Oxygen Cycle

Photosynthesis	Ozone	Waste	Crust	Oceans	Respiration

1. Plants release 430-470 billion tons of oxygen during process of _____.
2. Atmospheric oxygen in the form of _____ provides protection from harmful ultraviolet rays.
3. Oxygen is found everywhere on Earth, from Earth's _____ (rocks) to the _____ where it is dissolved.
4. Oxygen is vital for _____ by animals, a process which produces CO_2.and water.
5. Oxygen is also necessary for the decomposition of _____ into other elements necessary for life.
6. Write the equation for **respiration**.

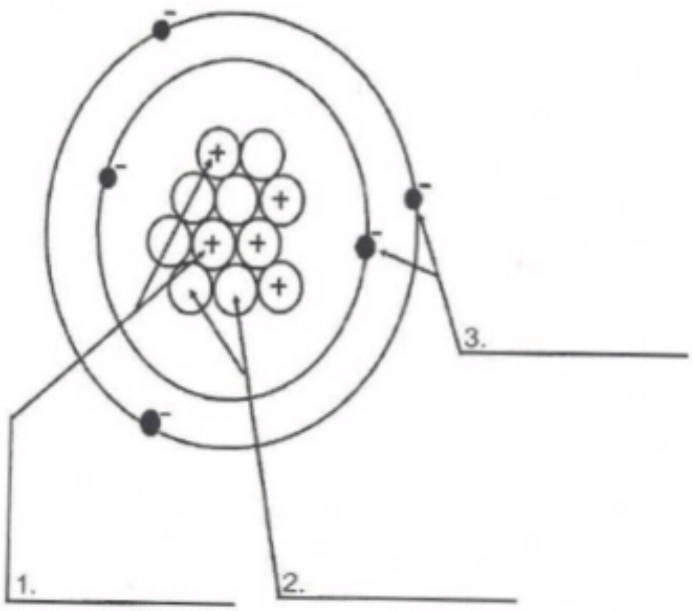
Carbon Cycle

Coal	Oil	Natural Gas	burning of fossil fuels		volcanoes
Photosynthesis	Respiration	ocean	sugar	Greenhouse	decayed

1. Plants use CO_2 in the process of _____ to make _____ and oxygen.
2. Animals use oxygen in the process of _____ and make more CO_2.
3. The _____ is the main regulator of CO_2 in the atmosphere because CO_2 dissolves easily in it.
4. In the past, huge deposits of carbon were stored as dead plants and animals _____.
5. Today these deposits are burned as fossil fuels, which include _____, _____, and _____.
6. More CO_2 is released in the atmosphere today than in the past because of _____ _____ .
7. Another natural source for CO_2 is _____.
8. Too much CO_2 in the atmosphere may be responsible for the _____ effect.

Atomic Structure Worksheet

Label the parts of an atom on the diagram below.



4. What type of charge does a proton have?

5. What type of charge does a neutron have?

6. What type of charge does an electron have?

7. Which two subatomic particles are located in the nucleus of an atom?

8. If an atom has 35 protons in the nucleus, how many electrons will it have orbiting the nucleus?

9. What is the atomic number of the atom in the diagram above?

10. What is the atomic mass/mass number of the atom in the diagram above?

11. How many protons are in the nucleus of an atom with an atomic number of 15?

12. How many electrons are in the nucleus of an atom with an atomic number of 20?

13. How many neutrons are in the nucleus of an atom with an atomic number of 25? (use Periodic Table for mass)

14. What is the mass number of an atom with 3 protons, 4 neutrons, and 3 electrons?

15. How many neutrons are in the nucleus of an atom that has an atomic mass of 36 and an atomic number of 25?

Fill in the blanks with the correct answers

degree celsius	**high**	**cold**	**cannot be created**	**thermometer**
Hot	**temperature**	**low**	**cannot be seen**	**degrees of hotness**

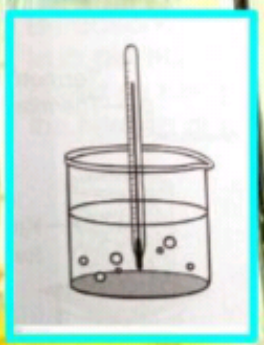
1. Heat is energy that _____ and _____

2. Temperature is an indicator of _____

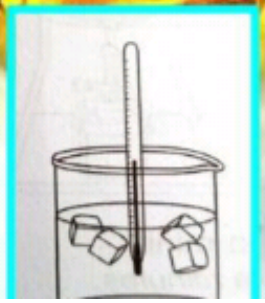
3. The _____of a substance can be measured using_____

4. The standard unit for temperature is _____

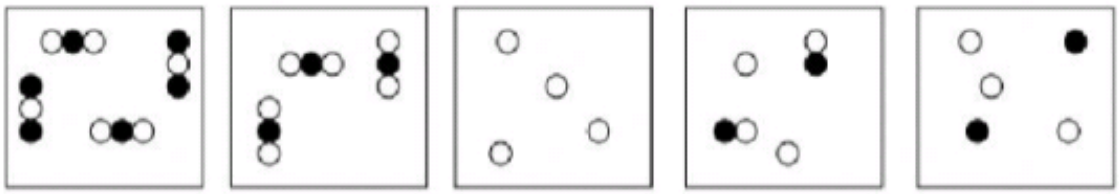
5. When measuring a _____ substance, the mercury level in the thermometer increasing or showing a _____ temperature reading.



6. When measuring a _____ substance, the mercury level in the thermometer decreasing or showing a _____ temperature reading.



Part 2: Match each diagram with its correct description. Diagrams will be used once.



A B C D E

Letter	Description
	1. Pure Element – only one type of atom present.
	2. Mixture of two elements – two types of uncombined atoms present.
	3. Pure compound – only one type of compound present.
	4. Mixture of two compounds – two types of compounds present.
	5. Mixture of a compound and an element.

Evaporation and Condensation, Solutions

Find the pairs.

CONDENSATION	**It happens when the water turns into water vapour**
SOLUTION	**Ice turns into water**
FREEZING	**It is when the particles of two different types of matter mix.**
EVAPORATION	**Water turns into ice**
MELTING	**It happens when water vapour cools down and turns into water**

Put the words in the right place.

carrot ***oxygen*** ***feather*** ***carbon-dioxide*** ***chair***

coca-cola ***water vapour*** ***milk*** ***water***

SOLID	LIQUID	GAS

True or False?

Sugar dissolves in water. **TRUE** **FALSE**

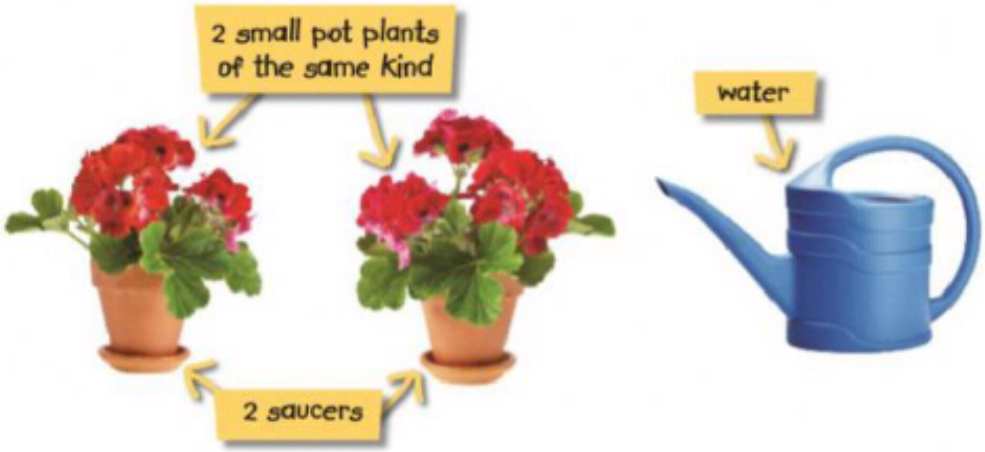
Sand melts in water. **TRUE** **FALSE**

Water boils at 0°C. **TRUE** **FALSE**

Water vapour is the solid state of matter. **TRUE** **FALSE**

Q2. Aliya planted two flowering plants in her garden. In pot A and B

- She poured same amount of water into both the pots.
- She placed pot **A** out in the open air on a sunny windowsill and pot **B** in the dark cupboard.
- After some days she observed that there is a difference between both the plants.



a) What do you think will happen to the plant in the cupboard? Write down your ideas.

_____

_____

_____

b) Which two factors she kept same to make this test fair?

_____

_____

c) Draw a leaf of each plant. How are they different?

Plant on windowsill	Plant in cupboard