

Activity 4.2 How is the temperature distributed inside your house model ?

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The Problem:

It is easy to observe that inside a heated room different places are not at the same temperature. How can we identify places at higher temperatures?

Learning aims:

The main goal of such an activity is in understanding that variations of temperature are present inside the house in places at different distances from the heater and at different heights from the floor.

Materials:

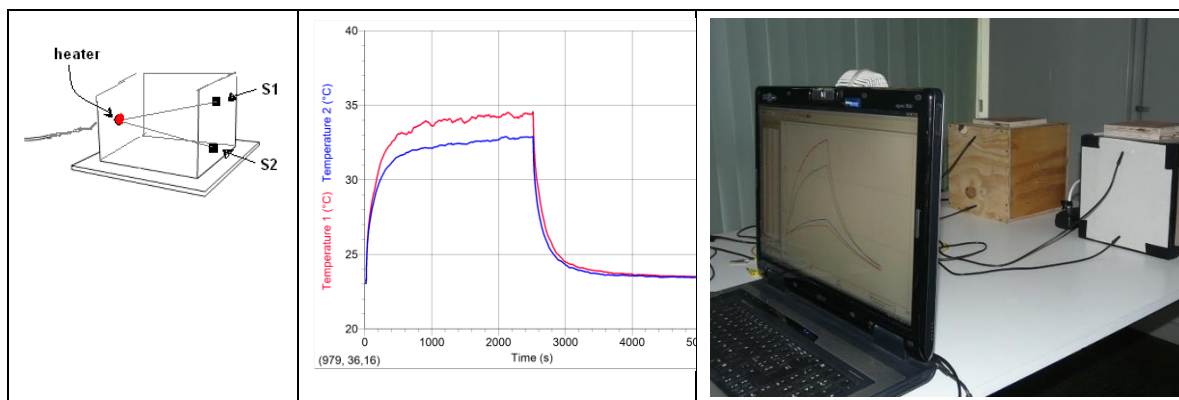
Materials are the same as Activity 1_1 , yet for each group of students two temperature sensors are necessary.

Suggestions for use:

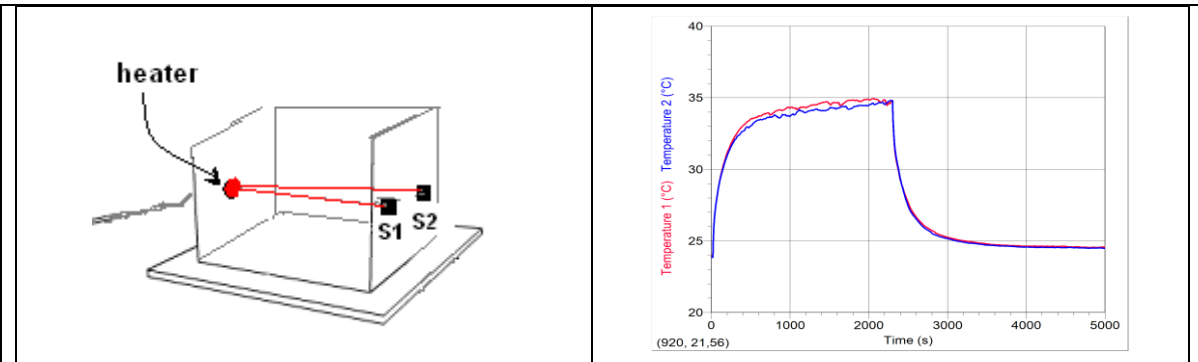
Students are requested to analyse temperature distribution inside the house. A preliminary discussion will guide students to identify the factors that affect the temperature in a given position. Distance from the heater and height from the floor can be identified as relevant factors.

Students are requested to design appropriate experiments that take into account the control of the relevant variables.

- **Two sensors at the same distance from the heater and at different height from the floor**



- **Two sensors at the same distance from the heater and at the same height from the floor**



Possible questions:

- What can you say about the efficiency of a heater mounted high on the wall of a room
- Can you infer a mechanism explaining why cool air goes upward?