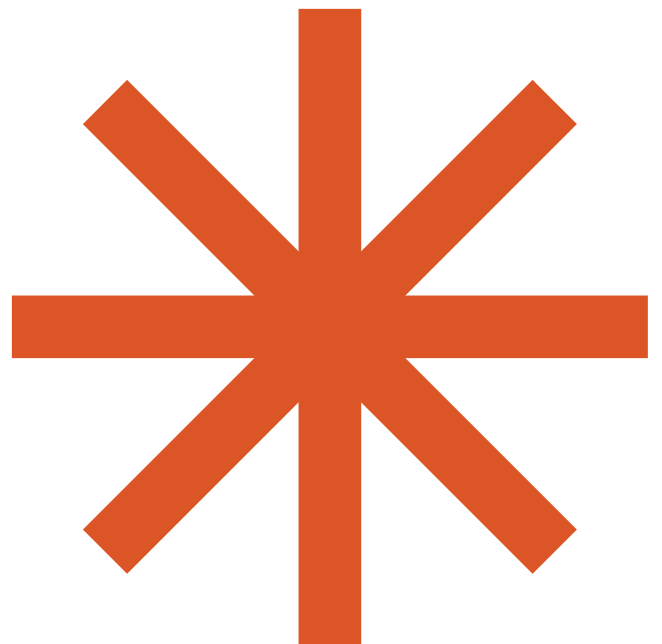


# Lifestyle Audits

Energy





## Worksheets Energy Audits



There are **6** Energy Audits to complete. Each audit is broken down into three stages: the question stage, the rating stage and the reporting stage.

Resources have been provided to help you in completing, tracking, and evaluating your progress through the energy lifestyle audits.

1. Energy Audit Status Checklist
2. Energy Audit Notes
3. Energy Audit Worksheets

As you complete each worksheet, you may enter your responses into the audit program on the program web site to have the program calculate your score automatically. Otherwise you may enter your findings directly onto the following energy audit worksheets and then manually calculate your scores.

**Note:** To calculate your school's total scores and overall ratings, see the School Ratings Calculation Worksheet included in the Lifestyle Audits package.

**Energy Audit Progress Checklist**

Energy Audit		√ Completed Audits
#1	Heating, Ventilation and Air Conditioning	
#2	Draft-Proofing	
#3	Domestic Hot Water System	
#4	Lighting	
#5	Transportation and Winter Parking	
#6	Office Equipment and Appliances	

Comments: \_\_\_\_\_

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*Energy Audit Notes*

*Heating, Ventilation and Air  
Conditioning*

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*Lighting*

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*Draft-Proofing*

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*Transportation and Winter Parking*

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*Domestic Hot Water System*

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*Office Equipment and Appliances*

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## Worksheet Energy Audit

# #1

### Heating, Ventilating and Air Conditioning

Energy Audit #1 is made up two parts, heating and cooling. The total possible score for this audit is 17 points.

#### Heat Energy

Check (✓) Yes or No to indicate your answer to each of the following questions. Each question has been assigned a point value of either 1 or 0.

**Yes**      **No**

 1

 0

1. To heat your school buildings, does the school use:

a) *solar energy*?

 1

 0

b) *natural gas*?

 0

 1

c) *electricity*?

 0

 1

d) *oil*?

 1

 0

2. Does your school use *automatic setback thermostats* to reduce room temperatures when the buildings are not occupied?

 1

 0

3. Does your school use a *computer-controlled system* for setting thermostats?

 1

 0

4. Does your school keep the thermostat(s) set at the following temperatures during the day:

a) 69 °F (20 °C) or lower for classrooms?

 1

 0

b) 65 °F (18 °C) or lower for gymnasiums and corridors?

 1

 0

c) 60 °F (15 °C) or lower for vestibules?

1     0

5. Does your school turn off the heating system's *pilot light* during the summer holidays?

1     0

6. Does your school have *coniferous trees* on the north and west sides to block cold winter winds?

1     0

7. Are electrical *space heaters* used anywhere in the school? If so, list the locations where they are found.

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**Total Heating Points**

### Cooling Energy

Check (✓) Yes or No to indicate your answer to each of the following questions. Each question has been assigned a point value of either 1 or 0.

**Yes**      **No**

 1

 0

1. Has your school installed *window awnings* to provide shade for windows on the south side of the school?

 1

 0

2. Does your school have *deciduous trees* for shading and natural cooling on the south side of the building?

If your school has air conditioning, answer the remaining questions. If your school doesn't have air conditioning, add three points to your total.

 1

 0

3. Is the air conditioning thermostat set at moderate temperatures:

a. 75 °F (22 °C) or higher in the daytime?

 1

 0

b. 85 °F (26 °C) or higher at night?

 1

 0

4. Is your school's air conditioning system shut off during evenings and on weekends when the building is unoccupied?

### Total Cooling Points

#### Scoring

Add up the total number of points for heating and cooling and enter this score in the space below.

Total Number of Points Available	Total Score
17	

Enter your total points for Energy Audit #1 here.

# Worksheet Energy Audit

# #2

## Draft-Proofing

### Entrance Doors

With your group members, go around the school and check every entrance door with the *draft detector*. (Don't forget the emergency exits from gymnasiums and auditoriums.)

Use a checkmark (✓) to indicate if each set of doors is air-tight or not. When you are finished, add up the total number of doors and the number that are air-tight (total number of Yes answers). Using the chart at the bottom of the page, convert the proportion of air-tight doors to a score out of three.

Entrance Door Location	Are the Doors Airtight? (no air is leaking around the doors)?	
	Yes	No
	<input type="checkbox"/> 1	<input type="checkbox"/> 0
	<input type="checkbox"/> 1	<input type="checkbox"/> 0
	<input type="checkbox"/> 1	<input type="checkbox"/> 0
	<input type="checkbox"/> 1	<input type="checkbox"/> 0
	<input type="checkbox"/> 1	<input type="checkbox"/> 0
	<input type="checkbox"/> 1	<input type="checkbox"/> 0
	<input type="checkbox"/> 1	<input type="checkbox"/> 0
	<input type="checkbox"/> 1	<input type="checkbox"/> 0
	<input type="checkbox"/> 1	<input type="checkbox"/> 0
<b>Total number of doors:</b>	<b>Total points:</b>	

— / —

Proportion of Air-Tight Doors	Score
0 to 1/4 (up to 25%)	0
1/4 to 1/2 (between 25%-50%)	1
1/2 to 3/4 (between 50%-75%)	2
3/4 to all (more than 75%)	3

The proportion of Air-Tight Doors equals the # of air-tight doors (yes responses) over the # of Entrance Door Locations to get your school's proportion of air-tight doors.

### Windows

Using the draft detectors from the previous question, check the windows in five rooms in your school. Try to check some classrooms, along with some other areas such as lunch rooms or school offices. Note the room location, the total number of windows, and the location of any drafty windows you find. Add up the total number of drafty windows and the number that are air-tight. Using the chart at the bottom of this worksheet page, convert the proportion of air-tight windows to a score out of three.

Room Number or Description	Number of Windows	Location of Drafty Windows	Number of Drafty Windows	Number of Air-Tight Windows
<b>Total Number of Windows:</b>		<b>Total Number of Air-Tight Windows:</b>		

\_\_\_\_\_ / \_\_\_\_\_

Proportion of Air-Tight Windows	Score
0 to 1/4 (up to 25%)	0
1/4 to 1/2 (between 25%-50%)	1
1/2 to 3/4 (between 50%-75%)	2
3/4 to all (more than 75%)	3

The proportion of air-tight windows equals the total # of air-tight windows over the total # of windows to get your school's proportion of air-tight windows.

#### Draft Proofing Scoring

The total possible score in this section is 6. Add up the total number of points you have calculated for **entrance doors** and **windows** and enter this score in the space below.

Total Number of Points Available	Total Score
<b>6</b>	

Enter the total number of points for Energy Audit #2 here.

# Worksheet Energy Audit

#3

## Domestic Hot Water System

Check (✓) Yes or No to indicate your answer to each of the following questions. Each question has been assigned a point value of either 1 or 0.

**Yes**

**No**

 1

 0

1. To heat water, does your school use:

a) *solar energy*?

 1

 0

b) *natural gas*?

 0

 1

c) *electricity*?

 0

 1

d) *oil*?

 1

 0

2. Have *low-flow shower heads* been installed on the showers in your school?

 1

 0

3. Have timers been installed on the showers in your school?

 1

 0

4. Is the water heater *thermostat* set at 120 °F (49 °C) — the lowest temperature needed to heat water adequately yet not waste energy?

 1

 0

5. Is the school *hot water pump* shut down at night, on weekends and during holidays?

 1

 0

6. Are the school's hot water pipes insulated to keep the heated water from cooling?

### Domestic Hot Water System Scoring

The total possible score in this section is 9. Add up the total number of points you have checked and enter this score in the space below.

Total Number of Points Available	Total Score
9	

Enter your total points for Energy Audit #3 here.

# Worksheet Energy Audit

# #4

## Lighting

Check (✓) Yes or No to indicate your answer to each of the following questions. Each question has been assigned a point value of either 1 or 0.

**Yes    No**

1. Does your school have energy-efficient lights in the:
  - a) gymnasium(s)?  1     0
  - b) hallways?  1     0
  - c) classrooms?  1     0
  - d) restrooms?  1     0
  - e) school office(s)?  1     0
  - f) school auditorium?  1     0
  - g) staff room(s)?  1     0
  - h) shower/locker rooms?  1     0
2. Has your school *de-lamped* four-lamp fixtures by removing two lamps? List areas where de-lamping has taken place.
   
 1     0
   
\_\_\_\_\_
   
\_\_\_\_\_
   
\_\_\_\_\_
   
\_\_\_\_\_
3. Does your school use *photocell controls* for outside security lights? These lights turn on automatically when darkness falls.
   
 1     0
4. Does your school use *occupancy sensors* to turn lights on only when someone is in a room?
   
 1     0

### Lighting Scoring

The total possible score in this section is 11. Add up the total number of points you have circled and enter this score in the space below.

Total Number of Points Available	Total Score
<b>11</b>	

Enter your total points for Energy Audit #4

# Worksheet Energy Audit

# #5

## Transportation and Winter Parking

Check (✓) Yes or No to indicate your answer to each of the following questions. Each question has been assigned a point value of either 1 or 0.

**Yes**

**No**

 1

 0

1. Does your school have enough *bicycle racks* for staff and student bicycles?

 1

 0

2. Are the vehicles used to transport students to and from school, on field trips and for sport events regularly *serviced*?

 1

 0

3. Are the tires of school vehicles regularly *inflated* to their maximum recommended levels?

 1

 0

4. On the highway, do school buses maintain a maximum speed of no more than 55 miles per hour (90 kilometers per hour)?

Answer questions five and six if public bus service is available in your city or town. If your school does not have public bus service, add 2 points to your total.

 1

 0

5. Is there frequent public bus service to your school?

 1

 0

6. Are there public bus stops near the school?

Answer questions seven to nine if your school has plug-ins for car block heaters. If your school does not have plug-ins for block heaters, add 3 points to your total.

 1

 0

7. Does your school encourage the use of *power-saver cords* for car block heaters in the school staff parking lot?

 1

 0

8. Are *automatic timers* used to control the use of electric outlets in the school staff parking lots (e.g. 15 minutes on, 15 minutes off)?

 1

 0

9. Has your school installed an *automatic thermostat switch* which will cut off the power to all plug-ins if the temperature rises above 19 °F (-8 °C)?

### Scoring

The total possible score in this section is 9. Add up the total number of points you have checked and enter this score in the space below.

Total Number of Points Available	Total Score
9	

Enter your total points for Energy Audit #5 here.

# Worksheet Energy Audit

## #6

### Office Equipment and Appliances

Check (✓) Yes or No to indicate your answer to each of the following questions. Each question has been assigned a point value of either 1 or 0.

**Yes**

**No**

 1

 0

1. If refrigerators and freezers are not *automatic defrost* models, are they cleaned and defrosted regularly?

 1

 0

2. Are the *heating coils* on the back of the refrigerators vacuumed regularly?

 1

 0

3. Are kettles and coffee makers regularly cleaned to remove deposits of *hard-water scale*?

 1

 0

4. Is *energy efficiency* considered when purchasing new office equipment or appliances?

 1

 0

5. Are refrigerators and freezers cleaned and shut off over the summer?

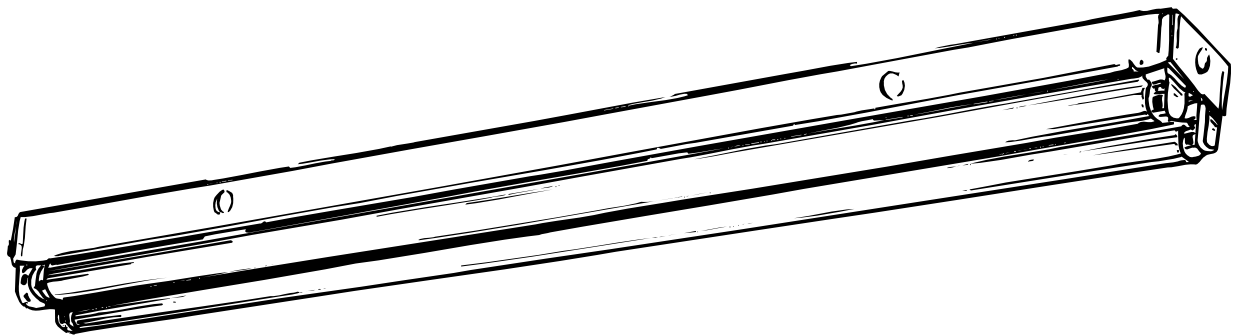
### Office Equipment and Appliances Scoring

The total possible score in this section is 5. Add up the total number of points you have checked and enter this score in the space below.

Total Number of Points Available	Total Score
5	

Enter your total points for Energy Audit #6 here.

**Next step...**



**... calculate your school's energy audit rating.**