BAL BHARATI PUBLIC SCHOOL, PITAMPURA, DELHI – 110034

CLASS:- VIII **SUBJECT:- CHEMISTRY**

CHAPTER:- SYNTHETIC FIBRES AND PLASTICS

GUIDELINES

Dear students,

- Refer to the following content related to the chapter and draw the flowchart on the types of plastics and their properties in your chemistry notebook.
- This will help you understand the concept of the lesson and complete the assignment /activity that follows.

SUB-TOPICS

- Arrangement of monomer units in polymer of plastics
- Comparison of linear and cross –linked polymers in plastics
- Classification of plastics as Thermoplastics and Thermosetting plastics.
- Plastics as materials of choice (characteristics and properties of plastics)
- Read the chapter from Living Science Book. Link of PDF uploaded.

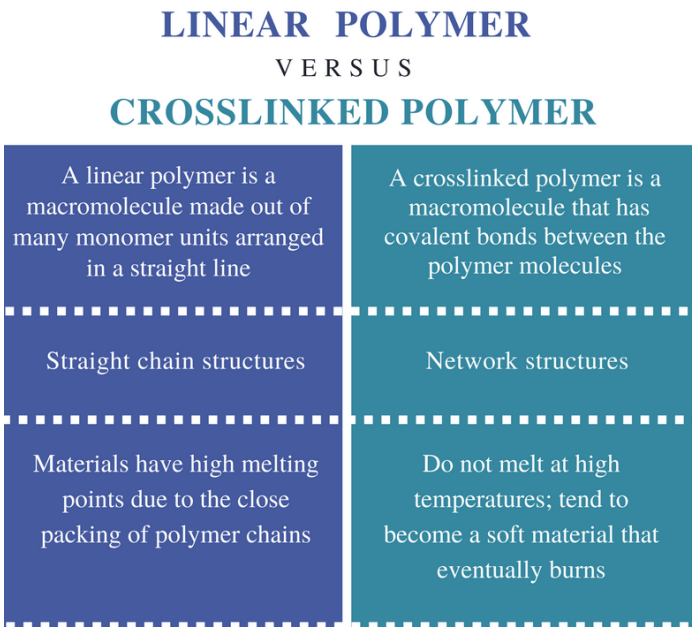
1.1 ARRANGEMENT OF MONOMER UNIT IN POLYMER OF PLASTICS

Refer to the following link for better understanding of linear and cross –linked arrangements of polymer in plastics.

https://www.youtube.com/watch?v=rhFc477fs6s&feature=youtu.be

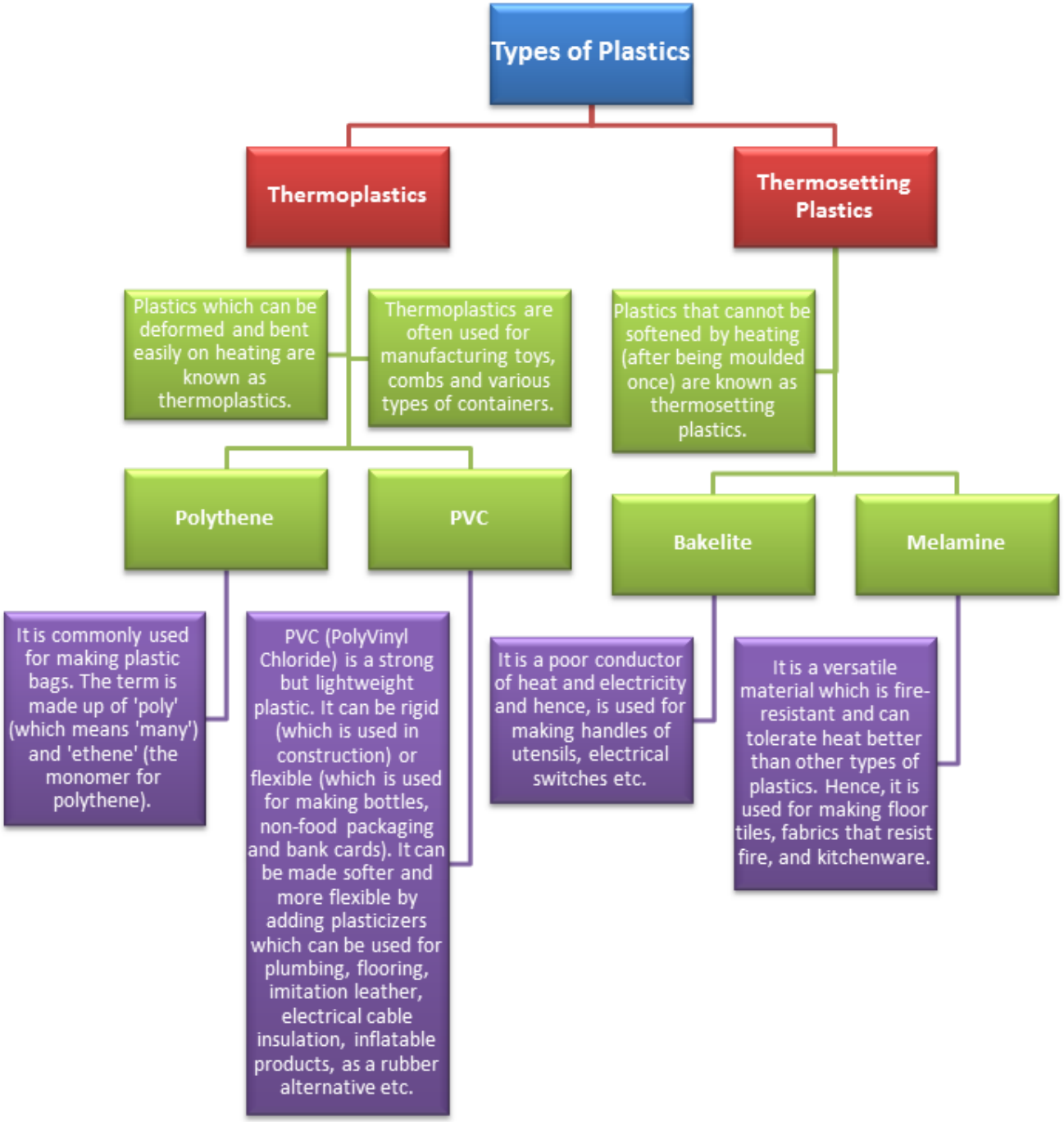
1.2 COMPARISON OF LINEAR AND CROSS –LINKED POLYMERS IN PLASTICS

Draw the given table of comparison in your fair notebook.



1.3 CLASSIFICATION OF PLASTICS AS THERMOPLASTICS AND THERMOSETTING PLASTICS

Draw the given flowchart in your fair notebook.



1.4 PLASTICS AS A MATERIAL OF CHOICE

CHARACTERISTICS AND PROPERTIES OF PLASTICS

1. https://youtu.be/VjcH2nHxff8

2. https://www.youtube.com/watch?v=qSJBZwbCpeA
   Refer to the above You tube links for better understanding of the topic.

- **Based on your understanding, perform the following activities:**

  * Make use of beads or paper clips, as used earlier, for designing of linear and cross-linked polymers of plastics.

  * List at least 10 items made of plastics at your home or surroundings and classify them as thermoplastics or thermosetting plastics in a tabular form.

- **ATTEMPT THE FOLLOWING ASSIGNMENT IN YOUR CHEMISTRY NOTEBOOK**

Q1. On the basis of the materials used in the given products, categorise the products as 'Can be Recyled' and 'Cannot be Recycled'.

Telephone instruments, plastic toys, cooker handles, carry bags, ball point pens, plastic bowls, plastic covering on electrical wires, plastic chairs, electrical switches.

Q2. Give reasons for the following:

a) Cooking pans have plastic handles.

b) Electric wires have a plastic covering.

c) Melamine is used to make crockery.

d) Plastics are used in cars, aircrafts and spacecrafts.

e) Special plastic cookware is used in microwave ovens.

Q3. Multiple choice questions. Select the correct option.

(a) The plastic used for making water pipes :

(i) Melamine

(ii) PVC

(iii) Polyester

(iv) Bakelite

(b) The non-stick coating on frying pans is that of a plastic called:

(i) PVC

(ii) Bakelite

(iii) Melamine

(iv) Teflon

(c) Which of these is thermosetting plastic?

(i) Acrylic

(ii) PET

(iii) PVC

(iv) Teflon

(d) Plastics are generally made from

(i) coal

(ii) petroleum

(iii) plant products

(iv) kerosene

Q4. Compare and contrast thermoplastics and thermosetting plastics . (any 3 points)

Q5. Draw the diagram showing the presence of linear polymers in a thermoplastic and cross – linked polymers in a thermosetting plastic.