Name : …….....Surname ……..Class……Date .....

ENERGY SOURCES

1. Choose the correct alternative

1.Most of the energy we use originally come from:

a. The sun
b. The air
c. The soil
d. The oceans

2. **Which of the following is a non-renewable energy resource?**

a. Solar
b. Biomass
c. Hydroelectric
d. Coal

3. **What type of energy is derived from hot groundwater?**

a. Solar energy
b. Geothermal energy
c. Nuclear energy
d. Hydroelectric energy

4. **Which of the energy sources below is renewable?**

a. Fossil fuels
b. Coal
c. Nuclear
d. Wind

5. **Solar, geothermal and hydropower energy are some of the renewable sources of energy. They are called renewable because they**

a. are clean and free to use
b. can be converted directly into heat and electricity
c. can be renewed by nature in a short period of time
d. do not produce air pollution

6. Geothermal energy can be found

a. everywhere
b. drilling out of mines
c. in specific parts of the Earth
d. under the seabed

2. Match the words in list A with their definitions in list B **…../9**

A	B
1. Coal, gas, oil and peat ____	a. are natural phenomena due to the sun
2. Coal ____	b. is usually found at the top of the pockets of oil
3. Wind, sea waves and sea tides ____.	c. come from the sun
4. Uranium _____	d. was formed from the decomposition of prehistoric plants and animals
5. Gas oil ____	e. drive the electric generator
6. Renewable energy sources _____	f. are places where hot water comes up naturally from the ground
7. turbines _____	g. is a non fossil-fuel used in nuclear fission reactors
8. hot springs ____	h. are fossil fuels
9. hot spots use _____	i. heat to produce electric power

3. Complete the following sentences

1. Energy is the _____ to do _____
2. Energy sources can be classified in _____ and non-_____.
3. Non-renewable energy sources will _____ __ _____ one day.
4. _____ energy sources _____ never _____ out.
5. _____ are concentrated and can easily be converted into _____.
6. Fuels can be divided into fossil and non _____fuel sources.
7. _____ and gas oil are _____ fuels.
8. _____ , _____ energy and _____springs are non-fossil fuels.
9. Renewable energy sources all come from the exploitation of the _____.
10. Direct methods include solar _____, photovoltaic _____ and concave_____
11. _____ methods exploit _____phenomena due to the _____, such as _____, _____waves, sea tides and falling _____

Solar energy

How solar cells transform solar energy into electric current
Complete the text by inserting the words listed below

permits permit strikes put is absorbed transferred
can have flow material

When light _____ PV cells, part of it is _____ by the semiconductor_____. So the energy is _____ to the semiconductor material. This energy _____ electrons to flow. PV cells _____ one or more electric fields that _____electrons to flow the same direction. This flow of electrons _____ a current. If we _____ metal contacts on the top and bottom of the pv cell, we _____ use current according to our needs.

Solar Cells

Number the following ideas in the correct order.

____ As silicon is a very shiny and reflective material,

____ That's why an antireflective coating is applied to the top of the cell to reduce reflection losses.

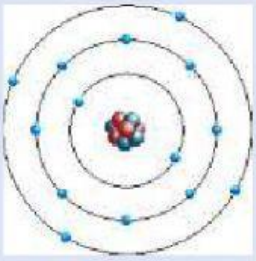
____ At the top of the cell there is a glass cover plate to protect the cell from the environment

____ A solar cell is made up of different layers placed one over the other.

____ photons, that are reflected back, can't be used by the cell.

____ It is made of semiconductor materials, usually silicon.

7 Finally positive and negative terminals are put on the back of the cell.



Silicon

True or False? Write ***T*** ***or*** ***F***

a. Silicon is not a good conductor similar to carbon. ……..

b. An atom of silicon is electrically neutral. --------

c. The outer shell contains only three electrons. ……

d. The two shells which are closest to the centre contain 9 electrons. ---------

e. The silicon structure has special chemical properties. ---------