

Unit 4 Energy

A Multiple-choice questions

1. C
2. A
3. A
4. D
5. B
6. B
7. D
8. D
9. C
10. B

B True or false questions

1. T
2. F
3. F
4. T
5. T

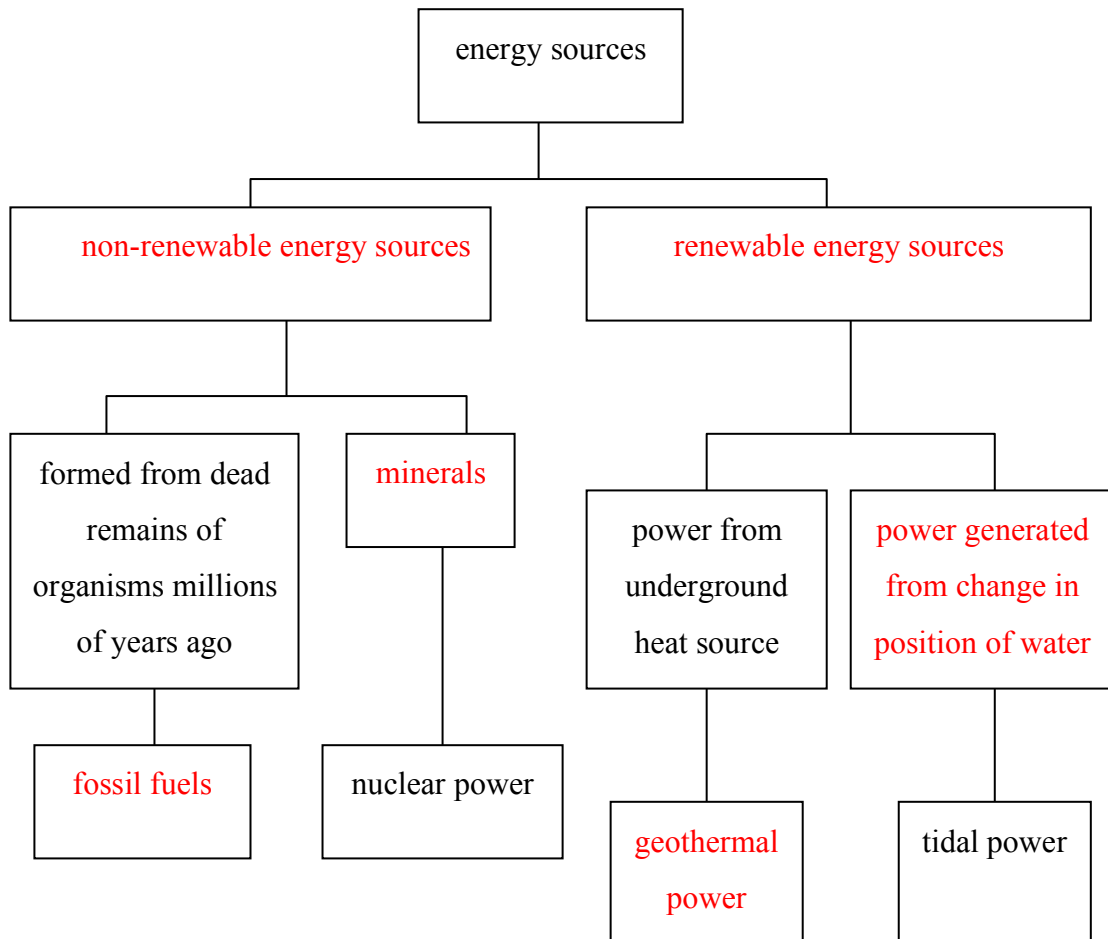
C Fill-in-the-blanks

1. electrical, kinetic
2. Kinetic, sound
3. Generator
4. carbon dioxide
5. nuclear power

D Short questions

1. Potential energy of the person → kinetic energy of the person → kinetic energy and
sound energy of the water in the pool
2. I would prefer to use light bulb B.
More electrical energy is changed into light energy in bulb B, so B wastes less amount of energy.
3. Greenhouse effect.
Light energy is changed into heat energy.
4. The fuels are good because only water will be formed after burning. It does not cause pollution. Besides, the amount of energy released is very great.
Energy conversions:
chemical energy → heat energy → kinetic energy + potential energy

5.



E Long questions

1.

- a Potential energy \rightarrow kinetic energy + sound energy
- b Kinetic energy \rightarrow potential energy
- c A
- d B
- e H
- f There is energy loss (lost as sound energy) in each rebound.

2.

- a Light energy \rightarrow chemical energy
- b Chemical energy \rightarrow light energy + heat energy
- c It is a good fuel for heating because most of the chemical energy of alcohol is changed into heat energy for heating with a little changed into light energy.
- d This is because light energy is unlimited from the sun.

3.

- a This is because the amount of fossil fuels are limited. They will run out in some years later.
- b Light energy of sunlight \rightarrow electrical energy of satellite \rightarrow light energy of satellite \rightarrow electrical energy of transformer on Earth's surface
- c The satellite can get sunlight all the time and this is not affected by weather.