LGBTQ+ Inclusive Education in STEM

Second Level

Use this resource to explore the lives and works of LGBTQ+ scientists. Introduce learners to some LGBTQ+ identities and to the idea that anyone can be a scientist.

Learning Outcomes

As I explore the rights to which I and others are entitled, I am able to exercise these rights appropriately and accept the responsibilities that go with them. I show respect for the rights of others.
HWB 2-09a

I can share my developing views about values such as fairness and equality and love, caring, sharing and human rights.
RME 2-05b

I can use my knowledge of the interactions and energy flow between plants and animals in ecosystems, food chains and webs. I have contributed to the design or conservation of a wildlife area.
SCN 2-02a

Through carrying out practical activities and investigations, I can show how plants have benefited society.
SCN 2-02b

By observing and researching features of our solar system, I can use simple models to communicate my understanding of size, scale, time and relative motion within it.
SCN 2-06a

I have collaborated in investigations to compare magnetic, electrostatic and gravitational forces and have explored their practical applications.
SCN 2-08a

By investigating some body systems and potential problems which they may develop, I can make informed decisions to help me to maintain my health and wellbeing.
SCN 2-12a

Through research and discussion I have an appreciation of the contribution that individuals are making to scientific discovery and invention and the impact this has made on society.
SCN 2-20a

I can gather and use information about forms of discrimination against people in societies and consider the impact this has on people's lives.
SOC 2-16b

I can discuss issues of the diversity of cultures, values and customs in our society.
SOC 2-16c

As I listen or watch, I can identify and discuss the purpose, main ideas and supporting detail contained within the text, and use this information for different purposes.
LIT 2-04a

Using what I know about the features of different types of texts, I can find, select and sort information from a variety of sources and use this for different purposes.
LIT 2-14a

LGBT Inclusive Education learning themes

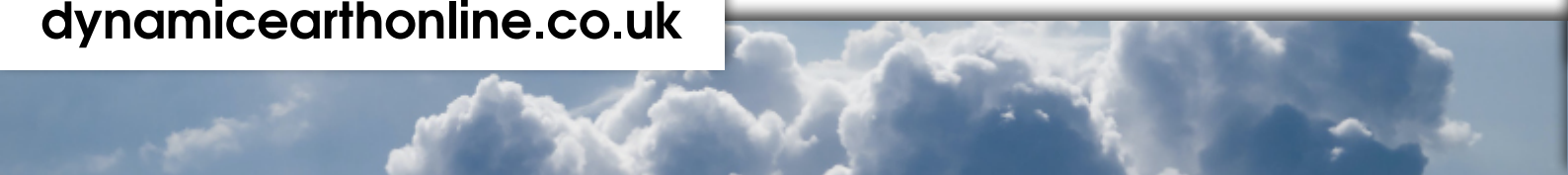
- Identifying prejudice, discrimination, and bullying
- Celebrating diversity and difference
- LGBT past and present figures and role models
- Recognising and challenging gender stereotypes

Equality Act characteristics covered:

- Sexual orientation
- Gender reassignment
- Sex
- Race

Learning for sustainability hashtags

#UnderstandingInterdependence #LearningForABetterWorld #CriticalThinking #ProblemSolving #GlobalCitizenship #EqualityAndFairness #SocialJustice #ValuesBased #Respect #SustainableEnergyAndWaterUse #ContactWithNature #OutdoorLearning #Creativity #Play #Culture



1. Who can be a scientist pt. 1
In the Learning Pathway's introduction we ask learners to discuss what they think makes a good scientist. We then provide you with some experiment ideas to try out to show that everyone can be a scientist.

2. Astronomy
This step focuses on Nergis Mavalvala, an astrophysicist who works on gravitational waves. We then have a look at some space-themes activities around how objects move in space and how gravity would impact us.

3. Physics
You'll learn about Angela Clayton and understand how nuclear power works, as well as looking at some alternate ways to produce energy.

4. Biology
This section is all about George Washington Carver, a plant scientist, and how he improved soil and crop growing in the USA. Activities here look at food and ecosystems, and local plant biodiversity.

5. Medicine
Step 5 looks at Sophia Jex-Blake, one of the Edinburgh Seven, the first women to study medicine! You'll take a look at how digestion works, microbes, and learn about the Seven.

6. Who can be a scientist pt. 2
In the last step, you'll look at our Who Can Be a Scientist resource, examining stereotypes and prejudice, and then at the TIE resource on discrimination.