

# DATA COLLECTION LOG

List the devices, appliances, and other items you use that consume energy. Record the data you gather on a daily basis. Calculate the cost per appliance/item for the week and the overall weekly total. Think about the monthly/yearly energy use totals. Use 6 cents per kwh (courtesy of Ft. Collins Utilities) & round time consumption to the nearest 1/2 hour.

**Appliance wattage X hours = Kilowatt Hours (Kwh)**

**Kilowatt Hours X \$.09 = Approximate Cost.**

**1,000**

\*\*\* Leave two spaces between each energy group listed. One space to show the total for that group and the other to divide the groups.

| Form of Energy | Appliance & Wattage Ratings | Monday Time Used | Tuesday Time Used | Wednesday Time Used | Thursday Time Used | Friday Time Used | Saturday Time Used | Sunday Time Used | Total Kwh or other unit | Total Cost |
|----------------|-----------------------------|------------------|-------------------|---------------------|--------------------|------------------|--------------------|------------------|-------------------------|------------|
| Elec           | Swamp Cooler 480 w          | 11.52kwh         | 11.52kwh          | 11.52kwh            | 11.52kwh           | 11.52kwh         | 11.52kwh           | 11.52kwh         | 80.64 kwh               | \$4.84     |
| Elec           | Swamp Cooler 480 w          | 5.76 kwh         | 5.76 kwh          | 5.76 kwh            | 5.76 kwh           | 5.76 kwh         | 5.76 kwh           | 5.76 kwh         | 40.32 kwh               | \$2.42     |
| Elec           | Refrigerator 235 w          | 1.41 kwh         | 1.41 kwh          | 1.41 kwh            | 1.41 kwh           | 1.41 kwh         | 1.41 kwh           | 1.41 kwh         | 9.87 kwh                | \$0.59     |
| Elec           | Microwave 1308 w            | -                | .33 kwh           | -                   | .08 kwh            | -                | .65 kwh            | -                | 1.06 kwh                | \$0.06     |
| Elec           | Iced Tea Pot 726 w          | .18 kwh          | -                 | -                   | .18 kwh            | -                | .18 kwh            | -                | 0.54 kwh                | \$0.03     |
| Elec           | Washer 840 w                | .49 kwh          | -                 | -                   | -                  | -                | .49 kwh            | -                | .98 kwh                 | \$0.05     |
| Elec           | Dryer 660 w                 | 6.6 kwh          | -                 | -                   | -                  | -                | 6.6 kwh            | -                | 13.2 kwh                | \$0.79     |
| Elec           | Computer Sys. 720 w         | 2.5 kwh          | 3 kwh             | 1.4 kwh             | 2.2 kwh            | 1.8 kwh          | 4.3 kwh            | 7.2 kwh          | 22.4 kwh                | \$1.34     |
| Elec           | Clock Radio 12 w            | .29 kwh          | .29 kwh           | .29 kwh             | .29 kwh            | .29 kwh          | .29 kwh            | .29 kwh          | 2.03 kwh                | \$0.12     |
| Elec           | Stereo 191 w                | .96 kwh          | .57 kwh           | -                   | -                  | .57 kwh          | 1.33 kwh           | 1.15 kwh         | 4.58                    | \$0.27     |
| Elec           | Television 160 w            | -                | .16 kwh           | -                   | -                  | .48 kwh          | -                  | .48 kwh          | 1.12 kwh                | \$0.07     |
| Elec           | Phone 3.3 w                 | .08 kwh          | .08 kwh           | .08 kwh             | .08 kwh            | .08 kwh          | .08 kwh            | .08 kwh          | .56 kwh                 | \$0.03     |
| Elec           | Fan 252 w                   | 2.01 kwh         | 2.01 kwh          | 2.01 kwh            | 2.01 kwh           | 2.01 kwh         | 2.01 kwh           | 2.01 kwh         | 14.07 kwh               | \$0.84     |
| Elec           | Stove 104000 w              | 5.2 kwh          | 7.8 kwh           | 6 kwh               | -                  | 10.4 kwh         | 10.4 kwh           | -                | 39.8 kwh                | \$2.39     |
| Elec           | Dishwasher 3550 w           | 2.66 kwh         | -                 | 2.66 kwh            | -                  | -                | -                  | 2.66 kwh         | 7.98 kwh                | \$0.48     |
| Elec           | Lights 6 @ 60 w             | .63 kwh          | .72 kwh           | .54 kwh             | .72 kwh            | .6 kwh           | .96 kwh            | .96 kwh          | 5.13 kwh                | \$0.31     |
| Elec           | Lights 3 @ 100 w            | 1.2 kwh          | 1 kwh             | 1 kwh               | 1.05 kwh           | 1.2 kwh          | 1.6 kwh            | 1.4 kwh          | 8.45 kwh                | \$0.51     |
| Elec           | Lights 1 @ 30 w             | .18 kwh          | .21 kwh           | .18 kwh             | .2 kwh             | .21 kwh          | .45 kwh            | .36 kwh          | 1.79 kwh                | \$0.11     |
|                | <b>Total</b>                | 41.67 kwh        | 34.86 kwh         | 32.85 kwh           | 25.5 kwh           | 36.33 kwh        | 48.03 kwh          | 35.28 kwh        | 213.66 kwh              | \$15.25    |
|                | <b>BTU</b>                  | 142219           | 118977            | 112117              | 87032              | 123994           | 163926             | 120410           | 729221                  |            |
|                |                             |                  |                   |                     |                    |                  |                    |                  |                         |            |
|                |                             |                  |                   |                     |                    |                  |                    |                  |                         |            |

Weekly Total

**729221**

Weekly Total Cost

**\$30.50**

|                 |                 |                 |                 |                 |                 |                 |                  |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| <b>142219</b>   | <b>118977</b>   | <b>112117</b>   | <b>87032</b>    | <b>123994</b>   | <b>163926</b>   | <b>120410</b>   | <b>729221</b>    |
| Daily Btu Total | Daily Btu Total | Daily Btu Total | Daily Btu Total | Daily Btu Total | Daily Btu Total | Daily Btu Total | Weekly Btu Total |

| Form of Energy        | Appliance & Wattage Ratings | Monday<br>Time Used | Tuesday<br>Time Used | Wednesday<br>Time Used | Thursday<br>Time Used | Friday<br>Time Used | Saturday<br>Time Used | Sunday<br>Time Used | Total<br>Kwh or other unit | Total Cost |
|-----------------------|-----------------------------|---------------------|----------------------|------------------------|-----------------------|---------------------|-----------------------|---------------------|----------------------------|------------|
| Auto Gas              | Car<br>32 mi/gal            | -                   | .94 gal.             | .09 gal.               | .06 gal.              | .09 gal.            | .15 gal.              | -                   | 1.33 gal.                  | \$2.06     |
| Auto Gas              | Truck<br>18 mi/gal          | -                   | .16 gal.             | -                      | -                     | -                   | -                     | -                   | .16 gal.                   | \$0.25     |
|                       | <b>Total</b>                |                     | 1.1 gal.             | .09 gal.               | .06 gal.              | .09 gal.            | .15 gal.              |                     | 1.49 gal.                  | \$2.31     |
|                       | <b>BTU</b>                  |                     | 137500               | 11250                  | 7500                  | 11250               | 18750                 |                     | 186250                     |            |
|                       |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |
|                       |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |
| Natural Gas           | Hot H2O Heater<br>.03 cu/ft | .03 cu/ft           | .03 cu/ft            | .03 cu/ft              | .03 cu/ft             | .03 cu/ft           | .03 cu/ft             | .03 cu/ft           | 2.1 cu/ft                  | \$1.00     |
|                       | <b>BTU</b>                  | 22.5                | 22.5                 | 22.5                   | 22.5                  | 22.5                | 22.5                  | 22.5                | 157.5                      |            |
|                       |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |
|                       |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |
| <b>Work</b>           |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |
| Electricity           | Lights<br>12 @ 30w          | -                   | -                    | 1.08 kwh               | 1.08 kwh              | 1.08 kwh            | -                     | -                   | 3.24 kwh                   | \$0.19     |
|                       | Computer Sys.<br>720 w      | -                   | -                    | -                      | -                     | .72 kwh             | -                     | -                   | .72 kwh                    | \$0.04     |
|                       | <b>Total</b>                |                     |                      | 1.08 kwh               | 1.08 kwh              | 1.8 kwh             |                       |                     | 3.96 kwh                   | \$0.23     |
|                       | <b>BTU</b>                  |                     |                      | 3686                   | 3686                  | 6143                |                       |                     | 13515                      |            |
|                       |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |
|                       |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |
| <b>School</b>         |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |
| Electricity           | Lights<br>12 @ 30 w         | 1.44 kwh            | .36 kwh              | -                      | 1.08 kwh              | -                   | -                     | -                   | 2.88 kwh                   | \$0.17     |
|                       | <b>BTU</b>                  | 4915                | 1229                 |                        | 3686                  |                     |                       |                     | 9830                       |            |
|                       |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |
|                       |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |
|                       |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |
|                       |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |
|                       |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |
|                       |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |
| Total Home            | <b>BTU</b>                  | 142242              | 256500               | 123390                 | 94555                 | 135267              | 182699                | 120433              | 1055086                    | \$18.56    |
| Total Work/<br>School | <b>BTU</b>                  | 4915                | 1229                 | 3686                   | 7372                  | 6143                | -                     | -                   | 23345                      | \$0.63     |
|                       |                             |                     |                      |                        |                       |                     |                       |                     |                            |            |

Weekly  
Total

220.5 kwh  
2.1 cu/ft  
1.49 gal.

Weekly  
Total Cost

**\$19.19**

|                    |                    |                    |                    |                    |                    |                    |                     |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| <b>147157</b>      | <b>257729</b>      | <b>127076</b>      | <b>101927</b>      | <b>141410</b>      | <b>182699</b>      | <b>120433</b>      | <b>1078431</b>      |
| Daily Btu<br>Total | Daily Btu<br>Total | Daily Btu<br>Total | Daily Btu<br>Total | Daily Btu<br>Total | Daily Btu<br>Total | Daily Btu<br>Total | Weekly Btu<br>Total |