4. Facilitate the activity

The activity in brief

This activity is a **1-hour**, hands-on lesson for VET students, based on Creative Learning using Tinkercad. Students work individually or in small groups on a **concrete mini-project**, supported by Create Cards (Refer to printable materials) and the teacher's facilitation. The focus is on experimenting with digital tools, connecting theory and practice, collaborating with peers and reflecting on what they have learned at the end of the session.

Target:

VET students (upper secondary or post-secondary level) who are approaching topics related to digital skills, IoT, hardware and creative design for the first time, and who can benefit from a guided, hands-on activity using online courses and 3D design tools.

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Objectives:

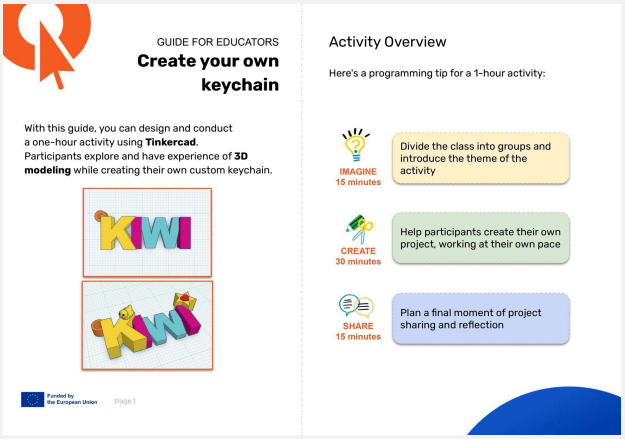
- To introduce VET students to **basic concepts of IoT and computer hardware** through a practical, exploratory activity;
- To support them in using online courses and creative tools (such as Tinkercad) to **design** simple artefacts and projects;
- To foster **collaboration, peer support , problem solving**;
- To foster **reflection** on what they have learned.

Activity's steps:

You just read about a few different tools, and you might be wondering how to concretely implement them during your lesson. Although there are different ways in which you can use them, we have put together a sample 1-hour class that is powered by the earlier-mentioned Creative Learning approach together with the different tools that you can easily download from this toolkit.

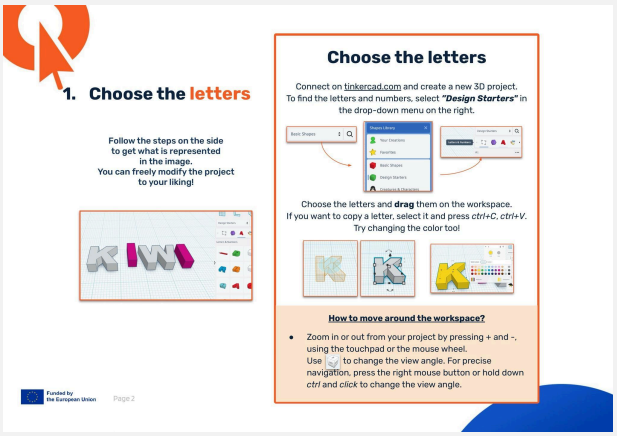
Before the activity

- ☐ Sign up for Tinkercad using your school email to access all features and manage student activities. Explore Tinkercad in advance and create a Demo project. Refer to "Section 3 – Experiment with the tool" for details.
- ☐ Decide how to divide the class in small groups.
- ☐ Print out the "Guide for Educators" cheat sheet to help you with your role as a facilitator.



"Guide for Educators" cheat sheet, available in printable materials

- ☐ Arrange the classroom setting to promote peer collaboration and experimentation. Refer to "Section 2 – Create the learning space" for details.
- ☐ Print out the "Quick start guide" and "Create cards" cheat sheets for each group to support learners' in the create phase.
- ☐ Ensure each group has access to at least one device and a set of "Quick start guide" and "Create Cards".



"Create cards" cheat sheet, available in printable materials

- ☐ Give the learners a list of design challenges to choose from.

Possible design challenges	Focus
Make something for someone you care about, share the love!	These challenges focus on self expression
Create your own superhero	
Create the avatar that represents your favourite character in science and technology	
Create a product that allows you to discover a monument from your favourite city	
Make Some Art	
Design your dream room	
Create an object from the future	
Create a product that allows you to tidy up your desk or workstation	These challenges are Dream Jobs oriented
Create a product that helps you spend less time on your smartphone	
Design your dream workstation for your future job	
Design a small "smart" device (sensor, support, alert system) that makes your work safer and more efficient.	
Create a gadget to promote your company	
Create a product that support text readability	
Design an artefacts (tool holder, checklist, label system) that would help you during your first internship.	
Create a smart upgrade for your classroom or laboratory	
Create a product that.... Invent your own challenge!	

Click here *to explore a variety of official Tinkercad lesson plans designed to engage your students in creative 3D projects and support hands-on learning across different subjects.*

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During the activity

- ☐ Start with a brief **introduction to the challenge**: explain what the materials are, where to find them, and how students can use them.
- ☐ Run a short **demo project** and actively involve students — ask for suggestions, invite them to take small steps, let their input guide some decisions. You could show this video to introduce Tinkercad.
- ☐ Emphasise that the main goal is **experimentation**, and that making mistakes is a natural and valuable part of the process.
- ☐ Allow students to work at **their own pace** while providing support when needed (e.g., some students may prefer to use the printed "Create Cards" (available in printable materials), others may prefer to explore on their own) .
- ☐ Encourage **peer exchanges** to stimulate creativity and problem-solving. If a student is stuck for a long time, prompt them to ask a peer for help.

After the activity

- ☐ Facilitate a short **reflection** session where students can share their projects and insights.
- ☐ Ask **reflective questions** to encourage deeper thinking (e.g., "What did you learn? What would you do differently next time?").
- ☐ Collect **feedback** to improve and refine future activities.
- ☐ Reach us out at **codeweek@linksfoundation.com** to share your feedback on the toolkit and suggest new themes for future materials!
- ☐ Did your students engage well with the Cisco Networking Academy courses? You can become a **Cisco Networking Academy** and teach the whole portfolio for free!

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