



Welcome to the SERT Temperature Survey Activity

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If you have any questions please contact the SERT Office
240-314-1090 or SERT@mcpsmd.org



Adult Sponsor Guide:

Procedures and Considerations for a Building Temperature Survey

Purpose: To provide a relatively comfortable, energy efficient learning environment.

- First and foremost: discuss conducting a temperature survey with your administration and building service staff.
- Make sure you have their full support and assistance.
- Inform your school staff about the temperature survey. (see sample email)
- Contact your SERT Facilitator and inform them of your planned survey.
- When planning your survey, pick a day when outside temperatures are in the normal range and not at an extreme for the winter heating or summer cooling season.
- Inform school staff on the day of the survey to please not open windows or block ventilation units.
- Follow room temperature data gathering procedures sheet.
- When complete, have the SERT team tabulate the data as shown in the example and present results to your administration, building service manager and SERT Facilitator.

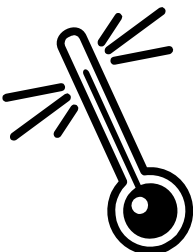
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Instructions for Energy Data Collection *

1. Students should inform their teacher they will be involved with SERT duties.
2. Students should report to the SERT Team Sponsor's Classroom.
3. Pick up a "SERT Team" Hall Pass, Map, Data Chart and a Thermometer.
4. Students should look at the hall pass. The number on the pass matches a location on the map. Go to those rooms that are assigned to the pass number. (look at the map legend).
5. Enter the classrooms quietly.
6. Point the thermometer 6 to 12 inches above the surface of 3 desks in the middle of the room. (do not point at a person) Average the readings. This should give you an average for the room. Students should record this in their data table.
7. If the classroom has a thermostat, take a reading with the thermometer no more than 12 inches above the wall surface at the thermostat. Record this in your data table.
8. Look at the windows. If they are open, write that down in the comments column.
9. Look at the ventilation unit. If it is blocked with books or other items, write that down in the comments column.
10. Students should gather data for all of the rooms in their area.
11. Students should return to SERT Team Sponsor's classroom.
12. Students should put the thermometers, passes, data charts and maps back into the box.
13. Next Steps: Tabulate and analyze the data and if necessary work with your building service team to develop a plan.



*The instructions found here are for secondary students. Elementary green teams can adapt this activity to an appropriate level by increasing support and supervision.

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Sherwood High School Study Sample

On November 20, 2007, Green Team volunteers took the temperature of every accessible room in the school. Temperatures were taken between 9:15 and 10:00 am. The outside temperature ranged from 46 – 51 degrees from 9:00 to 11:00 am. The results of the survey are as follows:

The hottest room was room B208. The recorded temperature was 97 degrees. The room has no windows and is generally extremely hot on a daily basis.

Only seven rooms in the building were below 70 degrees. The coolest of these is the gym at 67 degrees.

The rooms in the chart below are those that require immediate adjustment. These rooms had temperatures ranging from 74 to 97.9 degrees. Some of these teachers indicated that they hoped adjustments would be made soon as they are very uncomfortable. Five of these teachers opened the windows to cool the room even though we had asked that the windows remain closed for the survey (I assume it got so hot that it was unbearable with the windows closed).

Rooms with excessive heat

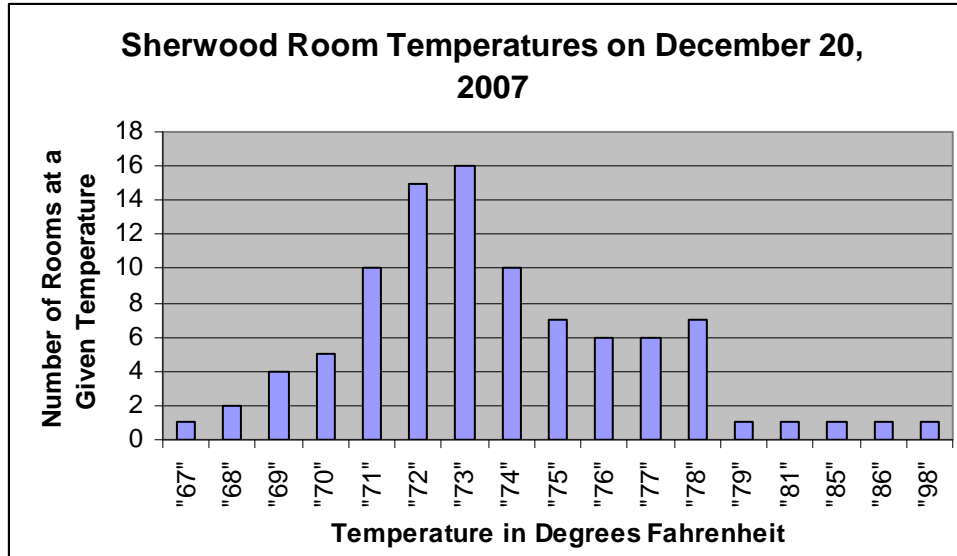
Room Number	Wall by the Thermostat	Comments	Room Number	Wall by the Thermostat	Comments
208	97.9		118	76.3	
221	85.9		139	76.1	
238	85.1		151	75.9	
		window opened	294	75.9	
296	80.5	opened			window opened
		window opened	262	75.8	opened
298	79.4	opened	237	75.6	
132	78.3				window opened
251	78.3		242	74.9	opened
271	78.3		261	74.9	
122	78		283	74.9	
		window opened			books on heater
258	78	opened	125	74.8	
146	77.8		116	74.6	
241	77.6		264	74.6	
250	77.4		108	74.5	
260	77.4		148	74.2	
204	77.3		248	74.2	
208	77.3		110	74.1	
120	76.6		252	74.1	
253	76.6		128	74	
			215	74	

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The distribution of the room temperatures is shown below:



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**Sherwood High School Room
Temperature Data on
November 20, 2007**

Room	Temp	Comments
208	97.9	
221	85.9	
238	85.1	
296	80.5	window opened
298	79.4	window opened
132	78.3	
251	78.3	
271	78.3	
122	78	
258	78	window opened
146	77.8	
241	77.6	
250	77.4	
260	77.4	
204	77.3	
208	77.3	
120	76.6	
253	76.6	
118	76.3	
139	76.1	
151	75.9	
294	75.9	
262	75.8	window opened
237	75.6	
242	74.9	window opened
261	74.9	
283	74.9	
125	74.8	books on heater
116	74.6	
Room	Temp	Comments
264	74.6	
108	74.5	
148	74.2	
248	74.2	
110	74.1	
252	74.1	

128	74	
215	74	
138	73.8	books on heater
232	73.8	window opened
272	73.8	
273	73.8	books on heater
228	73.4	
233	73.4	
136	73.3	books on heater
246	73.3	
249	73.2	
202	73.1	
135	72.9	
243	72.9	
115	72.8	books on heater
150	72.8	
210	72.8	
285	72.7	
229	72.6	
247	72.6	
109	72.5	
130	72.5	
268	72.4	
282	72.4	window opened
239	72.3	
278	72.3	
	72.1	
Room	Temp	Comments
217	72.1	
230	71.9	
281	71.9	
128	71.8	
257	71.8	books on heater
117	71.7	
266	71.7	
292	71.7	
141	71.6	books on heater
123	71.5	

119	71.4	
211	71.4	
255	71.3	books on heater
259	71.3	
293	71.1	window opened
107	70.9	
226	70.9	
245	70.8	
143	70.6	window opened
263	70.6	
111	70.4	
147	70.4	
212	70.4	
219	70.1	
244	70.1	
213	69.3	
218	69.1	windows opened
149	68.9	
265	68.6	
137	67.8	
145	67.7	
276	67.4	gym

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Department of Facilities Management
School Energy & Recycling Team Program
2096 Gaither Road, Suite 200
Rockville, MD 20850
240-314-1090

Notes:

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