**NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PERIOD # \_\_\_\_\_\_\_\_**

**Heat and Temperature Webquest**

<http://www.classzone.com/books/ml_science_physical/page_build.cfm?id=resour_ch4&u=1>

Use the link above. On the right side, under the “green” box labeled “simulations” click on the

**Kinetic energy and temperature** link. Read the text, operate the animations and answer the questions that follow.

Which two factors affect the average kinetic energy of the particles of any type of matter?

What happens to the speed of the particles if the temperature is increased?

What happens to the speed of the particles if the size of the particle is increased?

What do you have to do to give the particles of the matter the most kinetic energy?

Next, go to this link to find the definition for conduction: <http://dictionary.kids.net.au/word/conduction>

What is **CONDUCTION**?

Now, go to this link for the definition of convection: <http://dictionary.reference.com/browse/convection>

What is **CONVECTION**?

Finally, go to this link to define radiation: <http://answers.askkids.com/How_Stuff_Works/what_is_the_definition_of_radiation>

What is **RADIATION**?

Go back to the main site from above: <http://www.classzone.com/books/ml_science_physical/page_build.cfm?id=resour_ch4&u=1>

Now click on the **“Conduction, Convection, or Radiation”** link under the same the “green” box labeled “simulations”

Once you’ve finished dragging the pictures to the correct boxes, fill out the following table.

|  |  |  |
| --- | --- | --- |
| Conduction | Convection | Radiation |
|      |   |   |
|      |   |   |

Now click on the link marked **“Solar Cells”**, under the “green” box heading *Simulations.*

Play the movie.



Which heat transfer method is used to capture the sun’s energy?

Take a look at these “bite – sized” conduction, convection and radiation animations

<http://goanimate.com/go/movie/0WfGCwinVaGI?utm_source=emailshare&uid>=

In what three ways can heat be transferred?

True or False: Heat is always transferred from a warm object to a cooler one.

Give your own example of the following:

**Conduction ---**

**Convection ---**

**Radiation ---**

Write down the definitions of heat and temperature

<http://dictionary.kids.net.au/word/heat_energy>

**HEAT---**

 <http://www.yourdictionary.com/temperature>

**TEMPERATURE--**

Click on the **temperature converter** link.

<http://www.onlineconversion.com/temperature.htm>

Type in your body temperature in Fahrenheit degrees. What is your body temperature in Celsius?

Type in the current room temperature. What is this temperature in Celsius?