



ÉCOLE GLOBALE
INTERNATIONAL GIRLS SCHOOL
Dehradun

HOLIDAYS HOMEWORK

SUMMER BREAK 2018-19

Class- VIII

SUBJECT: SCIENCE

BIOLOGY

- A. Answer the following questions in holiday homework notebook:
1. Describe the process of nitrogen fixation in detail along with its diagram.
 2. Who was Alexander Fleming? Describe his achievements in medical field.
 3. Describe fermentation. How is this process useful in food and beverage industries?
 4. How do microbes help to increase soil fertility?
 5. What is food poisoning? How is it caused?

NOTE: Make colourful and well labelled diagrams wherever relevant.

- B. Make a power point presentation on the topic "Microbes and diseases". List five diseases each caused by bacteria, fungi, virus and protozoa. List their causative organism, mode of transmission/vector symptoms, prevention and cure in detail. Include relevant pictures of the organisms and the diseases.

NOTE: Bring the PPT to school in a pen drive labelled with your name and class.

- C. Project work: Take a scrap book and paste well labelled pictures of causative organisms of the following diseases in it-

BACTERIAL DISEASES

1. Tuberculosis
2. Cholera
3. Typhoid

VIRAL DISEASES

1. HIV
2. Small pox
3. Influenza

PROTOZOAN DISEASES

1. Amoebiasis
2. Sleeping sickness
3. Malaria

NOTE: label and decorate the pictured as a poster. Use only one side of each page in the scrap book to paste pictures.

CHEMISTRY

PROJECT:

-Make a project on any two of the following on A4 size pastel sheets. (Paste relevant pictures)

- i. Photosynthesis
- ii. Digestive system
- iii. Nutrients in food
- iv. Deficiency diseases

-Collect samples of natural and synthetic fibres/articles. Paste them on your holiday homework book. Write what each fiber is made from. Write uses of each fiber. Give the heading 'Natural Fibers' and 'Synthetic Fibers'.

-Visit the website- [http://www.bbc.co.uk/schools.gcsbitesize/design/textiles/fibresrev/html/](http://www.bbc.co.uk/schools/gcsbitesize/design/textiles/fibresrev/html/)

-Write about the fibers and plastics by giving examples of the products made from them.

-On an outline map of India, mark the places where coal, petroleum and natural gas are found. Show the places where petroleum refineries are situated and paste the map in your Holiday homework notebook

-Prepare index cards for any of the four metals and four non-metals. The cards should have information like name of the metal/non metal, their properties, uses, etc.

Assignment: (to be done in holiday homework notebook)

- a. Name the following questions:-
 1. Name some common non-metals used in our daily life.
 2. Hardest naturally occurring substance.
 3. Property of metals which make them useful as electric wires.
 4. Non – metal which has metallic luster.
 5. Two non metals which are soft solids.
 6. Non metals do not conduct electricity or heat except for one . Name it.
 7. An allotrope of carbon which is as tensile as steel.
 8. Metals that are not attacked by cold water, boiling water or steam.
 9. The property of metals by virtue of which these can be beaten into sheets.
 10. Non metals used in disinfection of drinking water.

b. Answer the following (in one or two words)

1. What are the elements called which can neither fit with metals nor non metals?
2. Which of the following metals is the best conductor of heat and electricity?
Gold, Silver, Copper, Aluminum
3. Which property of metals makes them useful as ringing bells?
4. Arrange the following elements in order of increasing reactivity.
Sodium, Magnesium, Copper, Zinc, Aluminum
5. An oxide solution of which of the following elements will turn blue litmus red.
6. Which non-metal is used in making pencil lead?
7. Identify the most reactive and least reactive metal amongst the following
Aluminum, Potassium, Copper, zinc, Gold
8. State the nature of oxides of non-metals.
9. Give an example of neutral oxide.
10. Which non metal is kept under water and why?

c. Fill in the blanks

- i. The number of metals is much _____ than non metals.
- ii. The smallest unit of an element is known as _____.
- iii. Metals like _____ and _____ exist in liquid state.
- iv. Elements which do not react chemically are known as _____.
- v. Oxides of metals which are acidic as well as basic in nature are called _____.

PHYSICS

1. Give two examples each of situations in which you push or pull to change the state of motion of objects.
2. Give two examples of situations in which applied force causes a change in the shape of an object.
3. Fill in the blanks in the following statements:
 - (a) To draw water from a well we must ——— at the rope.
 - (b) A charged body ——— an uncharged body towards it.
 - (c) To move a loaded trolley, we have to ——— it.
 - (d) The north pole of a magnet ——— the north pole of another magnet.
4. An archer stretches her bow while taking aim at the target. She then releases the arrow, which begins to move towards the target. Based on this information fill up the gaps in the following statements using the following terms: muscular, contact, non-contact, gravity, friction, shape, attraction
 - (a) To stretch the bow, the archer applies a force that causes a change in its ——.
 - (b) The force applied by the archer to stretch the bow is an example of — —— force.

- (c) The type of force responsible for a change in the state of motion of the arrow is an example of a ——— force.
- (d) While the arrow moves towards its target, the forces acting on it are due to ——— and that due to ——— of air.
5. In the following situations identify the agent exerting the force and the object on which it acts. State the effect of the force in each case.
 - (a) Squeezing a piece of lemon between the fingers to extract its juice.
 - (b) Taking out paste from a toothpaste tube.
 - (c) A load suspended from a spring while its other end is on a hook fixed to a wall.
 - (d) An athlete making a high jump to clear the bar at a certain height.
 6. A blacksmith hammers a hot piece of iron while making a tool. How does the force due to hammering affect the piece of iron?
 7. An inflated balloon was pressed against a wall after it has been rubbed with a piece of synthetic cloth. It was found that the balloon sticks to the wall. What force might be responsible for the attraction between the balloon and the wall?
 8. Name the forces acting on a plastic bucket containing water held above ground level in your hand. Discuss why the forces acting on the bucket do not bring a change in its state of motion.
 9. A rocket has been fired upwards to launch a satellite in its orbit. Name the two forces acting on the rocket immediately after leaving the launching pad.
 10. When we press the bulb of a dropper with its nozzle kept in water, air in the dropper is seen to escape in the form of bubbles. Once we release the pressure on the bulb, water gets filled in the dropper. The rise of water in the dropper is due to (a) pressure of water (b) gravity of the earth (c) shape of rubber bulb (d) atmospheric pressure

1 Mark Questions

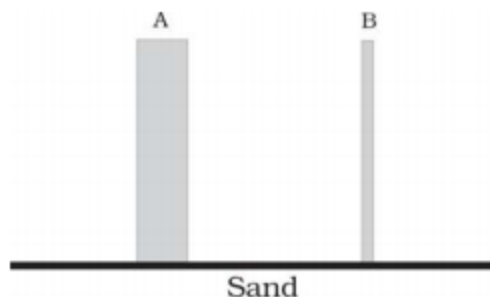
1. A ball of dough is rolled into a flat chapatti. Name the force exerted to change the shape of the dough.
2. Where do we apply a force while walking?
3. A girl is pushing a box towards east direction. In which direction should her friend push the box so that it moves faster in the same direction?
4. During dry weather, clothes made of synthetic fibre often stick to the skin. Which type of force is responsible for this phenomenon?
5. While sieving grains, small pieces fall down. Which force pulls them down?
6. Does force of gravity act on dust particles?
7. A gas filled balloon moves up. Is the upward force acting on it larger or smaller than the force of gravity?
8. Does the force of gravitation exist between two astronauts in space?

2 Mark Questions

1. A chapati maker is a machine which converts balls of dough into chapati's. What effect of force comes into play in this process?
2. Two persons are applying forces on two opposite sides of a moving cart. The cart still moves with the same speed in the same direction. What do you infer about the magnitudes and direction of the forces applied.
3. Two thermocol balls held close to each other move away from each other. When they are released, name the force which might be responsible for this phenomenon. Explain.
4. Fruits detached from a tree fall due to force of gravity. We know that a force arises due to interaction between two objects. Name the objects interacting in this case.
5. A man is pushing a cart down a slope. Suddenly the cart starts moving faster and he wants to slow it down. What should he do?

5 Mark Questions

1. An archer shoots an arrow in the air horizontally. However, after moving some distance, the arrow falls to the ground. Name the initial force that sets the arrow in motion. Explain why the arrow ultimately falls down.
2. It is difficult to cut cloth using a pair of scissors with blunt blades. Explain.
3. Two rods of the same weight and equal length have different thickness. They are held vertically on the surface of sand as shown in Fig.11.9. Which one of them will sink more? Why?



4. Two women are of the same weight. One wears sandals with pointed heels while the other wears sandals with flat soles. Which one would feel more comfortable while walking on a sandy beach? Give reasons for your answer.
5. It is much easier to burst an inflated balloon with a needle than by a finger. Explain.