[](http://www.google.com.au/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&docid=Q-jachXC6K5l9M&tbnid=dEZcnnM6t4ztbM:&ved=0CAUQjRw&url=http://all-free-download.com/free-vector/vector-clip-art/tree_outline_clip_art_11785.html&ei=gkD1U_q5CIzp8AXO4oLQAQ&bvm=bv.73231344,d.dGc&psig=AFQjCNFOn96papxJpTkYcyqtzYCWu8mjvQ&ust=1408668120729314)Earth Science Year 7

Mid Topic Test

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Total: 75 marks

Part A: Multiple-Choice (10 marks)

1. Which of the following are **all** natural resources of the Earth?

**A** rocks, fossil fuels, sunlight, water and glass.

**B** plants, animals, sunlight, houses and rocks.

**C** water, soil, sunlight, rocks and fossil fuels.

**D** bridges, soil, sunlight, trees and cars.

2. A renewable resource is:

**A** a resource that is always being replaced naturally.

**B** a resource that takes longer than the average human lifespan to be replaced.

**C** sun, trees and wind only.

**D** any resource that is natural.

3.The main gases in air are:

**A** carbon dioxide, oxygen, chlorine and nitrogen.

**B** nitrogen, oxygen, carbon dioxide and other gases.

**C** argon, water vapour, ozone and other gases.

**D** nitrogen, water vapour, argon, methane and other gases.

4. Which of the following is true about the Sun?

**A** plants use sunlight to produce food.

**B** it warms the Earth’s atmosphere.

**C** it is a renewable resource.

**D** all of the above.

5. Condensation is:

**A** the process of liquid becoming gas.

**B** the process of gas becoming solid.

**C** the process of gas becoming liquid.

**D** the process of solid becoming gas.

6. Which of the following are **all** renewable energy sources?

**A** biomass, solar, hydroelectricity, wind.

**B** wind, nuclear, solar, hydroelectricity.

**C** geothermal, wind, tidal, coal.

**D** nuclear, biomass, geothermal, wave.

7. The areas of the world best suited to wind and wave energy are

**A** near the equator.

**B** in the regions between the equator and the poles.

**C** at the poles.

**D** in the middle of large continents.

8. Whish of the following is generally true?

**A** poor nations use lots of energy per person.

**B** poor nations have less people.

**C** rich nations use more energy per person.

**D** rich nations use less energy per person.

9. Which of the following is **true** about the water cycle?

**A** the Sun’s energy drives the water cycle.

**B** the water can be in any of the three phases.

**C** it is the natural process of recycling water.

**D** all of the above.

10. Which of the following is **not** associated with the water cycle?

**A** the evaporation of water from a liquid to gas state.

**B** the deposition of sediments.

**C** the transpiration of water from plants.

**D** the percolation of water into the soil.

**Part 2: Short Answer**

1. **Match** the following terms with their correct meaning. Note: not all words will be used.

Erosion, renewable, hydroelectricity, metamorphic, biofuel, humidity, weathering, igneous,

compaction, non-renewable, geothermal, unsaturated, percolation, deposition, evaporation,

fossil fuel, wind energy, saturated, precipitation, condensation, sedimentary, transpiration,

solar, resource.

a) The amount of water vapour in the atmosphere \_\_\_\_\_ *humidity*

b) Something supplied by the Earth to satisfy a need \_\_\_ *resource*

c) Energy from the Sun \_\_\_\_\_\_ *solar*

d) The process of going from liquid to gas \_\_ *evaporation*

e) A resource that is always being replaced naturally \_\_\_\_\_\_ *renewable*

f) Energy from the heat below the Earth’s crust \_\_\_\_\_\_\_ *geothermal*

g) Any water falling from the sky \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *precipitation*

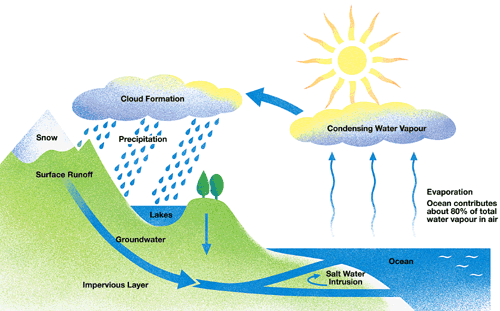
h) Not able to hold any more water \_\_\_\_\_\_\_\_\_\_\_\_\_\_ *saturated*

i) The process of using falling water to generate electricity \_\_\_\_\_\_ *hydroelectricity*

j) Fuels such as coal, oil and gas \_\_\_\_\_\_\_\_\_\_\_\_\_ *fossil fuels*

(10 marks)

2. a) **Draw** and **label** the water cycle in the space below:



evaporation 1

condensation 1

precipitation 1

run-off 1

correct layout 1

(5 marks)

b) **Describe** the water cycle \_\_\_\_\_\_ *water in the ocean etc changes state (evaporates) to become a gas. It then cools and condenses to become cloud and liquids. It then forms precipitate and falls back to Earth as liquid. The water then runs off back into lakes and oceans.*

*Must describe evaporation, condensation, precipitation and run-off.*

(4 marks)

3. Rocks are a resource. Answer the following questions about rocks:

1. Are rocks a renewable or non-renewable resource? \_\_\_\_ *non-renewable*
2. **State** what rocks are made from? \_\_\_\_\_\_\_\_\_\_\_\_\_ *minerals*

1. **List** two uses of rocks as resources \_\_\_\_\_ *to build things, to provide metals*

(4 marks)

4. **Justify** the following statement:

1. Trees are a renewable resource \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*We can re-plant trees once we use them and they grow back in a reasonable amount of time.*

(2 marks)

5. **Explain** why soil is an important resource: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Soil is essential for the growth of plants. We cannot live without plants.*

(2 marks)

6. **Classify** the following as renewable or non-renewable

1. Water \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *R*
2. Air \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *R*
3. Sheep \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *R*
4. Pine trees \_\_\_\_\_\_\_\_\_\_\_\_\_\_ *R*

(4 marks)

7. **Identify** the process that moves water from:

1. Rivers to the atmosphere \_\_\_\_\_\_\_\_ *evaporation*
2. Oceans to the ice caps at the south pole \_\_\_ *freezing*
3. The atmosphere to freshwater lakes \_\_\_\_\_\_ *precipitation*
4. Surface water to aquifers \_\_\_\_\_\_\_\_\_\_\_\_\_ *percolation*
5. Surface water to rivers \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *run-off*

(5 marks)

8. When storing water is there more evaporation off one large dam or a number of smaller dams?

**Design** an experiment that could be used to answer this question.

1. Aim \_\_ *to see if there is more evaporation off a large dam than in a number of small dams*
2. Independent variable \_\_\_\_\_\_\_\_\_\_ *dam size*
3. Dependent variable \_\_\_\_\_\_\_\_\_ *amount of evaporation*
4. Controlled variables \_\_\_\_ *amount of sun, amount of wind, place…*
5. Equipment \_\_\_\_\_ *large container, smaller containers, scales* (5 marks)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Method *\_\_\_ Collect equipment ….*

*Any method that lays out the steps correctly*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(5 marks)

9. Different countries around the world use different amounts of energy per person. The table below shows some counties and their energy usage.

|  |  |
| --- | --- |
| **Country** | **Yearly energy use per person (GJ)** |
| Australia | 240 |
| Canada | 348 |
| China | 48 |
| Egypt | 32 |
| El Salvador | 29 |
| Ethiopia | 12 |
| Greece | 113 |
| Italy | 131 |
| Pakistan | 19 |
| United Kingdom | 164 |
| United States | 327 |

a) Graph the results above as a column graph. (5 marks)

b) Which **two** countries use the least energy per person \_ *Ethiopia and Pakistan*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(2 mark)

c) Which **two** countries use the most energy per person \_\_\_ *Canada and the US*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(2 mark)

d) **Compare** Greece and Australia \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Greece uses just under half what Australia uses per person*

(2 marks)

e) If Australia was to cut yearly energy use per person by 10% **estimate** our new yearly energy use per person

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *216* (1 mark)

f) **Explain** why some countries use small amounts of energy per person while others use large amounts of energy per person.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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(2 mark)

10. **Define** the following:

i) weathering *the breaking down of rocks and minerals into smaller pieces*

ii) evaporation *the process of going from liquid to gas*

iii) condensation *the process of going from gas to liquid*

iv) biofuel *a fuel made from living material*

v) atmosphere *the layer of gases around the Earth*

(5 marks)