



# Description of the learning activity

## Assignment: The installations of my student residence

*Assignment description: What sustainable solutions exist and what is possible in my student residence?  
Group assignment and individual*

**The Learning activity takes place in school**

**Course/subject :**

**Topic**

**Duration:**

<b>C O N T E N T S</b>	<p><b>Description of students</b></p>
	<p><b>Introduction</b></p> <p>Gas is no longer possible in new-build homes and your student residence is also not connected to a gas connection. Which installations are there in your student residence? You research these and make choices for your design.</p>
	<p><b>Learning goals:</b></p> <p>You will learn about the possibilities in the field of sustainable installations. You will learn about its existence and global workings. They have knowledge of the advantages and disadvantages of the different systems.</p>
	<p><b>Content and methode</b></p> <p>You will investigate which sustainable installations exist per installation type. You investigate the properties, the effect and the advantages and disadvantages.</p> <p>Work in PowerPoint, each chapter 1 page. Make sure you have a neat home page, on which your name is project, assignment, teacher and your own name.</p> <p><b>1. Heating (group):</b></p> <p>Collect as many heating types as possible. You show this by means of a photo and add (20 pieces p.p):</p> <ol style="list-style-type: none"> <li>How it works</li> <li>whether the device is sustainable (uses sun, water, wind) or traditional (uses fossil fuels) and</li> <li>whether it is a release system (the system that releases the heat to the room) or source system (the system that makes the heat).</li> </ol> <p>Tip: Use Google with search terms ways to heat your home or types of heating systems.</p> <p><b>2. Sewer and drinking water (group):</b></p> <p>With the help of the video below you can make a collage on paper A1 of the course of water from tap to tap. This for both drinking water and rainwater. Describe the steps in short words and find a picture. Start with the clean water that comes out of the tap and end with that. Also indicate the order of the steps with arrows or numbers.</p>



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[https://www.youtube.com/watch?v=fB2Y\\_3K1jEY&list=PLZ-b-OrbFFZRouDRwmJxDeND5\\_cII31dp&index=11&t=0s](https://www.youtube.com/watch?v=fB2Y_3K1jEY&list=PLZ-b-OrbFFZRouDRwmJxDeND5_cII31dp&index=11&t=0s)

### 3. Ventilation (individual):

You will learn about the need for ventilation and then work individually with the four systems for ventilation. Indicate how your ventilation in your student residence will be arranged. Put your floor plan from assignment 1.05 in the middle and put:

1. what type of system it is (A, B, C or D), only 1 system can be possible.
2. which chambers have a valve for drainage? Indicate this with an arrow and photo as below.
3. Which rooms have a supply grid in the window? Indicate this with an arrow and photo as below.

### 4. Electricity (group):

You make a photo collage of all kinds of electrical power generation. Put the description with each picture (how does it make electricity) and indicate what the disadvantage could be (3 species per person).

Tip: use google with search terms ways to generate electricity yourself.

### 5. Choices for your student residence

You make all the choices for heating and electricity individually in your student residence in Sketchup.

Make 4 floor plans containing (floor plan seen from above if you leave the roof off):

1. You draw in your model the choice for heating, namely your chosen source system and delivery system.
2. You draw the meter cupboard.
3. You draw the ventilation box.

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**SDG's :**

SDG's 13 Climate action SDG 11 Sustainable cities



**How are SDG's visible and implemented in learning activity ?**

SDG 13

Gas is no longer possible in new-build homes



# Description of the learning activity

	<p>SDG11 How to design a sustainable students home.</p>
<b>F O R M</b>	
	<p><b>Feedback and evaluation :</b></p> <p>You create 1 PowerPoint with all the sheets and a cover page, both the sheets you made together and the ones you made yourself. Submit it as PDF in at 1.08.</p>
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