

# New Primary of Lindegårdsskolen

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## INTRODUCTION

Our project is a proposal for a new primary school in Lyngby- Taarbæk municipality. In this proposal our focus has been to optimize the building, focusing on the sustainability and the indoor climate, so that the amount of energy used, is reduced to a minimum. Along with this, we have to make the building as functional as possible, since the school is not only used in school purposes, but will also be used by the public in the afternoon and the like.

## METHOD

To accommodate the needs for the project, we have had to combine design with new technology. On the roof we have solar panels, which can deliver the necessary electricity, and a solar heating system for heating up all the water in the building. On the first floor is almost all the rooms supplied with skylight, so that the need of electric light is almost reduced to zero in the daytime.

The size of the windows in each room is optimized by their orientation, so that the need of cooling is reduced. To reduce the use of drinking water as much as possible, the rainwater is collected in a tank below the ground, ready touse for toilets and a like.

To reduce the need of electric light, we have simulated every room in Velux Visualizer to optimize the daylight factor, without increasing the need of cooling the rooms.

## FINAL PROJECT

In the end, we'll end up with a new primary school, in more ways than just one. New materials, innovative constructions, room layout and the whole idea of, that every inner wall can be removed, are all contributed to make a building as sustainable as possible.