

**Dr. M.K.K. ARYA MODEL SCHOOL**

**Summer Holiday Homework (2017-18)**

**Class: VIII**

**Chemistry and Physics**

- *Prepare power point presentations on the following topics:*

*Roll no. 1-15: Friction, force and pressure, sound*

*Roll no. 16-30: Synthetic fibres, metals and non-metals, coal and petroleum*

*Roll no. 31 and above: Crop production and management, micro-organisms*

- *Solve the assignment work in your fair notebooks (paste the assignment and write answers only)*

**Chapter- 3 Synthetic Fibres and Plastics**

1. *Is nylon fibre so strong, that we can use it to make parachutes?*
2. *Give some uses of PET*
3. *Why is melamine used for making kitchenware?*
4. *Give three advantages of polythene over natural materials.*
5. *Explain why plastic containers are favored for storing food?*
6. *Explain why Electric plugs/switches/plug boards are made of thermosetting plastics?*
7. *Give examples to show that plastics are noncorrosive in nature.*
8. *What are the advantages of using fabrics made of polyester?*
9. *What are the disadvantages of wearing synthetic fabrics?*
10. *Give three advantages of rayon.*
11. *Why is it advised not to wear synthetic clothes while working in a laboratory or working with fire in kitchen?*
12. *Write some characteristics of synthetic fibres which make them popular dress materials?*
13. *Write some uses of bakelite and properties and uses of melamine?*
14. *Write short notes on the following:*

A) Plastic and Healthcare industry

B) Plastic cookware

C) Teflon

D) Fire proof plastic

15. What are the four ways to overcome the problems of waste accumulation?

#### **Chapter-4 Metals and Non-metals**

1. Explain displacement reaction with the help of an activity.

2. Explain the reaction of non-metals with oxygen with the help of an activity.

3. Write the uses of metals and non-metals.

4. Write the difference between metals and non-metals on the basis of their physical properties.

5. Name two most ductile metals.

6. Sodium is stored in kerosene. Why?

7. What are oxides? Write the nature of metallic and non-metallic oxides.

8. Explain displacement reaction with the help of an example.

9. Explain the reactions of metals and non-metals with (i) Acids (ii) Air (iii) Water.

10. Write the uses of metals and non-metals in our daily life.

11. What is Rust?

12. What is an alloy?

13. How do different metals react with water

14. Why are utensils made of aluminium and brass?

15. Give reasons:

a) Iron is used in constructing bridges and houses.

b) Aluminium is used for making electrical wires

c) Sulphur is counted as non metal

16. Compare the chemical properties of metals and nonmetals

### Chapter-12 Friction

1. Write some harms of friction.
2. What is sliding friction?
3. Why we fall down when we stop on banana peel?
4. In which direction frictional force acts on a moving object.
5. What is easier- rolling or sliding?
6. What is drag?
7. How does the friction get affected by the nature of surface?
8. What happens, if the floor we walk on is friction less?
9. The sole of shoes get worn after some time. Explain why?
10. What happens when there is no friction between the chalk and the blackboard.
11. Write on harm of friction.
12. Why do kabaddi players rub their hands with soil?
13. Answer the following:

A) What might happen if a car tried to stop on an ice road? \_\_\_\_\_

How is this explained by friction? \_\_\_\_\_

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What would you add to the ice to make it safer for the car to travel across it? \_\_\_\_\_

B) An example of rolling friction is

- a) using oil to lubricate
- b) wheels on your skateboard
- c) dragging your sister across the floor on a blanket
- d) the little mermaid swimming through the ocean

C) Which of the following is not a type of friction?

- a) fluid

- b) static
- c) rolling
- d) sliding
- e) lifting

D) It takes more force to overcome \_\_\_\_\_ friction and get the object moving than to overcome \_\_\_\_\_ friction.

- a) static, kinetic
- b) rolling, kinetic
- c) static, Newtons
- d) fluid, force

E) Resistance created when one object rolls over another one.

- a) rolling friction
- b) air friction
- c) momentum

F) A force that makes objects pull toward each other.

- a) Friction
- b) Gravity
- c) Gear
- d) Lever

## Chapter- 13 Sound

1. Do all bodies produce sound?
2. Touch the bell when it stops producing sound. Can you feel the vibration? What do you understand by this?
3. Name the sound producing organ.
4. Can sound travel through vacuum?
5. What is oscillatory motion?
6. Why the sound of the baby is feeble?
7. What is ektara? Identify its vibration part.
8. Explain that sound travels in liquids as well.
9. Name some musical parts and their vibrating parts
10. How does shrillness or pitch is affected by frequency?

