challenges Climate:

Stop Being Stationary

What do you already know?

- Glasgow Central Station is the 12th busiest station in Britain with over 32 million visitors each year
- Over 48,000 panes of glass were used to build the glass roof. One of the largest in the world
- Situated in the centre of Glasgow the station sits within the low emissions zone
- The streets surrounding the station are some of the most highly air polluted in Glasgow
- The station tunnel on Argyle Street is frequently used as shelter and a place to sleep by the homeless

What do you need to know?

Some questions to consider:

1. What are the main sustainability/climate issues in Central Station?
2. What current ways can buildings be adapted to be more eco friendly? Can these be used in the station?
3. What materials could be used to construct the solution?
4. How much will the solution cost to implement?
5. How sustainable is the solution?
6. Does the solution have a dual purpose?
7. Is there an opportunity to adapt the station to tackle social issues in Glasgow?

Glasgow Doors Open Day Digital Festival



Glasgow Doors Open Days Festival is an annual event celebrating the city's architecture, culture & heritage. Each September dozens

of participants throw open the doors of over 100 historic buildings, theatres, museum stores, factories, studios, breweries & more, across the city, to the public, for free. Their mission is to increase civic pride amongst Glaswegians and to broaden awareness of the city's rich built & cultural heritage at local, national & international levels. This year the festival has gone digital with lots of resources available on the Open Doors website, including audio trails, workshops and more:

For more information visit:

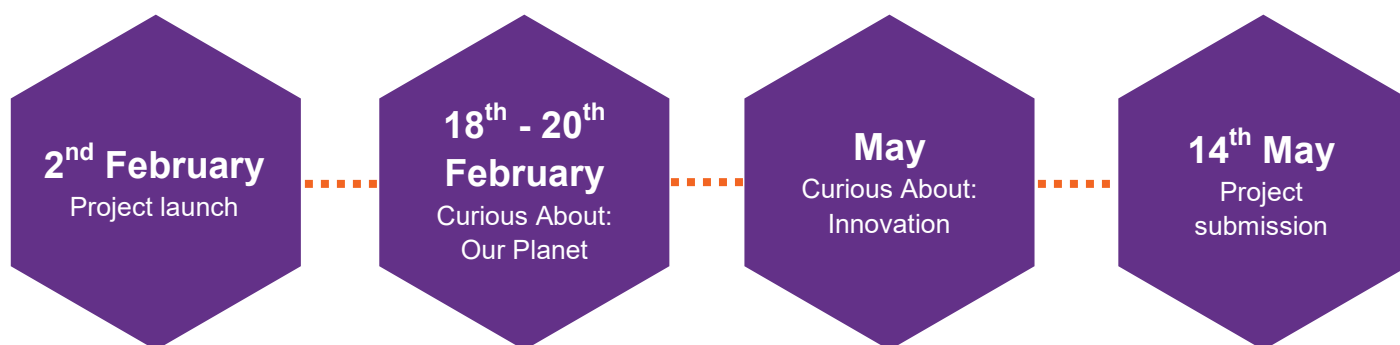
www.glasgowdoorsopendays.org.uk

Pupils taking part in Glasgow Challenges Climate will also have access to the Glasgow Doors Open Digital Map which allows users to easily explore the historic buildings on their doorstep:

<https://www.google.com/maps/d/viewer?mid=1MvlodXtnteC1SajZYOlPk0E6Kia2qstC&ll=55.856035138518436%2C-4.26720060224609&z=13>



Glasgow Challenges Climate: *Dear Green Place*



Glasgow Science Centre Curious About: Our Planet

Included in the project is the opportunity for schools to engage with Curious About offers from the Glasgow Science Centre.

This includes the new '*Curious About: Our Planet*' which is a three day online festival that explores the far reaches of our world without leaving the comfort of your home or classroom. Pupils can uncover the impact of climate change on our beautiful planet through live talks, innovative events, art exhibitions and more.



This is a fantastic opportunity for schools participating in Glasgow Challenges Climate to engage with conservationists and discover how you can contribute to a more sustainable future.

Register here: <https://curiousabout.glasgowsciencecentre.org/>

Glasgow Science Centre's Idea No59 exhibition celebrates the innovative spirit in all of us and how this spirit can change the world, and the ways in which science and technology are reshaping today's society.

Explore innovation through the emerging themes of health and care reimagined, the resourceful planet and evolving industry. Whilst developing the key skills of an innovator which include; creativity, collaboration, communication and critical thinking. For more info visit:

<https://www.glasgowsciencecentre.org/idea-no59>





Skills 4.0

Meta-skills

<u>Self Management</u>	<u>Social Intelligence</u>	<u>Innovation</u>
Focussing	Communicating	Curiosity
Integrity	Feeling	Creativity
Adapting	Collaborating	Sense Making
Initiative	Leading	Critical Thinking

Skills Development Scotland—Skills 4.0

Career Education Standard (3-18):

By the end of Second Level

- I can recognise the skills I have needed for work.
- I can identify people in my network who help me broaden my horizons.
- I can discuss the relevance of skills to the wider world and make connection between skills and the world of work.

By the end of Broad General Education (BGE)

- I can demonstrate and apply the skills I have learnt across the curriculum in relation to the world of work.
- I can access advice and support to help me make informed choices about further learning and opportunities.
- I can investigate and assess ethical issues in business and trade decisions.



Glasgow Challenges Climate IDL Planner



KWL

What do we know?

What do we want to know and
how will we find out?

What have we learned and how
do we going to share?

Outdoor Learning

What are the planned outdoor learning opportunities?



Challenge Questions

Have local links been taken into consideration to contextualise learning and make it more relevant for learners?

Are there opportunities for partners/other school staff to be involved?

Is there a shared goal among learners and have the skills required to achieve this been identified?

Have relevant cross curricular links been made?

Does the IDL provide breadth, challenge and depth?

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