

Course title	Tinkering in the classroom: cultivating creativity and innovation
Course code	091
Course category	STEM and digital education
Course purpose and overview	<p>“Tinkering in the classroom: cultivating creativity and innovation” is an immersive, hands-on course designed for teachers keen to integrate the dynamic world of tinkering into their teaching practice. This course provides a comprehensive framework for incorporating the principles of tinkering into your classroom, equipping you with the tools, strategies, and inspiration to foster an environment that gives priority to creativity, critical thinking, and problem-solving skills.</p> <p>This course emphasises the shift from traditional teaching to facilitating student-centred learning. You will gain a deep understanding of what tinkering entails, explore its pedagogical foundations, and discover your role as a facilitator in a tinkering-based classroom. You will develop techniques to guide and support students in their tinkering projects, helping them take ownership of their learning. By engaging in hands-on activities, you will explore fundamental scientific concepts through playful and investigative methods, covering topics such as electricity, gravity, and light.</p> <p>We also focus on fostering imagination and creativity. You will learn strategies to inspire students to think creatively and approach problems innovatively. By creating a classroom culture that celebrates experimentation and discovery, you will help students build confidence and develop essential skills for the future.</p> <p>Join us in "Tinkering in the classroom: cultivating creativity and innovation" and discover the power of hands-on learning!</p>
Course structure and content	"Tinkering in the classroom: cultivating creativity and innovation" is an immersive, hands-on course designed for teachers who are eager to bring the dynamic world of tinkering into their teaching practice. This course provides a comprehensive framework for incorporating the principles of tinkering into your classroom, equipping you with the tools, strategies, and inspiration to foster an environment that prioritises creativity, critical thinking, and problem-solving skills.
Duration	One week
Daily programme example	<p>Here is an example of the programme:</p> <p>Day 0 (usually Sunday) Arrival date Day 1 Welcome and introduction Ice breakers and team-building exercises What is Tinkering? Cultural and social activities Feedback day 1</p> <p>Day 2 Meeting the Exploratorium Why Tinkering? Pedagogical aspects The role of "facilitator"</p>

	<p>Day 3 Playing with electricity Playing with gravity Playing with light</p> <p>Day 4 Limitless imagination Valuable trinkets What if? ...imagining possible scenarios</p> <p>Day 5 Useful resources, sources of inspiration and research projects Recap of content Final test & closing Discussion of future cooperation and planning follow-up activities / Brainstorming dissemination ideas Final feedback Validation of learning outcomes and a certification ceremony</p> <p>Day 6 Social, cultural and professional interactions between participants Sociocultural activities</p> <p>Day 7 Departure date</p> <p>Programme details may be subject to amendment based on trainer, participant needs and other factors such public holidays. Changes might be needed to make up for time lost due to unforeseen or changing circumstances which might be out of the reasonable control of the hosting organisation.</p>
<p>Learning objectives</p>	<p>This course aims at supporting the participants to:</p> <ul style="list-style-type: none"> - Define the concept of tinkering and its relevance in modern education. - Identify key pedagogical theories and principles that support the integration of tinkering in the classroom. - Analyse the benefits of tinkering in promoting student engagement, creativity, and critical thinking. - Develop lesson plans and activities that incorporate tinkering to achieve specific learning objectives and standards. - Experiment with hands-on tinkering activities related to various scientific concepts, such as electricity, gravity, and light. - Collaborate with colleagues to share experiences, ideas, and strategies for effective tinkering education.
<p>Learning outcomes</p>	<p>By the end of the training course, participants will be able to:</p> <ul style="list-style-type: none"> - gain a deeper understanding of the concept of tinkering and its application in educational settings - develop pedagogical skills to effectively integrate tinkering into their teaching practice, aligning activities with educational objectives and standards. - learn how to facilitate student-centred learning experiences

	<ul style="list-style-type: none"> - acquire new knowledge and skills related to hands-on tinkering activities, such as working with electricity, gravity, and light. - learn to identify and utilize a variety of materials and resources to support tinkering activities in the classroom.
Assessment and validation of learning outcomes	<p>Participants will demonstrate their achievement of learning outcomes through:</p> <ul style="list-style-type: none"> • full participation and engagement in the activities of the course • daily feedback on the activities • pre- and post-training assessment
Target audience	Teachers of any subject, educators, and school administrative staff
Admission requirements for participants	No specific requirements
Language of delivery	English
Language level requirements for participants	B1 or above
Maximum number of participants	15

Please note that the course outlined is intended as an example only and may not necessarily be fully executed in accordance with all of its details. Our need analysis is primarily based on enrolment information, information shared at kick-off meetings, and pre-evaluation of competencies. As such, it is possible that the programme may be adjusted to better accommodate the diverse needs of participants.