



Specification

Level 2 Qualification for Leading Activities in STEM

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The STEM Leader Programme

Level 2 Qualification for Leading Activities in STEM

Qualification Information

Objective:

The Level 2 Qualification for Leading Activities in STEM is a nationally recognised qualification that enables young people to support, engage and inspire others in STEM in their school, community or youth group.

The course focusses on giving young people the skills they need to lead their peers and others in STEM activities, encouraging them to explore the opportunities and challenges that exist in STEM and how to that these can be accessed.

In addition, STEM Leaders are encouraged to explore their own potential in STEM and how they may access the opportunities that STEM offers.

This can be through:

- planning, creating and delivering STEM activities
- supporting and developing STEM knowledge and understanding with individuals or small groups;
- collaborating and sharing on STEM research.

On completion of the award, the Level 2 STEM Leader will understand the challenges that STEM faces and promote STEM opportunities. They will be able to plan, lead and evaluate effective and safe activities, events and interactions, which are appropriate for all participants.

This award is open to anyone aged 13 years upwards and there are no prior entry requirements.

The approximate completion time is 45 hours, inclusive of both tutor time and independent learning.

Course overview:

Minimum age on course start date	13 years old
Pre-requisites	None
Level of supervision during course	Direct supervision
Level of supervision once qualified	Direct supervision
Total Qualification Time (TQT)	35 hours
Tutored time, including assessment time (GLH)	20 hours
STEM leadership hours	4 hours (see the demonstration of leadership section below for more information on this)
Credits	4 credits
Quan code*	603/7897/9

*Please note that the qualification is only available to Centres in England and where assessment of learners takes place solely in England.

Delivering assessment to learners

SLQ has provided an online Learner Evidence Record (LER) for this qualification. STEM Leaders must complete this as they progress through the programme. Evidence is gathered and entered by the STEM Leaders as they complete the specified assessment tasks. This evidence is then assessed by the Tutor/Assessor.

The following assessment methods can be used to support the assessment of learners during the delivery of the qualification:

- Practical observation – completion of a practical observation form
- Questioning of underpinning knowledge and understanding through worksheets
- Plans and evaluations completed during the course
- Reasonable Adjustments can be made to support learners with access to assessment where necessary

Assessment Tasks – evidence and assessment requirements

STEM Leaders must complete and be assessed on the tasks below. The Learner Evidence Record (LER) contains guidance and templates for completing the task. Assessment decisions and feedback to the learner must be completed in the LER.

What the learner needs to complete	What the Tutor/Assessor needs to complete	Assessment cross reference**
Task 1 The skills and behaviours required for leading STEM activities	Assessment table for Task 1	Unit 1 LO1 – AC 1.1 & 1.2
Task 2 Set an action plan to develop STEM leadership skills and behaviours	Assessment table for Task 2	Unit 1 LO2 – AC 2.1, 2.2 & 2.3
Task 3a Outline the opportunities in STEM Task 3b Pursuing opportunities in STEM	Assessment table for Task 3	Unit 2 LO1 – AC 1.1, 1.2 & 1.3
Task 4 Overcoming challenges to accessing STEM opportunities	Assessment table for Task 4	Unit 2 LO2 – AC 2.1 & 2.2
Task 5 Identifying risks in STEM activities	Assessment table for Task 5	Unit 3 LO1 – AC 1.1, 1.2 & 1.3
Task 6 Plan, lead and evaluate a STEM activity	Assessment for Task 6 – evidence assessment and practical observation assessment	Unit 3 LO2 – AC 2.1, 2.2 & 2.3 LO3 – AC 3.1 to 3.6 LO4 – AC 4.1
Task 7 STEM Activity Leadership Log	Sign off the STEM Activity Leadership Log	Unit 3 LO3 – AC3.1
Task 8 Create a plan to run a STEM club	Assessment table for Task 8	Unit 4 LO1 – AC 1.1, 1.2 & 1.3 LO2 – AC 2.1 & 2.2
Task 9 Reflecting on your action plan to develop STEM leadership skills and behaviours	Assessment table for Task 9	Unit 1 LO2 – AC 2.4 Unit 3 LO4 – AC 4.2
Learner Evidence Record	Sign off the Learner Evidence Record	

**Assessment cross reference key: LO – Learning Outcome, AC – Assessment Criterion/Criteria

Resources

To assist you with the delivery and assessment of this qualification SLQ will provide access to the following documents electronically:

- Programme Support Notes
- Learner Evidence Record – online version
- Level 2 Activity Pack
- Quality Assurance forms and documents

Training

The teams at SLQ and at SSERC will offer each centre ongoing support throughout their delivery of the programme.

SLQ will provide:

- Tutor/Assessor training – minimum one person per centre must complete this prior to starting delivery.
- Centre Course Manager eTraining – the Centre Course Manager must complete this to become an Approved Qualification Centre with SLQ.
- Internal verifier eTraining – the named Internal Verifier on every course must complete this training.

SSERC will provide:

- Tutor/Assessor connections and case studies from successful STEM activity leadership delivery in Scotland.
- Specific training and resources for the STEM leaders online platform (live and on-demand).

All training is offered online.

Policies

When agreeing to the Terms and Conditions, all Qualification Centres acknowledge that the following policies are in place and accessible to both learners and tutors as required:

- Complaints policy
- Malpractice and maladministration policy
- Appeals policy

Qualification Units and Assessment Requirements

The STEM Leaders Programme

Level 2 Qualification for Leading Activities in STEM

Unit title and outline	Guided Learning Hours (GLH)		Directed Study	Total Qualification Time	Credits
	Teaching Time Contact time with tutor, acquisition of knowledge and understanding, tutor-led interaction, learning and teaching	Assessment time Completion of the Learner Evidence Record by the Tutor/Assessor	Independent Learning Developing skills, consolidating knowledge and understanding, planning, practice, reflection, research and study time		
Unit 1 - Developing skills and behaviours for leading STEM activities	3 hours	1 hour	2 hours	35 hours	4
Unit 2 - Understanding how to access opportunities in STEM	3 hours	1 hour	3 hours		
Unit 3 - Plan, lead and evaluate STEM activities	8 hours	2 hours	8 hours***		
Unit 4 - Understanding how to run a STEM activity club in your community	1 hour	1 hour	2 hours		

*** Includes 4 hours delivery of STEM activities, events or interactions

Units, Learning Outcomes and Assessment Criteria

Unit 1 – Developing skills and behaviours for leading STEM activities		
Assessment Criteria	Minimum action required	LER Task
Learning Outcome 1 – Understand the skills and behaviours needed for effective, inclusive leadership		
1.1 Describe the skills that an effective leader will need	Describe five skills that an effective STEM Leader will need and why each is necessary	Task 1 – Skills and behaviours required for leading STEM activities
1.2 Describe the behaviours that an effective leader will need	Describe five behaviours that an effective STEM Leader will need and why each is necessary	
Learning Outcome 2 – Be able to develop leadership skills and behaviours		
2.1 Identify strengths in own leadership skills and behaviours	Identify at least two strengths in own leadership skills and two strengths in own leadership behaviours.	Task 2 – Set an action plan to develop STEM leadership skills and behaviours
2.2 Identify own leadership skills and behaviours that need improvement	Identify at least two leadership skills and two leadership behaviours to improve, as a STEM Leader	
2.3 Create an action plan for development of own leadership skills and behaviours	Create an action plan for the development of own leadership skills and behaviours through STEM activities	
2.4 Develop leadership skills	Act to improve at least two leadership skills and two leadership behaviours during the course	Task 9 – Reflect on your action plan to develop STEM leadership skills and behaviours

Unit 2 – Understanding how to access opportunities in STEM

Assessment Criteria	Minimum action required	LER Task
Learning Outcome 1 – Understand opportunities in STEM		
1.1 Outline opportunities in STEM related fields	Outline three local, two national and one international job opportunity in STEM, including: <ul style="list-style-type: none"> • A brief job description • Skills and behaviours needed to do each job role • Experience, qualifications and/or courses of study needed for each job role 	Task 3a – Outline the opportunities in STEM Task 3b – Pursuing opportunities in STEM
1.2 Map own interests, skills and behaviours against the opportunities that are available in STEM	For each identified opportunity, suggest ways in which own interests, skills and/or behaviours might match the requirements of the opportunity	
1.3 Outline training and learning opportunities in STEM	Outline at least three training and/or learning opportunities in STEM, including at least one of each: <ul style="list-style-type: none"> • At college, • At university • In Apprenticeships 	
Learning Outcome 2 – Understand challenges in STEM		
2.1 Explain barriers to accessing opportunities in STEM	Explain one potential barriers that could reduce access to STEM opportunities for each of the following: <ul style="list-style-type: none"> • Availability of opportunities • Knowledge of opportunities • Stereotypes and traditional routes to employment 	Task 4 – Overcoming challenges to accessing STEM opportunities
2.2 Explain how barriers to STEM involvement could be overcome	Explain ways in which identified barriers to involvement in STEM opportunities could be reduced or overcome	

Unit 3 – Plan, lead and evaluate STEM activities		
Assessment Criteria	Minimum action required	LER Task
Learning Outcome 1 – Understand the importance of safety when leading STEM activities		
1.1 Explain the importance of planning and leading STEM activities that are safe	Explain why it is important that STEM activities are planned and led with participant safety as a priority	Task 5 – Identifying risks in STEM activities
1.2 Describe the use of risk assessments in planning and leading safe STEM activities	Describe why risk assessments are important in order to plan and lead safe STEM activities	
1.3 Identify risks with a given STEM activity	Identify at least three risks associated with a STEM activity, event or interaction that is being led	
Learning Outcome 2 – Plan a STEM activity		
2.1 Plan a STEM activity	Plan a minimum of two 15-minute STEM activities, events or interactions	Task 6 – Plan, lead and evaluate a STEM activity
2.2 Outline how to change the level of challenge of an activity	Outline at least one way that the activity, interaction or event can be changed to: <ul style="list-style-type: none"> • Make it more challenging for participants • Make it less challenging for participants 	
2.3 Select a challenge in STEM to lead an activity on	Select one challenge in STEM that the planned activity, event or interaction aims to overcome and give two reasons for selecting the challenge	
Learning Outcome 3 – Be able to lead a STEM activity		
3.1 Lead a STEM activity	Lead a minimum of one 15-minute STEM activity, event or interaction (observed and assessed by the tutor)	Task 6 – Plan, lead and evaluate a STEM activity
	Lead a minimum of 4 hours of STEM activities, events or interactions	
3.2 Use effective communication when leading a STEM activity	Use at least three verbal and three non-verbal communication methods during a STEM activity	
3.3 Set ground rules for participants	Set two ground rules effectively on at least one occasion	
3.4 Adapt STEM activities	Adapt the level of challenge of an activity, event or interaction on at least one occasion	
3.5 Encourage participants to explore opportunities that are available in STEM	Encourage participants to explore the range of opportunities that are available in STEM	

3.6 Conclude a STEM activity effectively	Conclude a STEM activity, event or interaction effectively to include: <ul style="list-style-type: none"> • A recap of the activity • Obtaining feedback from participants 	
Learning Outcome 4 - Be able to evaluate a STEM activity		
4.1 Evaluate a STEM activity	Evaluate the STEM activity, event or interaction that has been led	Task 6 - Plan, lead and evaluate a STEM activity
4.2 Use the evaluation of a STEM activity to plan improvements to own STEM leadership skills and behaviours	Using the evaluation, identify one way to improve own STEM leadership skills and behaviours	Task 9 - Reflecting on your action plan to develop STEM leadership skills and behaviours

Unit 4 - Understanding how to run a STEM activity club in your community

Assessment Criteria	Minimum action required	LER Task
Learning Outcome 1 - Considering STEM activity clubs		
1.1 Describe the ways that a STEM club could be offered within your community	Describe three ways that a STEM club could be offered in your community* and identify who your participants would be for each. *Community includes your school/organisation, extra-curricular, primary schools, outside of your school/organisation, and so on.	Task 8 - Create a plan to run a STEM club
1.2 Describe the benefits of STEM clubs	Describe one benefits of a STEM club for each of: <ul style="list-style-type: none"> • The participants • The school/organisation • You as the STEM Leader 	
1.3 Outline the opportunities and challenges associated with running a STEM club	Outline: <ul style="list-style-type: none"> • potential challenges that could be encountered when running a STEM club • potential opportunities that could arise from a STEM club 	
Learning Outcome 2 - Planning to run a STEM activity club		
2.1 Create a plan for a STEM club	Create a plan for a 6-week STEM club to include: <ul style="list-style-type: none"> • Deciding on how and when it will be delivered • Who the target participants will be • An outline of the activities that would be delivered each week 	Task 8 - Create a plan to run a STEM club
2.2 Explain how the STEM club be promoted to people	Explain two ways that the STEM club could be promoted to people at your school/organisation	

STEM *Leaders*

To find out more about how our leadership qualifications can help your organisation build a community of STEM leaders, please get in touch!

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