Checklist School Building

School:.....

Group (names of all pupils):.....

.....

.....

Taker of the minutes: .....

Tutor of the group (name, position):.....

Dialogue partner (name, position): .....

Date: .....

Find out if our school is “warmly wrapped“ and therefore has a favourable energy consumption. Go through the school with the caretaker or your tutor. Keep in mind that differnt parts of the school might be constructed in different ways.

Answer the questions in sequence! There is no need to go and see all the rooms – just choose some that you want to examine!

Draw the rooms that you examined into the plan of the school. If possible take pictures that are in line with your topic!

1 Year of construction of the building

Ask the caretaker, the secretary or the tutor of your group:

a) When was the school built? .....

b) Are there (parts of the) building(s) that were constructed later? Which are and when were they built?

.....

c) When was the last time that the façade was renovated? .....

d) When was the last time that the windows were renovated/changed? .....

e) Is there an energy performance certificate for the school? Get a copy! .....

2 Outer walls

A lot of heat energy can get lost due to badly insulated outer walls. Examine the outer walls of our school or ask the caretaker:

a) Are the outer walls insulated and if they are, how think is the layer? .....

.....

.....

.....

b) Are the outer walls cold to the touch from the inside in winter? Check this in several different rooms (if necessary take the temperatures) and describe your observations:

.....

.....

.....

.....

3 Windows and doors

Heat energy can also escape outside through windows and doors. Find out the condition of the windows and doors in our school building:

a) Are there any windows that are only single-glazed? Where? .....

.....

.....

b) Are there any windows or doors that are cold to the touch from the inside in winter (if necessary take the temperatures)?.....

.....

.....

c) Are there any windows or doors that are leaky/broken?.....

.....

.....

d) Are there windows or doors that are constantly open? .....

.....

.....

e) Is there a draught in any of the rooms? .....

.....

.....

4 Basement ceiling and top ceiling

Warm rooms of the school should be insulated upwards and downwards. Examine the situation in our school.

The basement ceiling is the boundary between an unheated cellar and the heated rooms above. If the cellar is heated examine its floor instead.

The top ceiling is the boundary between the heated rooms on the top floor and the unheated or roof above.

a) Is the basement ceiling insulated and if it is, how thick is the layer?

.....

.....

b) Are the floors of the lowest heated rooms cold to the touch from the inside in winter? Check this in several different rooms (if necessary take the temperatures) and describe your observations:

.....

.....

.....

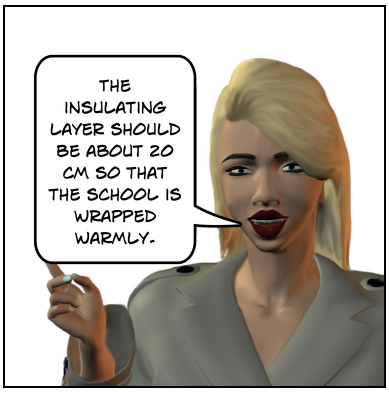
c) Is the top ceiling insulated and if it is, how thick is the layer?

.....

.....

.....

.....



d) Are the ceilings of the top heated rooms cold to the touch in winter? Check this in several different rooms (if necessary take the temperatures) and describe your observations:

.....

.....

5 Percentage of the surface

In order to be able to estimate the overall condition of the building you should know about the percentage of the building parts you already examined in relation to the outer limits of the warm rooms – for a lot more heat energy gets lost through a big surface that is badly insulated than through a smaller surface which is as badly insulated. Estimate the surfaces of the corresponding building parts.

a) First agree on how you would like to proceed:

.....

.....

.....

.....

.....

b) Now estimate the surfaces and calculate the percentage in relation to the sum of the surfaces:

Outer walls	.....m²	.....%
Windows	.....m²	.....%
Doors (only exterior doors)	.....m²	.....%
Basement ceiling	.....m²	.....%
Top ceiling	.....m²	.....%
Sum of the surfaces	.....m²	..... 100 %

6 Internet research

Get information on how the energetic condition of schools can be evaluated and improved. Some internet addresses, where you can find information: www.umweltschulen.de/energie/pudelmuetze.html and www.umweltschulen.de/audit/comenius2006/projekt_waerme.htm

Write down interesting information and the respective sources as well (internet addresses).

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

7 Evaluation and presentation

Now try to evaluate the energetic condition of our school building. Justify your assessment in such a way that teachers and pupils understand it!

Also discuss this with the groups that did heat energy and room temperatures and also include those data listed in the school's energy performance certificate.

It is good...	It is not good...
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

Discuss what we could do better! Justify your suggestions!

Also think about what else we should find out in order to evaluate the energetic condition of our school more extensively and thus being able to phrase suggestions more specifically.

.....

.....

.....

.....

.....

.....

.....

.....

Think about how you would like to present your results!

Build a model for example of a "low-energy house" and be ready to explain this to younger pupils.

Prepare a paper for example which addresses the adults, explains the situation to them and asks them to support any energy-saving. In order to illustrate things even better use a programme for presentations or your "low-energy house".

Develop more ideas for presentations on your own!

.....

.....

.....

Now get ready to present your results!