Activity title: The virtuel machine

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Personal skills
- ☐ Creativity
- ☐ Communication
- ☐ Collaboration
- ☒ Critical thinking

Educational skills
- ☐ Entrepreneur
- ☐ Economic
- ☒ Digital
- ☐ Sustainability

Activity summary	Intended learning outcome
The Virtual Machine utilizes the Thinglink platform for a more interactive and visual learning experience. The concept is that a collection of pictures provides a foundation for a "tour" around an object of interest (e.g. tractor, plough, fertilizer, sprayer, planter). The teacher then adds different marks and points to this tour and thereby highlights important parts of the object. It is also possible to increase the interactivity of the tour by adding videos, elaborate explanations for the important points etc. Look at thinglink.com for more info.	The platform is especially relevant for flipped learning and elements where it is important that the students can couple the right words with the right function of e.g. a farm machine. Primary learning outcomes include: • A solid vocabulary of technical terms • The ability to couple technical terms with the "real world" objects Secondary but also important: • To introduce the students to specific tasks with an object in focus (e.g. change air filter on a tractor, program the GPS etc.)

Time:	Setup and Materials:	Organizational mode:	Curriculum/level
0,5-1 h for the students. Production time is app. 4 hours including taking photos and editing.	Requires access to the internet and the online editor www.thinglink.com.	☒ Short activity ☐ Long activity ☐ Course outline ☒ Individual ☐ Pair ☐ Groups ☐ Class	This specific example is used for initial VET students, but the concept can easily be adapted to higher levels.

Personal skills:			
Creativity	Communication	Collaboration	Critical thinking
			To translate the "tour" of the object to practical applicability, require that the student/operator is able to relate to the object and task in focus.

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Educational skills:			
Entrepreneur	Economic	Digital	Sustainability
		As the platform and tour is online, it requires a basic digital skill of the student. It also stimulates an investigating/curious digital behavior, as more is happening the more you navigate around the object.	

Activity Plan	
Time	Steps
0:00-0:10	Present the tool ThingLink.com and what objects they should focus on/navigate through
0:10-1:00	The students train themselves in the objects of relevance. The teacher acts as a guide for the students who find parts of the object difficult. This part of the lesson can also be given as homework to the students, so they are prepared for practical exercises.

Tips & Tricks

The activity requires a bit of work beforehand by the teacher. The experience is that if this time is prioritized, the students also find it more interesting. Allocate this time, it is well worth it in the end.
Make sure to take good pictures and videos! Especially enough light is required to ensure quality pictures.

Sustainability development goals

SDG 4: "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all".

Target 4.4: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.

Digital Resources

An example of a simple virtual tractor tour can be found here:
https://www.thinglink.com/card/1763127552047580004

www.futurefarmer.nu