**Sciences**

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| **Title** | **Target audience** | **Location** | **Description** |
| **STEM Nation Network** | All sectors | Teams with Glow ([Link](https://teams.microsoft.com/l/team/19%3a35e2bf6da15a4990961d8c669c7367b1%40thread.tacv2/conversations?groupId=90192411-bef9-407b-8b24-6e950423f722&tenantId=ccd32ca3-16ce-428f-9541-372d6b051929))  (Glow-login required and Glow username  required to join) | Monthly online sessions (including recordings of previous sessions)  Sharing professional learning / pupil events  Opportunities for discussions and sharing resources |
| **Secondary Sciences Network** | Secondary Science Practitioners | Teams with Glow ([Link](https://teams.microsoft.com/l/team/19%3a7dbc2a1a2d3a4a0fa13c593a0e367efb%40thread.tacv2/conversations?groupId=63402e33-e7e7-496b-84c6-e7ec3ba328d5&tenantId=ccd32ca3-16ce-428f-9541-372d6b051929) / Join Code: uh9sf32)  (Glow-login required and Glow username  required to join) | Regular online sessions (including recordings of previous sessions: <https://bit.ly/3WuPbYr>)  Sharing professional learning / pupil events  Opportunities for discussions and sharing resources |
| **Education Scotland - STEM Team** | All sectors | STEM Nation Online Resource (<https://bit.ly/3Gyl5xj>)  STEM Wakelet: <https://wakelet.com/@STEMES>  Sciences Wakelet: <https://bit.ly/3i0Lp94> | Anytime learning, reading, research and endorsed programmes. (<https://bit.ly/3DMV8Zg>)  Resources and PL for all things STEM. (<https://bit.ly/3FwNLXe>)  STEM Nation Award. (<https://bit.ly/3DoyMMd>)  Practical Science Experiment Films. (<https://bit.ly/3DPOrpb>) |
| **National Sciences PLC** | All sectors | Sharepoint site on Glow ([https://bit.ly/3zTdIN9)](https://glowscotland.sharepoint.com/sites/sciencesplc/SitePages/Secondary-Sciences-Working-Groups-Resources-2020.aspx)  (Glow login required) | Learning and teaching resources  Professional learning  Key documents  BGE Science Career Resource |
| **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  STEM Ambassadors (<https://www.stemambassadors.scot/>)  Young STEM Leader Programme (<https://www.youngstemleader.scot/>) |
| **Education Scotland** | All sectors | [Education Scotland](https://www.education.gov.scot/education-scotland/) | Wide range of resources and opportunities:  [Professional Learning Sessions](Professional%20Learning%20Sessions) (<http://bit.ly/3tWAhgh>)  [Professional Learning & Leadership Programmes](https://professionallearning.education.gov.scot/learn/) (<http://bit.ly/3iaBGNN>) |
| **Parental resources** | Parents | [Parentzone Scotland](https://education.gov.scot/parentzone)  National parent forum of Scotland | Parentzone Scotland: I am a scientist (PDF file) (<https://bit.ly/3XmIDLC>) Parentzone Scotland: I am a scientist - Gaelic version (PDF file) (<https://bit.ly/3Vh89zZ)>  National Parent Forum Scotland – STEM in a nutshell resource (<https://bit.ly/3EM69ue)> |
| **RAiSE- science and STEM planning resources** | Primary Practitioners | STEM Nation Online Resource (<http://bit.ly/3FwNLXe>)  [Raising Aspirations in Science Education NIH](https://education.gov.scot/improvement/learning-resources/Raise)  [RAiSE - The Wood Foundation](https://www.thewoodfoundation.org.uk/developing-young-people-in-scotland/raise/) | A comprehensive resources to support planning of sciences from Early to Second Levels:  - STEM through Stories - using stories as a hook to engage and explore scientific concepts (<https://bit.ly/3gnPNyF)>  - Primary science wakelet (<https://bit.ly/3TVpwFI)>  - [Science Planning resource](https://blogs.glowscotland.org.uk/glowblogs/stemnation/science-planning-resource/) (<http://bit.ly/3hVP5sL>) and [[Context Planners – Cross curricular plans on common contexts](Context%20Planners%20–%20Cross%20curricular%20plans%20on%20common%20contexts)](https://blogs.glowscotland.org.uk/glowblogs/stemnation/science-planning-resource-context-planners/)  (<http://bit.ly/3i8Lbg9>)  [NIH](https://education.gov.scot/improvement/learning-resources/Raise) - RAiSE Overview, news stories, case studies and newsletters (<http://bit.ly/3tS1qRF>)  [The Wood Foundation](https://www.thewoodfoundation.org.uk/developing-young-people-in-scotland/raise/) : Overview of RAiSE active and exited authorities and details for PSDOs (http://bit.ly/3gxxFCy) |
| **National e-Learning Offer (NeLO)** | All sectors | Education Scotland NeLO website  <https://bit.ly/3OnprJA> | e-Sgoil study support sessions (<https://e-sgoil.com/>)  West OS – recorded narrated lessons and other resource (accessed via ClickView -sign in with glow  email). <https://bit.ly/3sGO3mN>  Level 3 BGE Science Collections - revision resources by topic (<http://bit.ly/3i2kKJ1>) |
| **Career Resources** | All Sectors | <https://www.dyw.scot/>  <https://www.myworldofwork.co.uk/> | DYW have pulled together a range of resources from employers and partners to showcase careers in STEM. (<http://bit.ly/3tQimrH>)  Range of resources and opportunities to help bring the world of work to life. (<http://bit.ly/3GypZKN>) |

**Biology**

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| **Title** | **Target audience** | **Location** | **Description** |
| **National e-Learning Offer (NeLO) collections** | Biology Learners and Practitioners | <https://education.gov.scot/nelo/> | Revision Collection for Pupils which link to various resources:  - Higher Human Biology (<http://bit.ly/3GyDU3G>)  Practical Science Experiment Films for Biology (<https://bit.ly/3XmLd4g)> |
| **Synapse email group** | Biology Practitioners | To be added, Email Dr Annie McRobbie ([Annie.McRobbie@sserc.scot](mailto:Annie.McRobbie@sserc.scot)) | Opportunities to share resources and discuss  Resource Spreadsheet (<http://bit.ly/3TYApq6>) |
| **Secondary Sciences Network** | Secondary Science Practitioners | Teams with Glow ([Link](https://teams.microsoft.com/l/team/19%3a7dbc2a1a2d3a4a0fa13c593a0e367efb%40thread.tacv2/conversations?groupId=63402e33-e7e7-496b-84c6-e7ec3ba328d5&tenantId=ccd32ca3-16ce-428f-9541-372d6b051929) / Join Code: uh9sf32)  (Glow-login required and Glow username  required to join) | Regular online sessions (including recordings of previous sessions: <https://bit.ly/3WuPbYr>)  Sharing professional learning / pupil events  Opportunities for discussions and sharing resources |
| **Royal Society of Biology** | Biology practitioners and learners  Biology Practitioners | <https://www.rsb.org.uk/> | Careers resources  School competitions  Resources for primary schools  Resources for learners |
| **BBC Teach YouTube Channel** | Biology Learners and Practitioners | [Biology Playlist](https://www.youtube.com/playlist?list=PLcvEcrsF_9zI9AX2fthVs9Pi8Mv-T3En3) : <http://bit.ly/3TTzdoa> | Variety of clips from the BBC relating to Level 3 to National 5 Biology |
| **Scottish Qualifications Authority (SQA)** | Biology Learners and Practitioners | <https://www.sqa.org.uk/> | Course Specifications and Past Papers (<https://www.sqa.org.uk/sqa/45723.html>)  [SQA - Understanding Standards: Biology](https://www.understandingstandards.org.uk/Subjects/Biology) – Detailed information on marking questions & assignments (<http://bit.ly/3gz1SB2>)  [SQA - Understanding Standards: Human Biology](https://www.understandingstandards.org.uk/Subjects/HumanBiology) - Detailed information on marking questions & assignments (<http://bit.ly/3gAQdSr>) |
| **Higher Biology Podcast** | Higher Biology Learners | <http://bit.ly/3hORFAL> | The Higher Biology Podcast, with Paul Downie, aims to provide insight into the SQA Higher Biology Course with interviews with scientists, authors, filmmakers, broadcasters, journalists, politicians as well as input from classroom teachers. |
| **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 |

**Chemistry**

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| **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/3EmvPwh>) |
| **Strontium email group** | Chemistry Practitioners | [Registration Form](https://forms.gle/eQSR9yHTb47WZ5hG9) | Opportunities to share resources and discuss  Resource Spreadsheet (<http://bit.ly/3Vemn4L>) |
| **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/3tQpNPI>)  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](https://teams.microsoft.com/l/team/19%3aFBCOcIpsISyAFg5LO4TLsQMM5m6Ik7wr4SCI0RzWQGA1%40thread.tacv2/conversations?groupId=0a72c0a0-fd7e-4567-bf0a-06069b5a201f&tenantId=ccd32ca3-16ce-428f-9541-372d6b051929) / Join Code: mutx5k8)  (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](https://teams.microsoft.com/l/team/19%3a7dbc2a1a2d3a4a0fa13c593a0e367efb%40thread.tacv2/conversations?groupId=63402e33-e7e7-496b-84c6-e7ec3ba328d5&tenantId=ccd32ca3-16ce-428f-9541-372d6b051929) / Join Code: uh9sf32)  (Glow-login required and Glow username  required to join) | Regular online sessions (including recordings of previous sessions: <https://bit.ly/3WuPbYr>)  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](https://www.understandingstandards.org.uk/Subjects/Chemistry) – Detailed information on marking questions & assignments (<http://bit.ly/3U4Y0FF>) |
| **BBC Teach YouTube Channel** | Chemistry Learners and Practitioners | [Chemistry Playlist](https://www.youtube.com/playlist?list=PLcvEcrsF_9zKk8XQP2zAtwTUW8m9QSG2R) : <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 |

**Physics**

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| **Title** | **Target audience** | **Location** | **Description** |
| **National e-Learning Offer (NeLO) collections** | Physics Learners and Practitioners | <https://education.gov.scot/nelo/> | Collection for Pupils which link to various resources. These will be useful for revision  National 5 Physics - NeLO Collection - Pupil (<https://bit.ly/3AxvfuB>)    Practical Science Experiment Films for Physics (<https://bit.ly/3OnohxI)> |
| **Sputnik email group** | Physics Practitioners | To join email : [drewburrett@gmail.com](mailto:drewburrett@gmail.com) | Simple text only email forum to provide opportunities for discussions |
| **Secondary Sciences Network** | Secondary Science practitioners | Teams with Glow ([Link](https://teams.microsoft.com/l/team/19%3a7dbc2a1a2d3a4a0fa13c593a0e367efb%40thread.tacv2/conversations?groupId=63402e33-e7e7-496b-84c6-e7ec3ba328d5&tenantId=ccd32ca3-16ce-428f-9541-372d6b051929) / Join Code: uh9sf32)  (Glow-login required and Glow username  required to join) | Regular online sessions (including recordings of previous sessions: <https://bit.ly/3WuPbYr>)  Sharing professional learning / pupil events  Opportunities for discussions and sharing resources |
| **Institute of Physics** | IoP members, practitioners, policy, industry, academia | <https://www.iop.org/> | IOPSpark (<https://spark.iop.org/>) - resources to help you teach physics – activities, videos and more  Resources Google Spreadsheet - <http://shorturl.at/kruL2> (Curated by IOP Scotland Physics Coaches)  Strategy - <https://www.iop.org/strategy> (to address priorities, including diversity, inclusion, sustainability)  Funding opportunities - <https://www.iop.org/about/support-grants>  Career information – Your Future in Physics - <https://www.iop.org/careers-physics/your-future-with-physics>. |
| **Scottish Qualifications Authority (SQA)** | Physics Learners and Practitioners | <https://www.sqa.org.uk/> | Course Specifications and Past Papers (<https://www.sqa.org.uk/sqa/45729.html>)  [SQA - Understanding Standards: Physics](https://www.understandingstandards.org.uk/Subjects/Physics) – Detailed information on marking questions & assignments (<http://bit.ly/3VbFCfW>) |
| **BBC Teach YouTube Channel** | Physics Learners and Practitioners | [Physics Playlist](https://www.youtube.com/playlist?list=PLcvEcrsF_9zLsgkgR5Pb05uuW0RHHCtDS) : <http://bit.ly/3VieICn> | Variety of clips from the BBC relating to Level 3 to National 5 Physics |
| **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 |

**Environmental science**

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| **Title** | **Target audience** | **Location** | **Description** |
| **Secondary Sciences Network (SSN)** | Secondary Practitioners | Teams with Glow ([Link](https://teams.microsoft.com/l/team/19%3a7dbc2a1a2d3a4a0fa13c593a0e367efb%40thread.tacv2/conversations?groupId=63402e33-e7e7-496b-84c6-e7ec3ba328d5&tenantId=ccd32ca3-16ce-428f-9541-372d6b051929) / Join Code: uh9sf32)  (Glow-login required and Glow username  required to join) | Resources shared between practitioners  Discussion forum |
| **Sciurus email group** | Practitioners teaching Environmental Science courses | [ensciteacher@gmail.com](mailto:ensciteacher@gmail.com) | Email forum for discussions and sharing resources |
| **SSN: Environmental Sciences session** | Practitioners interested in Environmental Science courses | Teams with Glow ([Link](https://teams.microsoft.com/l/team/19%3a7dbc2a1a2d3a4a0fa13c593a0e367efb%40thread.tacv2/conversations?groupId=63402e33-e7e7-496b-84c6-e7ec3ba328d5&tenantId=ccd32ca3-16ce-428f-9541-372d6b051929) / Join Code: uh9sf32) | **SQA perspective, national update around LfS, experience of starting out in, and delivering environmental science course from 2 science teachers and signposts to resources and advice from SSERC.**  - Education Scotland - National update – importance of LfS (8 mins) <https://youtu.be/AqoHY8nCXuY>  - Donna Clark (SQA) - Uptake for environmental science + information on starting out (11 mins) <https://youtu.be/txo7OFyq5cY>  - Jon Goulding (Buckie Community High School) - Shares his experience of delivering environmental science. (15 mins) <https://youtu.be/w-Bixu6MGU4>  - Scott McGarvey (currently University West Scotland, formerly Grange Academy) - Shares his experience of delivering environmental science. (16 mins) - <https://youtu.be/jW8S8hWJhdY>  - Annie McRobbie and Chris Lloyd (SSERC) - Key resources for environmental science and offer from SSERC.Information on lab safety for geography teachers. (12 mins) - <https://youtu.be/CNB0qlDWvBg> |
| **Sciences PLC** | Secondary Practitioners | [Sharepoint site on Glow](https://glowscotland.sharepoint.com/sites/sciencesplc/SitePages/Secondary-Sciences-Working-Groups-Resources-2020.aspx) ([https://bit.ly/3zTdIN9)](https://glowscotland.sharepoint.com/sites/sciencesplc/SitePages/Secondary-Sciences-Working-Groups-Resources-2020.aspx)  (Glow login required) | Environmental sciences NQ resources (<https://bit.ly/3EohIXm)> |
| **Scottish Qualifications Authority (SQA)** | Environmental Science Learners and Practitioners | <https://www.sqa.org.uk/> | Course Specifications and Past Papers (<https://www.sqa.org.uk/sqa/45726.html>)  [SQA - Understanding Standards: Environmental Science](https://www.understandingstandards.org.uk/Subjects/EnvironmentalScience) – Detailed information on marking questions & assignments (<http://bit.ly/3EyL9Wv>) |
| **DYW Live COP 27 recorded sessions** | Primary and secondary Practitioners | [e-Sgoil DYW live](https://www.e-sgoil.com/dyw-live-cop27-homepage/) | DYW Live has collaborated with six fantastic industry partners who will be sharing how they are doing their bit to prevent climate change (<https://bit.ly/3U2pkVi)> |
| **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 |

**Skills for Work Courses**

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| **Title** | **Target audience** | **Location** | **Description** |
| **Secondary Sciences Network (SSN)** | Secondary Practitioners | Teams with Glow ([Link](https://teams.microsoft.com/l/team/19%3a7dbc2a1a2d3a4a0fa13c593a0e367efb%40thread.tacv2/conversations?groupId=63402e33-e7e7-496b-84c6-e7ec3ba328d5&tenantId=ccd32ca3-16ce-428f-9541-372d6b051929) / Join Code: uh9sf32)  (Glow-login required and Glow username  required to join) | Resources shared between practitioners  Discussion forum |
| **SSN : Recording of Laboratory Science session** | Secondary practitioners with interest in Laboratory Science | <https://youtu.be/4ftL-6TBow0> | Introduction to Skills for Work : Laboratory Science Level 5 (including input from Denny High School and Larbert High School) |
| **SSN : Recording of Skills for Work and the Sciences session** | Secondary practitioners | <https://youtu.be/ph_wqUvt4uw> | Skills for Work and the Sciences (NPA Science and Health Level 4 – Shawlands Academy, Practical Electronic Level 5 – Kinross High School, Engineering Skills - Bathgate Academy) |
| **Scottish Qualifications Authority (SQA)** | Practitioners and Learners | <https://www.sqa.org.uk/> | Information about Skills for Work Qualifications (<https://www.sqa.org.uk/sqa/33661.9451.html>)  [SQA - Understanding Standards: Laboratory Science](https://www.understandingstandards.org.uk/Subjects/SkillsforWork/LaboratoryScience) – Introduction to course (<http://bit.ly/3Ox3RlW>) |
| **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 |