Specification

Level 1 Qualification for Leading Activities in STEM

The STEM Leader Programme

Level 1 Qualification for Leading Activities in STEM

Award Information

Objective:

The Level 1 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 in STEM activities, encouraging them to explore how to develop their leadership skills and work effectively as a team, to achieve STEM related goal.

In addition, they will also celebrate achievements in STEM by identifying its impact locally, nationally and globally.

On completion of the award, the STEM Leader will be able to plan, lead and evaluate activities, events and interactions which understand the challenges that STEM faces and to promote opportunities in STEM.

This qualification is open to anyone aged 11 years upwards and there are no prior entry requirements.

The approximate completion time is 26 hours.

Minimum age on course start date	11 years old
Pre-requisites	None
Level of supervision during course	Direct supervision
Level of supervision once qualified	Direct supervision
Total Qualification Time (TQT)	26 hours
Tutored time, including assessment time (GLH)	13 hours
STEM leadership hours	4 hours (see the demonstration of leadership section below for more information on this)
Credits	3 credits
Quan code*	603/7896/7

*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 LO2 – AC 2.1
Task 2 The power of teamwork in STEM	Assessment table for Task 2	Unit 1 LO3 – AC 3.1, 3.2 & 3.3
Task 3 Part A – Exploring the impact of STEM Part B – The UK's influence on STEM	Assessment table for Task 3	Unit 2 LO1 – AC 1.1, 1.2, 1.3 & 1.4
Task 4 Identifying risks in STEM activities	Assessment table for Task 4	Unit 3 LO1 – AC 1.1 & 1.2
Task 5 Plan, lead and review a STEM activity	Assessment table for Task 5	Unit 3 LO2 – AC 2.1 LO3 – AC 3.1, 3.2, 3.3, 3.4 & 3.5 LO4 – AC 4.1
Task 6 STEM Activity Leadership Log	Sign off the STEM Activity Leadership Log	Unit 3 LO3 – AC 3.1
Task 7 Using STEM activities to develop your leadership skills and behaviours	Assessment table for Task 7	Unit 1 LO2, AC 2.2 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 1 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 1 Qualification for Leading Activities in STEM

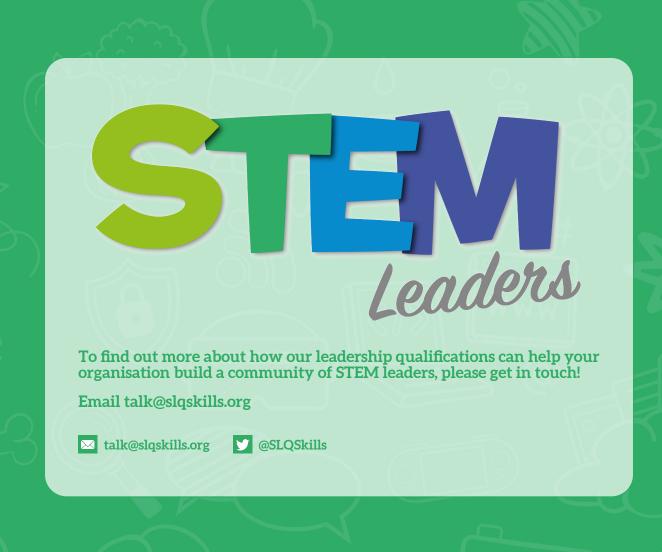| Unit title and outline	Guided Learning Hours (GLH)		Directed Study	Total Qualification Time	Credits
	Teaching Time Contact time with tutor, acquisition of knowledge and understanding, tutor-led interaction, learning and teaching	**Assessment time** Completion of the Learner Evidence Record by the Tutor/Assessor	**Independent Learning** Developing skills, consolidating knowledge and understanding, planning, practice, reflection, research and study time		
Unit 1 – Establishing skills and behaviours for STEM leadership	2 hours	1 hour	2 hours	26 hours	3
Unit 2 – Understanding how STEM activities can promote STEM	3 hours	1 hour	3 hours		
Unit 3 – Plan, lead and review a STEM activity	5 hours	1 hour	8 hours**		

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

Units, Learning Outcomes and Assessment Criteria

Unit 1 – Establishing 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 Outline the skills that are important for a leader to have	Outline three skills that an effective leader will have	**Task 1** – The skills and behaviours required for leading STEM activities
1.2 Outline the behaviours that are important for a leader to have	Outline three behaviours an effective leader will have	
Learning Outcome 2 – Be able to develop leadership skills and behaviours		
2.1 Outline how to develop own leadership skills and behaviours	Outline the ways that own leadership skills and behaviours can be improved, to include: • Identifying at least one leadership skills and one leadership behaviours that they are strong at • Identifying at least one leadership skills and one leadership behaviours that need improvement	**Task 1** (as above)
2.2 Develop leadership skills and behaviours through a STEM activity	Act to develop at least one leadership skill and one leadership behaviour as a STEM Leader	**Task 7** – Using STEM activities to develop your leadership skills and behaviours
Learning Outcome 3 – Understand how to work as part of a team in their learning community		
3.1 Describe the skills and behaviours that teams in STEM need	Describe two skills and two behaviours that can improve the chances of a team's success (e.g. leadership, cooperation, problem solving, communication, self-belief, and so on) Identify two teams that have shown these skills and behaviours	**Task 2** – The power of teamwork in STEM
3.2 Identify members of own learning community that could support the planning or delivery of a STEM activity	Identify at least three members of their learning community that could support the planning and delivery of STEM activities, events or interactions, such as: • peers • adults • family • STEM Ambassadors	
3.3 Outline how to use own skills and behaviours to contribute to a team in STEM	Outline how the STEM Leader will use their own skills and behaviours to effectively contribute to a team in STEM	

Unit 2 – Understanding how STEM activities can promote STEM		
Assessment Criteria	Minimum action required	LER Task
Learning Outcome 1 – Understand how STEM activities can be used to promote STEM		
1.1 Outline the positive impact of STEM	Outline one positive impact STEM has had for each of the following: • their own life • society • the environment	**Task 3a –** Exploring the impact of STEM **Task 3b –** The UK's influence on STEM
1.2 Outline the challenge that exist in STEM	Outline one challenge that exists in STEM State how the challenge could be overcome	
1.3 Identify how the UK has influenced developments in STEM	Identify two past, current or future examples of the UK's influence on developments in STEM, such as: • Inventions • People • Industries	
1.4 Outline how STEM activities can promote STEM	Outline one way that STEM activities can be used to promote STEM	

Unit 3 – Plan, lead and review a STEM activity		
Assessment Criteria	Minimum action required	LER Task
Learning Outcome 1 – Understand the importance of health and safety when leading a STEM activity		
1.1 Explain the importance of leading STEM activities that are safe	Give two reasons why safety is important when leading STEM activities, events and interactions	**Task 4 –** Identifying risks in STEM activities
1.2 Identify risks with a given activity	Identify at least two risks associated with a planned STEM activity, event or interaction	
Learning Outcome 2 – Plan a STEM activity		
2.1 Plan a STEM activity	Select at least one area of STEM to lead an activity in and give a reason for the selection Plan a 10-minute STEM activity, event or interaction that demonstrates the impact of STEM	**Task 5** – Plan, lead and review a STEM activity
Learning Outcome 3 – Be able to lead a STEM activity		
3.1 Lead a STEM activity	Lead a 10-minute STEM activity, event or interaction that demonstrates the impact of STEM	**Task 5** – Plan, lead and review a STEM activity
	Lead a minimum total of 4 hours of STEM activities, events or interactions	**Task 6 –** STEM Activity Leadership Log
3.2 Share the impact of STEM to participants in a STEM activity	Share at least one positive impact of selected area of STEM in the activity, event or interaction	
3.3 Encourage participants to explore the positive impact of STEM	Encourage participants to explore at least one positive impact of STEM relevant to the activity, event or interaction that is being delivered	
3.4 Use effective communication when leading a STEM activity	Use at least two verbal and two non-verbal communication methods during a STEM activity	
3.5 End a STEM activity effectively	End a STEM activity, event or interaction effectively to include: • Ending it safely • A recap of the activity	
Learning Outcome 4 – Be able to review a STEM activity		
4.1 Review a STEM activity	Review the STEM activity, that has been led and identify: • One area of success	**Task 5** – Plan, lead and review a STEM activity
4.2 Identify how the STEM activity led can improve own leadership skills and behaviours	• One area for improvement • Two ways the leading of the activity can/has improved own leadership skills and behaviours	**Task 7 –** Using STEM activities to develop your leadership skills and behaviours

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!

Email talk@slqskills.org

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STEM Leader　Level 1