SNBP International & Senior Secondary School, Chikhali, Pune.
Affiliation No. 1130703
Academic session 2024-25
CLASS NOTES

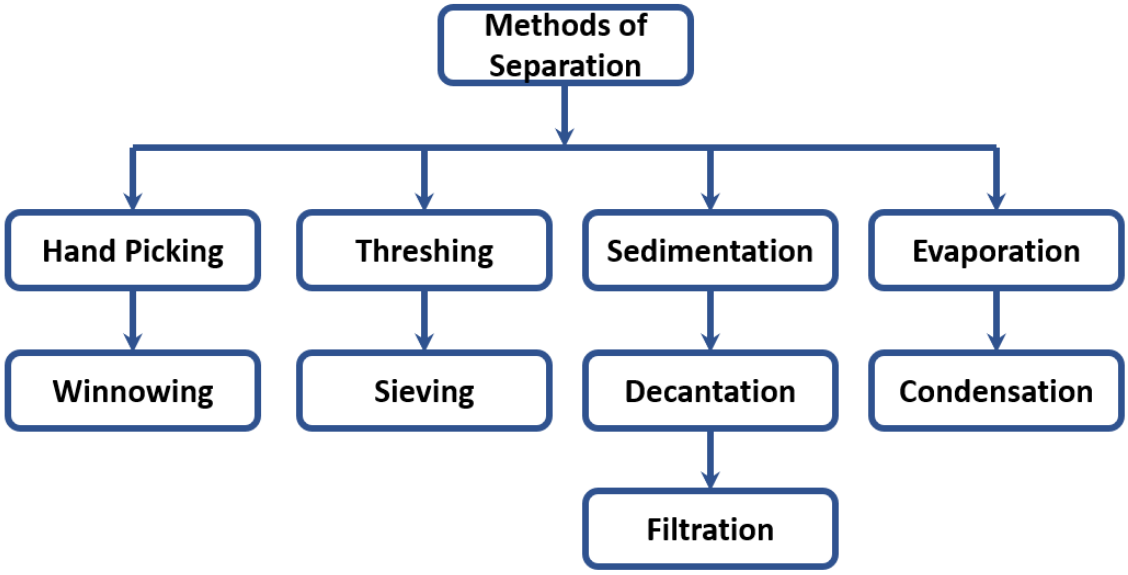
CLASS: VI SUBJECT: SCIENCE
Prepared By: Ms. SNEHA PATIL LESSON- CH.3 SEPARATION OF SUBSTANCES

New words

1. Threshing
2. Winnowing
3. Churning
4. Condensation
5. Decantation
6. Evaporation
7. Filtration
8. Handpicking
9. Saturated solution

Pre activity:

Make a flow chart showing different methods of separation



I. VERY SHORT ANSWER QUESTIONS:

Q1. How will you separate pieces of husk or dirt particles from a given sample of pulses before cooking?
Ans: Husk or bigger pieces of dirt particles can be removed from a sample of pulses by handpicking.

Q2. Is it possible to separate sugar mixed with wheat flour? If yes, how will you do it?
Ans: Yes. Through sieving we can separate sugar mixed with wheat flour.

Q3. Lemonade is prepared by mixing lemon juice and sugar in water. You wish to add ice to cool it. Should you add ice to the lemonade before or after dissolving sugar? In which case would it be possible to dissolve more sugar?
Ans: We should add sugar before adding ice. Sugar dissolves in warm water more quickly than in cold water. We can dissolve more sugar before mixing ice in water.

II. SHORT ANSWER QUESTIONS:

Q1. What is winnowing? Where is it used?
Ans: Winnowing is the method of separating components of a mixture containing heavier and lighter components by wind or by blowing air. It is used to separate husk particles from seeds of grain**.**

Q2. What is sieving? Where is it used?
Ans: Sieving is the process of filtering components of a mixture of different sizes. Sieving allows fine particles to pass through the holes of the sieve, while the bigger impurities remain on the sieve. Sieving is used in flour mills to separate broken particles of grains from flour. It is also used at construction sites to separate lumps, smaller stones from the mixture of sand and cement.

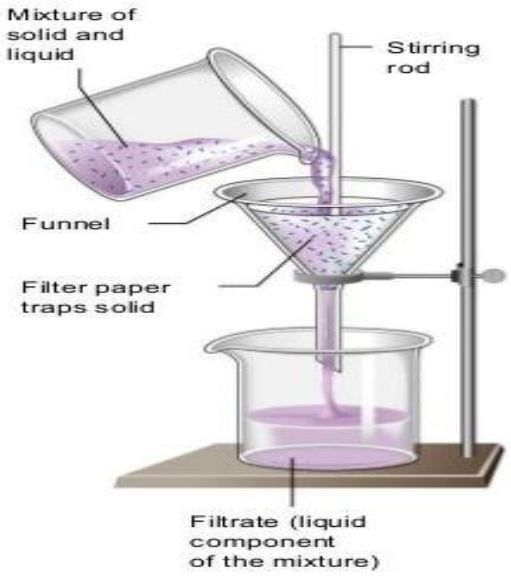
Q3. How will you separate mixture of sand and salt?
Ans: To separate mixture of sand and salt, add the mixture to water.
The salt gets dissolved in water. The sand being heavy settles at the bottom as we keep the mixture undisturbed, this is called sedimentation. This water is slowly collected in another container (decantation). The sand is collected. The water is heated till all the water gets evaporated and we can see the salt crystals. This is collected separately. Hence salt and sand are separated.

III. LONG ANSWER QUESTIONS:

Q1. Why do we need to separate different components of a mixture? Give two examples.
Ans: Before using a substance, we need to separate harmful or non-useful substances that may be mixed with it. Sometimes, we separate even useful components if we need to use them separately.
For example : • We used to separate slightly larger sized impurities like the pieces of dirt, stone, and husk from wheat, rice or pulses by handpicking method.
• Rice or pulses are usually washed before cooking. When we add water to these, the impurities like dust and soil particles get separated

Q2. How would you obtain clear water from a sample of muddy water?
Ans: Following steps are required to obtain clear water from muddy water.
- Allow muddy water to stand undisturbed in a container.
- After sometime, mud settles at the bottom of the container. This process is called sedimentation
- Upper layer is clear water.
- Pour the clean water gently in another container. This process is called decantation.
- To remove finer impurities, we can filter this water again with the help of filter paper. This process is called filtration.

Q3. Draw a neat label figure showing the method of filtration



Post activity: Draw and label the winnowing method of separating grains.