**This document elaborates the didactic framework based on 'curiosity'. Based on the four principles of approaching learning from curiosity; researching, putting concepts in context, experimenting and making something. The first example shows a fill-in instruction. Subsequently, concrete examples are shown based on assignments that have actually been carried out in the educational practice of a secondary school (Fioretti college Veghel Netherlands, 2022)**

**Fill in instruction for Teachers**

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| --- | --- |
| **Assignment** | What; Give a holistic description of the assignment. In your description, allow the student to fill in aspects himself (how) |
| **Context** | Give a brief description of the social or professional context in which the assignment takes place |
| **Learning out come** | Describe the physical or digital product, the cognitive outcome, and the skills and attitude to be demonstrated by the student. Name the process that supports the acquisition of knowledge, skills, attitude for making the product. Personalize the learning outcome for each student |
| **Minds on** | |
| Process/ procedural knowledge | What procedural knowledge will be acquired in this learning process |
| Declarative knowledge | What declarative knowledge will be acquired in this learning process |
| **Hands on** | |
| Technical skills | What are the technical skills needed to achieve the learning outcome |
| **Affective** | |
| Metacognitive skills | What are the affective aspects that a student is confronted with during the learning process. Wat is the metacognitive development for the student |
| **External educational network** | Which persons, entrepreneurs, professionals, companies contribute to the learning process of the student. Who does the student look up to in the school's network to learn from? |
| **Differentiation**  (don’t make it to big, don’t keep it to small) | Provide a description of how students can work on the assignment according to their own abilities, learning needs, content and pace. Don't make it too difficult for certain students and not too easy. Keep every student curious |

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| **Assignment** | Make a low energy counter display to promote a discount shopping card |
| **Context** | Sign and way finding, display design, promotional items, marketing, advertising, Technology & Design, enterprising, economics, retail stores, fitness clubs, convenience store, etc |
| **Learning out come** | Make a promotional artefact with a display function using conventional and rapid prototyping production methods  Personalized learning outcomes (what does the apprentices want/needs to learn) |
| **Minds on** | |
| Process/ procedural knowledge | Design and make process |
| Declarative knowledge | Materials, LED, Power supply, Arduino, Laser cutting software, 3D cad, etc |
| **Hands on** | |
| Technical skills | machine tools, hand tools, RP modelling tools and machinery, general use of engineering work shop |
| **Affective** | |
| Metacognitive skills | Planning, collaboration, occupational knowledge, |
| **External educational network** | Neighborhood retail shops, local business, professionals |
| **Differentiation**  (don’t make it to big, don’t keep it to small) | Provide students with easier and more difficult technical functions and solutions. Let them choose their own client.  Make a difference in programming difficulty, and use of rapid prototyping, the number of LED’s. Provide students with easier and more difficult technical functions and solutions |

**Example 1 To make something**

Afbeelding met diagram

Automatisch gegenereerde beschrijving