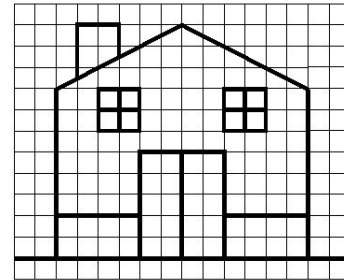
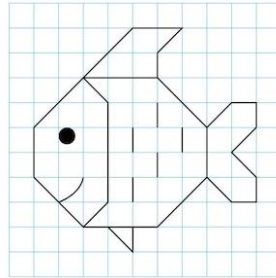
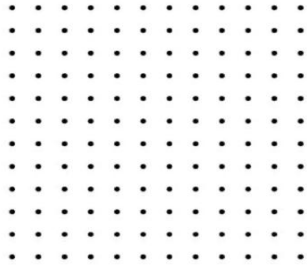


## Task Sheet: Analog programming

Provided by: Click F1



### General information of task for teacher

<b>Title of the task sheet</b>	Analog programming
<b>Targeted 21<sup>st</sup> Century Skill</b>	ICT literacy, Critical thinking & Problem solving, Communication
<b>Brief description of the competences the students will learn (Including, for example what scientific theory this is based on)</b>	Students learn how programming works by controlling the teacher with clear instructions.
<b>Specialty/Target group (If applicable)</b>	Students in closed institutions with an emphasis on MBO clusters three and four
<b>Learning outcome(s) for the vocational profession</b>	Students learn how programming works by directing a teacher using clear, specific instructions. This helps them understand the importance of clear communication and logic in programming.
<b>Tools needed for this lesson plan/ task sheet (If applicable)</b>	Large sheet or whiteboard Marker Dots placed at equal distances on the whiteboard or large sheet
<b>Approximate time to complete the task</b>	<ul style="list-style-type: none"> <li>• Total time: 15 minutes             <ul style="list-style-type: none"> <li>○ Exercise 1: 5 minutes</li> <li>○ Exercise 2: 10 minutes</li> </ul> </li> </ul>
<b>Suggested more comprehensive methodical guide for doing/carrying out the task (for the teacher or student)</b>	For a more detailed guide, the teacher can: <ol style="list-style-type: none"> <li>1. Prepare additional examples with more complex patterns.</li> <li>2. Allow students to design their own "code" or instructions.</li> <li>3. Conduct a short discussion about the comparison between the exercises and real programming languages.</li> </ol>
<b>License information (if we have a general one on the website, it is not necessary separately for each educational material)</b>	Not necessary

## Lesson plan of the task

<b>Warming up</b>	Introduce the exercise by explaining the concept of programming and linking it to the need for clear instructions. Provide an example.
<b>Explanation for the students at the start</b>	Explain that the teacher will act as "the computer" and that students need to give instructions to make the teacher perform a task. Discuss why computers require clear and specific language.
<b>Task description for the students</b>	<b>Exercise 1:</b> Students give instructions for the teacher to recreate a drawing on a board or sheet. <b>Exercise 2:</b> Students guide the teacher physically through the room to a specific goal using clear and detailed instructions.
<b>Additional activities for the students</b>	Students can design their own drawing for the teacher to replicate. Group discussion about what went wrong or what could be improved in their instructions.
<b>Extra resources for learners</b>	Not necessary
<b>Self-reflection for students</b>	Encourage students to reflect on questions such as: <ul style="list-style-type: none"> <li>• What worked well in my instructions?</li> <li>• How could I improve my communication?</li> </ul>
<b>Feedback on the solution (if applicable) / Possibility to check</b>	The teacher provides feedback on the accuracy of the instructions and discusses any errors or improvements. This can be done immediately during or after the exercise.