

Resources available from Education Scotland

<https://bit.ly/STEM-Blog>



STEM@educationscotland.gov.scot

Round 3 Phase 2 Breakdown (59 Projects)

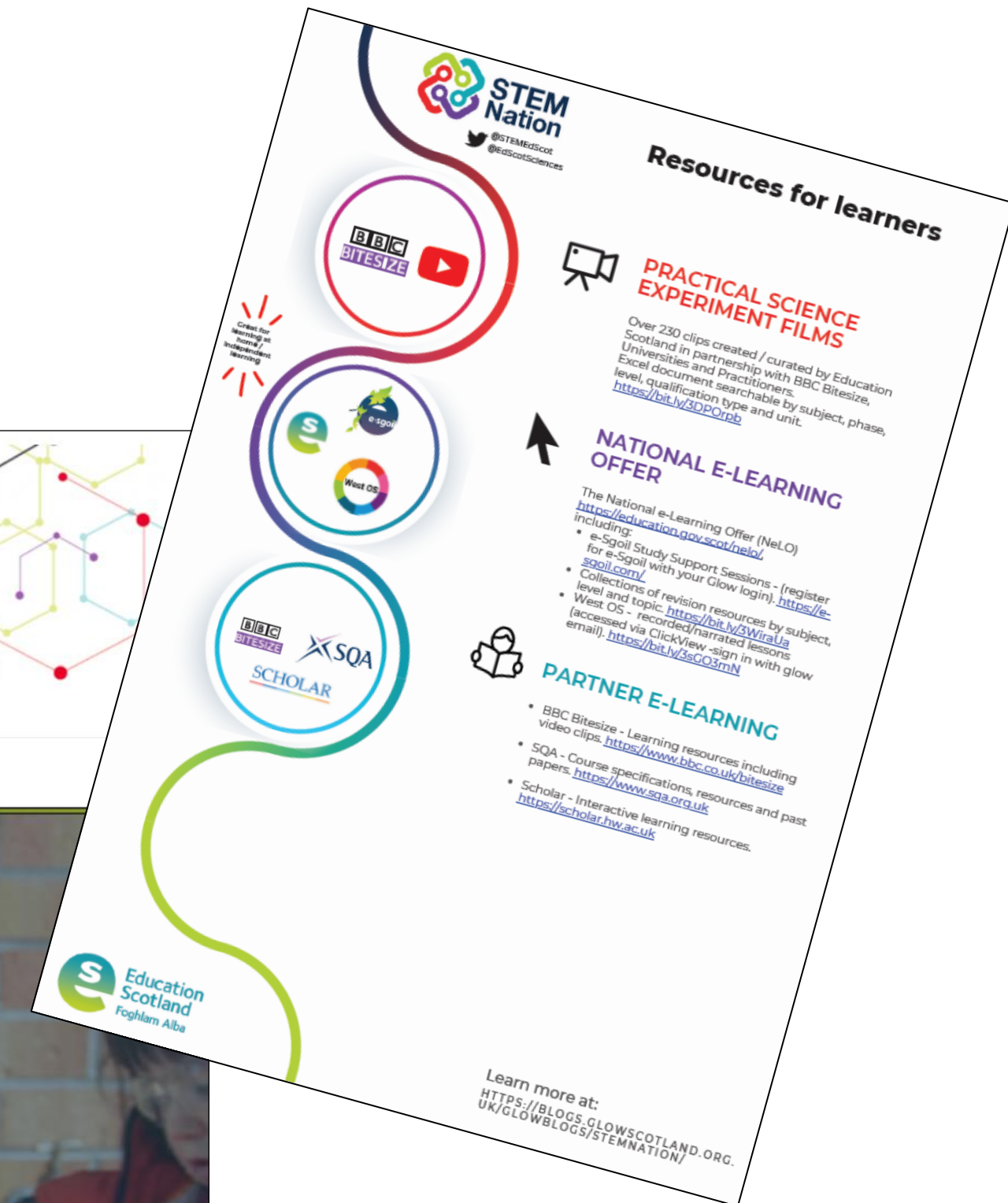
STEM	£167,533
Numeracy and Mathematics	£178,410
Total	£345,943

Round 4 Phase 1 Breakdown (59 Projects)

STEM	£194,605
Numeracy and Mathematics	£117,340
Total	£311,945

- Since the inception of the grants programme over £4.3 million has been awarded to 307 STEM professional learning projects.
- An estimated 58,161 practitioners have benefitted for the three funding rounds from over 9.5K establishments.
- A further 29,000 practitioners are set to benefit from Round 4.

- Resources
- Professional Learning
- Networks
- Events
- News



<https://blogs.glowscotland.org.uk/glowblogs/stemnation/>

Events Calendar

- Contains STEM and Learning for Sustainability professional learning opportunities, networks for dialogue and sharing practice and events from across a variety of STEM partners and also includes professional learning offered by Education Scotland.

February 2023

[View all categories](#)



[View all tags](#)



[View all venues](#)

MON	TUE	WED	THU	FRI
30	31	1	2	3
11:00 am STEM Nation Award Drop-in Session – Session 7	4:00 pm Take Eco-Schools Further: Pocket Garden (Jan)	BGE Biology/Physics for Non-Specialists 11:00 am STEM Nation Award Drop-in Session – Session 8	Safe Use Refresher – 1 Day 4:00 pm Context Specific Q and A Informal sessions specifically for your setting 4:15 pm STEM Nation Network	
6	7	8	9	10
3:45 pm Computational Thinking Workshop – OPEN TO ALL UK TEACHERS	3:45 pm Programming Workshop – Introduction to Scratch – OPEN TO ALL UK TEACHERS	Safe Use of Fixed Workshop Machinery 8th 9th February 2023		



- Approximately 24,000 resource links across 37 subjects
- 5000+ resource links for sciences NQs
- All 3 strands of NeLO have content contained within NeLO micro-site on: e-Sgoil, West OS & ES (supported)
- Supported element was developed by teachers for teachers by ES Curation groups. These groups collated and curated content which was mapped to the curriculum.
- BBC, West OS, e-Sgoil & SCHOLAR resources
- [National e-Learning Offer | Education Scotland](https://education.gov.scot/nelo/) – <https://education.gov.scot/nelo/>



Practical Science Experiment Films

- Ongoing filming with practitioners, BBC Bitesize and Universities.
- Over 200 practical science experiment films, including:
 - Listings on [STEM Nation Online Resource](https://www.bitlylinks.com/DUtrs8W7K) (<https://www.bitlylinks.com/DUtrs8W7K>)
 - All mandatory secondary experiments filmed for biology, chemistry and physics
 - Many Primary and BGE practical activities



Chemistry National Qualifications Practical Experiment Films 31.03.22

Subject	Experiment Title	Level	Unit	Link
Chemistry	Elephants toothpaste	National 4	Chemical changes and structures	https://www.bbc.co.uk/bitesize/guides/z4n82hv/revision/6
Chemistry	Sign of a chemical reaction - colour change	National 4	Chemical changes and structures	https://www.bbc.co.uk/bitesize/guides/z4n82hv/revision/2
Chemistry	Sign of a chemical reaction - Effervescence (bubbles)	National 4	Chemical changes and structures	https://www.bbc.co.uk/bitesize/guides/z4n82hv/revision/3
Chemistry	Sign of a chemical reaction - Precipitation (solid being formed)	National 4	Chemical changes and structures	https://www.bbc.co.uk/bitesize/guides/z4n82hv/revision/4
Chemistry	Sign of a chemical reaction - Exothermic reaction (heat being given off)	National 4	Chemical changes and structures	https://www.bbc.co.uk/bitesize/guides/z4n82hv/revision/5
Chemistry	Endothermic reaction	National 4	Chemical changes and structures	https://www.bbc.co.uk/bitesize/guides/z4n82hv/revision/5
Chemistry	Making a salt	National 4	Chemical changes and structures	https://www.bbc.co.uk/bitesize/guides/zkfwxnb/revision/6
Chemistry	Reactions of metals with an acid	National 4	Chemical changes and structures	https://www.bbc.co.uk/bitesize/guides/zib2pv4/revision/3
Chemistry	Reactions of metals with oxygen	National 4	Chemical changes and structures	https://www.bbc.co.uk/bitesize/guides/zib2pv4/revision/4
Chemistry	Corrosion of iron	National 4	Chemical changes and structures	https://www.bbc.co.uk/bitesize/guides/zib2pv4/revision/5
Chemistry	Electrochemical cell	National 4	Chemistry in society	https://www.bbc.co.uk/bitesize/guides/zib2pv4/revision/6
Chemistry	Electrolysis of Copper Chloride solution	National 4	Chemistry in society	https://www.bbc.co.uk/bitesize/guides/zib2pv4/revision/7
Chemistry	One beaker cell	National 4	Chemistry in society	https://www.bbc.co.uk/bitesize/guides/zib2pv4/revision/7
Chemistry	Hydrocarbons combustion	National 4	Nature's Chemistry	https://www.youtube.com/watch?v=nit_msHGAtM&list=PL2doW68ik7MQcHGKLFDCSAwB_WKtFgboCR&index=16
Chemistry	Hydrocarbons combustion	National 4	Nature's Chemistry	https://www.bbc.co.uk/bitesize/guides/z8vif6e/revision/3



Practical Science
Experiment Films

Periodicity

[BBC Bitesize Revision](#)

[Scholar Revision Materials](#)

[West OS Narrated Lessons](#)

[Miss Adams Narrated Lesson: Topic Review](#)

[RSC Interactive Periodic Table](#)

[E-Sgoil MS Form Quiz: Atomic Size](#)

[E-Sgoil MS Form Quiz: Ionisation Energies](#)

[E-Sgoil MS Form Quiz: Electronegativity](#)

Structure and Bonding

[BBC Bitesize Revision](#)

[Scholar Revision Materials](#)

[West OS Narrated Lesson: Bonding in Elements](#)

[West OS Narrated Lesson: Bonding Continuum](#)

[Miss Adams Narrated Lesson: Bonding & Intermolecular Forces](#)

[Miss Adams Narrated Lesson: Properties due to bonding](#)

[E-Sgoil MS Form Quiz: Bonding in Elements](#)

[E-Sgoil MS Form Quiz: Bonding Continuum](#)

National e-Learning Offer

National e-Learning Offer

Higher Chemistry - Equilibrium

The SQA Higher Chemistry Course (SCQF Level 6) looks at Equilibrium – Relating the definitions and applications of equilibrium.

This content provides the learner with an overview of elements of Equilibrium, it does not cover the whole course and should be used only to supplement in school teaching and study at home.

- [BBC Bitesize](#) – Equilibrium (includes a test to check your understanding)
- [Equilibrium](#) – Video lesson from West OS, with MS Form Quiz and Practice Questions.
- [Chemical Equilibrium](#) – Video lesson from Miss Adams
- [Equilibrium](#) - PowerPoint
- [Scholar](#) – Equilibrium learning resources (including topic test)
- [Reversible Reactions](#) – Introduction to equilibrium from Fran Scott (BBC Bitesize GCSE)

Esters, Fats and Oils

5 videos



West OS



Open in Library Editor

WEST PARTNERSHIP ONLINE SCHOOL

This platform is evolving

Generate PDF

Libraries / West OS / Senior Phase / Chemistry / Higher / Nature's Chemistry / Esters, Fats and Oils

Sort by

Production Year



Esters

E

10:48

Show video



Fats and Oils

E

9:37

Show video

Fats and Oils

E



Loose plug of cotton wool

Wet paper towel attached by elastic band

Hot water bath

Alcohol, carboxylic acid and conc. H_2SO_4

Pause (k)

Reaction mixture is left to react for ten minutes.

<https://bit.ly/STEM-Blog>

Resources

Oils - marking

Oils - Practice

Notes.pdf

Esters, Fats & Oils.pdf

Esters, Fats & Oils

Quiz - Esters

Esters Experiment video

Edinburgh

Collated Resources

**Where to find support for sciences
(biology, chemistry, physics, environmental science and skills for work)**



Chemistry

Title	Target audience	Location	Description
National e-Learning Offer (NeLO)	Chemistry Practitioners	https://education.gov.scot/neLO/	Collections of Revision Resources by Level and Topic (http://bit.ly/3EmwPwb)
Strontium email group	Chemistry Practitioners	Registration Form	Opportunities to share resources and discuss Resource Spreadsheet (http://bit.ly/3Vxmn4L)
Royal Society of Chemistry	Chemistry Practitioners and Technicians	https://www.rsc.org/ Improved access through free registration to Teach Chemistry - https://edu.rsc.org/register	Resources / Articles Professional Learning Sessions (https://edu.rsc.org/teacher-pd) Advice regarding practical activities Career profiles – Future in Chemistry (Mapped to curriculum - http://bit.ly/3GzQsNF) Funding & grant opportunities (http://bit.ly/3XmpdX9) https://www.chemistryworld.com/ – various resources including Podcasts and Webinars
Planned in Scotland for Teachers in Scotland	Chemistry Practitioners	https://chemistryteaching.scot/	Regular online professional learning sessions Recordings of previous sessions Links to relevant articles / professional learning
Scottish Chemistry Teachers Collaborative	Chemistry Practitioners	Teams with Glow (Link / Join Code: mub5k8) (Glow-login required and Glow username required to join)	Opportunities to share resources and discuss Annual in person networking session
Secondary Sciences Network	Secondary Science Practitioners	Teams with Glow (Link / Join Code: uh9sf32) (Glow-login required and Glow username required to join)	Regular online sessions (including recordings of previous sessions: https://bit.ly/3WuPbYc) Sharing professional learning / pupil events Opportunities for discussions and sharing resources
Scottish Qualifications Authority (SQA)	Chemistry Learners and Practitioners	https://www.sqa.org.uk/	Course Specifications and Past Papers (https://www.sqa.org.uk/sqa/45720.html) SQA - Understanding Standards: Chemistry – Detailed information on marking questions & assignments (http://bit.ly/3U4Y0FF)
BBC Teach YouTube Channel	Chemistry Learners and Practitioners	Chemistry Playlist : http://bit.ly/3EP6Ra8	Variety of clips from the BBC relating to Level 3 to National 5 Chemistry
SSERC (Scottish Schools Education Research Centre)	All practitioners involved in practical activities. Technicians.	https://www.sserc.org.uk/ 1-3 Pitreavie Court, Dunfermline, KY11 8UU	Professional Learning Advice for practical activities Health & Safety Advice

(bit.ly/ESSciSupport)