

A central graphic with the text 'STEM Leaders' in a stylized font. 'STEM' is in large, bold letters: 'S' is green, 'T' is blue, 'E' is blue, and 'M' is purple. 'Leaders' is in a smaller, grey, cursive font below it. The text is set against a light green rounded rectangle. The background is a vibrant green with a large, faint 'STEM' watermark. Scattered around are numerous white line-art icons representing various fields: a rocket, paper airplane, gears, soccer ball, bones, paint palette, musical notes, cloud, lightning, fish, camera, headphones, computer monitor, calculator, magnifying glass, speech bubbles, atom, beaker, microscope, star, planet, apple, broccoli, onion, croissant, and a chef's hat.

STEM Leaders

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Level 2 Tutor Resources

2021/22

STEM
Leader

Welcome to the Level 2 Qualification for Leading Activities in STEM.

This sample tutor resource provides an example of sessions and activities linking to the units, Learning Outcomes (LOs) and Assessment Criteria (AC) which make up the Level 2 Qualification for Leading Activities in STEM.

You are encouraged to explore the activities listed in this document and choose any that you feel will support the delivery of your course, making any necessary adaptations or differentiation to tasks to best suit the needs of your learners. The activities are entirely optional, and Centres may choose to complete all or a selection of them. Alternatively, you may wish to meet the course LOs and AC using your own methods and resources.

All of the activities are resourced using simple, everyday materials such as pens, paper and sticky notes. However, many of these activities can also be delivered using digital tools and/or delivered remotely.

The 'at a glance' table below will show which session/s and tasks can support each unit, LO and AC throughout your course. You will notice suggested timings for each session, including direct teaching time as well as any additional, independent study time that may be appropriate.

All learners will gather evidence throughout the course in their Learner Evidence Records. Each task that must be completed is also mapped in the table below.

Session overview

Delivering and assessing STEM Leaders

Session	Unit and LO	AC	Activity	Learner Evidence Record link
1	Unit 1 - LO1	1.1, 1.2	Effective leadership skills and behaviours	Task 1 – Skills and behaviours required for leading STEM activities
2	Unit 1 - LO2	2.1, 2.2	Identifying strengths and improvements in leadership skills and behaviours	Task 2 – Set an action plan to develop STEM leadership skills and behaviours
3	Unit 1 - LO2	2.3, 2.4	Action planning for leadership development	Task 2 – Set an action plan to develop STEM leadership skills and behaviours Task 9 – Reflect on your action plan to develop STEM leadership skills and behaviours
4	Unit 2 - LO1	1.1	Job opportunities in STEM	Task 3a – Outline the opportunities in STEM
5	Unit 2 - LO1	1.2, 1.3	STEM interests, training and learning opportunities	Task 3b – Pursuing opportunities in STEM
6	Unit 2 - LO2	2.1, 2.2	Overcoming STEM barriers	Task 4 – Overcoming challenges to accessing STEM opportunities
7	Unit 3 - LO1	1.1, 1.2, 1.3	Being safe and assessing risk	Task 5 – Identifying risks in STEM activities
8	Unit 3 - LO3	3.2, 3.3	Effective communication	Task 6 – Plan, lead and evaluate a STEM activity Task 7 – STEM Leadership Log
9	Unit 3 - LO2	2.2, 3.4, 3.6	Changing the level of challenge	Task 6 – Plan, lead and evaluate a STEM activity
10	Unit 3 - LO2	2.1	Developing planning skills	Task 6 – Plan, lead and evaluate a STEM activity

Session	Unit and LO	AC	Activity	Learner Evidence Record link
11	Unit 3 - LO4	2.3, 3.5	Choosing STEM challenges and activities	Task 6 – Plan, lead and evaluate a STEM activity Task 7 – STEM Leadership Log
12	Unit 3 - LO2, LO3	2.1, 4.1	Developing evaluation skills	Task 6 – Plan, lead and evaluate a STEM activity Task 7 – STEM Leadership Log
13	Unit 3 - LO3, LO4	3.1, 4.1, 4.2	Leading STEM activities	Task 6 – Plan, lead and evaluate a STEM activity Task 7 – STEM Leadership Log Task 9 – Reflecting on your action plan to develop STEM leadership skills and behaviours
14	Unit 3 - LO3, LO4	3.1, 4.1, 4.2	Leading STEM activities	Task 6 – Plan, lead and evaluate a STEM activity Task 7 – STEM Leadership Log Task 9 – Reflecting on your action plan to develop STEM leadership skills and behaviours
15	Unit 4 - LO1, LO2	1.1, 1.2, 1.3, 2.1. 2.2	Running a STEM activity club in your community	Task 8 – Create a plan to run a STEM club
	Unit 1 - LO2	2.1, 2.2		Task 9 – Reflect on your action plan to develop STEM leadership skills and behaviours

Session 2

Activity	Description	Resource needs	Suggested timing	LER task link
Introduction to the session	Recap the previous session. Outline what will be covered in this session.		5 minutes	
Identifying leadership skills and behaviours	<p>In pairs.</p> <ol style="list-style-type: none"> 1. Ask pairs to continuously count out loud: 1, 2, 3; 1, 2, 3; 1, 2, 3... (where they each say a number alternately) 2. 1st Change: Do the same but replace 1 with a clap of the hands (the person who would say 1 must clap instead) 3. 2nd change: now replace 2 with a click of the fingers (keeping 1 as a clap of the hands) 4. 3rd Change: Now replace 3 with a choice agreed between learners (keep change 1 and 2 in place also). <p>This activity should be followed with a group discussion. Learners should be able to identify:</p> <ul style="list-style-type: none"> • What skills and behaviours were important for success in the activity? • Why might these be important in leadership? • Note that this is a good example of how to make an activity easier or harder. For example, to make the task harder the learners could be facing away from each other so they cannot be prompted, or count in Japanese. To make it easier, learners could have all actions changed to ones that they can complete using their hands (clap, click, wave, fist pump) 		10 minutes	
All the Good Things!	<p>Ask learners to make a list of all the things they are good at.</p> <ul style="list-style-type: none"> • Include the things that they do (skills) as well as how they do things (behaviours). • Be as specific as possible. <p>Role model a few examples, for example:</p> <ul style="list-style-type: none"> • Always being on time. • Able to think of new ideas. • Not giving up when trying new things that are hard. 	Paper, pens	15 minutes	

	<p>Some learners may say ‘I am good at baking or I am good at map reading’. Ask them to think about what are the things that they need to do to be good at these things. Baking might mean being accurate with ingredients, planning timings, or follow the recipe instructions. Map reading might be noticing their surroundings, using information to calculate distance, analysing symbols and icons, or problem solving.</p> <ul style="list-style-type: none"> • In pairs. Learners share the things that they believe they are good at. Ask learners to add to their partners list by giving things that they think they are good at. 			
	<p>Using the list created, ask learners to see if any of them fit under any of the following five headings</p> <ul style="list-style-type: none"> • Communication. • Self-belief. • Teamwork. • Self-management. • Problem solving. <p>Learners may not have anything from their list that fits under each heading. Reassure learners that this is OK. Consider if as a tutor you can add something you know a learner is good under each of the headings.</p>	Paper, pens		
Spot the difference	<p>Lead a short 5 minute task for the learners where it is deliberately highlighted what happens when leadership skills and behaviours are not very good. This will require role play from the tutor with added over emphasis of behaviours.</p> <p>Suggested task: Ask leaders to make and test a paper aeroplane. Suggestions for showing poor leadership skills and behaviours:</p> <ul style="list-style-type: none"> • Very short instructions. • Negative body language – arms crossed, looking away. • Be negative and unenthusiastic about the task. • Don’t help anyone in the team. • Blame others for when things go wrong. • Not organised with materials. • Say you don’t have any ideas on how to do it. • Avoid making any decisions. 	Tutor’s decision	15 minutes	

	<p>Clearly finish the demonstration to avoid any confusion for learners.</p> <p>Ask learners for all the things you did that were not good leadership skills or behaviours. Challenge them to come up with more than ten.</p> <p>Ask learners:</p> <ul style="list-style-type: none"> • What would they recommend you improved on? • What do they recommend you need to do to improve? <p>Link this task with the next task which requires them to reflect of what they are good at and what needs improvement.</p>			
Identifying strengths	<p>Ask learners to identify at least two strengths in own leadership skills and two strengths in own leadership behaviours. These are to be written in the Task 2 LER.</p> <p>Learners will need to:</p> <ul style="list-style-type: none"> • Describe their strengths in relation to the skills and behaviours. • When learners are wanting to improve the skills and behaviours by. • Who can help them develop the skills and behaviours. 	Access to LER	5 minutes	Task 2 – Set an action plan to develop STEM leadership skills and behaviours
Identifying areas for improvement	<p>Ask learners to identify at least two leadership skills and two leadership behaviours to improve. These are to be written in the Task 2 LER.</p> <p>To complete Task 2 learners will need to:</p> <ul style="list-style-type: none"> • How they could improve their skills and behaviours. • Include a timescale for when learners are wanting to improve the skills and behaviours by. • Who can help them develop the skills and behaviours? 	Access to LER	5 minutes	
Plenary and Independent Study	<p>Reflective questions</p> <ul style="list-style-type: none"> • How does it feel describing things you are good at? • Is it easier or harder to think of your strengths or your areas for improvement? <p>Independent Study</p> <ul style="list-style-type: none"> • Update Task 2 LER records with their strengths 		5 minutes	

Session 10

Activity	Description	Resource needs	Suggested timing	LER task link
Introduction to session	Recap the previous session. Outline what will be covered in this session.		5 minutes	
The importance of a plan	Learners write down all the things they need to do to host a film night with their friends. Could be completed on post it notes, as a mind map, or as a list. Swap with a partner and see if they have any questions about the list of actions. <ul style="list-style-type: none"> • What did you forget to plan for? What was missing? • Are they in order of needing to be completed? • Where there any differences in expectations? • Did it include all the equipment needed? • Were there any timings provided? • Was there too much detail or not enough detail? • Did it include consideration for what friends would need to do before and after the film event? i.e. bring any snacks, get a lift home, etc. 	Pen and paper Flip chart, post it notes	20 minutes	Task 6 – Plan, lead and evaluate a STEM activity
Developing planning skills	Tutor to outline how to plan a session. Include the following points: <ul style="list-style-type: none"> • Date and time of the activity. • Who will be taking part? Age, number of people, any additional needs, etc. • What is the aim of the activity? The focus or main thing that you would like participants to achieve. • What facilities do you have available or need? What type of space? Indoor or outdoor? • What equipment or resources will you need? • Any key safety concerns? • Who is the responsible person or adult supervising? • Introduction and activity start. <ul style="list-style-type: none"> ○ A description of the activity. ○ One way that the activity can be adapted to make easier or harder. • Brief description of the activity to be lead. <ul style="list-style-type: none"> ○ A description of the activity. ○ One way that the activity can be adapted to make easier or harder. 	Pens and paper. Access to LER.	10 minutes	Task 6 – Plan, lead and evaluate a STEM activity

	<ul style="list-style-type: none"> • Concluding activity. <ul style="list-style-type: none"> ○ A description of the activity. ○ One way that the activity can be adapted to make easier or harder. • Evaluating the activity <ul style="list-style-type: none"> ○ Was the activity successful? ○ Was every participant able to take part successfully? ○ How will you get feedback from participants. <p>This activity could be completed as a card sort where learners are asked to group different parts of the planning process together – Plan, Do, Review. See suggested grouping below.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="border: 1px solid green; border-radius: 15px; padding: 10px; width: 30%; background-color: #e0f2f1;"> <p style="text-align: center;">Plan</p> <p>Date and time of the activity. Who will be taking part? Age, number of people, any additional needs, etc.</p> <p>What is the aim of the activity? The focus or main thing that you would like participants to achieve.</p> <p>What facilities do you have available or need? What type of space? Indoor or outdoor? What equipment or resources will you need?</p> <p>Any key safety concerns? Who is the responsible person or adult supervising?</p> </div> <div style="font-size: 2em;">➔</div> <div style="border: 1px solid green; border-radius: 15px; padding: 10px; width: 30%; background-color: #e0f2f1;"> <p style="text-align: center;">Do</p> <p>Introduction and activity start. A description of the activity. One way that the activity can be adapted to make easier or harder.</p> <p>Brief description of the activity to be lead. A description of the activity. One way that the activity can be adapted to make easier or harder.</p> <p>Concluding activity. A description of the activity. One way that the activity can be adapted to make easier or harder.</p> </div> <div style="font-size: 2em;">➔</div> <div style="border: 1px solid green; border-radius: 15px; padding: 10px; width: 30%; background-color: #e0f2f1;"> <p style="text-align: center;">Review</p> <p>Evaluating the activity Was the activity successful? Was every participant able to take part successfully? How will you get feedback from participants.</p> </div> </div>			
	<p>Learners begin to plan one of their 15-minute STEM activities.</p> <ul style="list-style-type: none"> ○ Learners can choose to do this task individually or in pairs. ○ Focus on the ‘Plan’ section. The ‘Do’ section will be covered next session. ○ The template for recording a STEM activity plan is in Task 6 LER. 		20 minutes	Task 6 – Plan, lead and evaluate a STEM activity
Plenary	<p>Reflective questions</p> <ul style="list-style-type: none"> • What was the easiest part of today’s session? • What was the most challenging part of today’s session? • What are you looking forward to about the 15 minute activity you are planning? 		5 minutes	

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