

Teacher's guide: Practical Task - Construction

Theme

- Brickwork
- Types of Mortar
- Combination of Mortar and Brick

Recommended Duration in Hours

- 4 hours



Introduction

This task is based on tasks 4: Design for Disassembly and 7: Design a brick wall.

The apprentice constructs a small test wall, experimenting with different combinations of bricks and mortar. In doing so, the apprentice gains practical experience in working with these materials.

Preparation

- The teacher must ensure the necessary materials for the chosen test wall are ordered, including a functional mortar with a compressive strength of 5 N/mm², such as Weber FM 5 or equivalent.
- The teacher needs to organize where the individual test walls can be built and placed for maximum exposure.
- The teacher should be familiar with how selected types of mortar are mixed to ensure the proportions of mortar fractions are precise.

Learning Objectives

- The apprentice can use different types of mortar for masonry.
- The apprentice can describe the experience of working with different types of mortar.
- The apprentice can determine the best type of mortar to work with.
- The apprentice can execute a small construction divided into several smaller sections.
- The apprentice can choose the correct type of mortar based on drawings and descriptions.
- The apprentice can mix selected types of mortar.
- The apprentice can describe how selected types of mortar are mixed.
- The apprentice can describe the amount of binder in selected types of mortar.

Lærervejledning: 3.1.1 Materialer og kombinationer

Content and Purpose

In this task, the apprentice works with different types of mortar, gaining experience with the properties of the selected mortar types during masonry.

Proposed Teaching Plan

Teacher's Presentation (10 min.):

- The teacher introduces the teaching element, showing examples and explaining the different combinations of bricks and mortar the apprentices will perform.

Construction of Mock-ups (3 hours 25 min.):

Task sheets with instructions, reflections, etc.

- Apprentices plan the types of brick and mortar combinations to include in the test wall.
- Apprentices build the test wall.
- Apprentices answer questions in the task.

Recap Session (25 min.):

- Apprentices present findings from their task.

Later, Task 9: Demolition Task will be performed.

Differentiation

Differentiation can be achieved by allowing apprentices to work in groups, making the teaching process more efficient as multiple individuals can contribute to building and demolishing, thus shortening the duration of the teaching element. Highly skilled apprentices can be challenged by incorporating variations like staggered bricks, different bond types, etc.

Feedback and Evaluation

The teacher provides feedback to the apprentices during the presentation of their task responses.

