Wada Nirmiti Education Society's

GURUKUL GLOBAL SCHOOL

WORKSHEET

SUB: Science **LESSON: 9. Methods of Separation** **STD:VI**

NAME: _____ ROLL No: _____ DATE:

Q.1. Choose the correct option.

1. Which method is used to separate different-sized particles of a mixture?
a) Winnowing b) Sieving c) Churning d) Evaporation

2. Which of the following substances is insoluble in water?
a) Salt b) Sugar c) Sand d) Glucose

3. Which method is used to separate cream from milk?
a) Filtration b) Sedimentation c) Centrifugation d) Handpicking

4. The clear liquid poured off after sedimentation is called:
a) Residue b) Filtrate c) Decanted liquid d) Sediment

5. Which method is suitable for separating flour from larger impurities?
a) Sieving b) Winnowing c) Churning d) Evaporation

6. Which method can be used to separate two miscible liquids with different boiling points?
a) Handpicking b) Distillation c) Sieving d) Winnowing

7. Which of the following mixtures can be separated by handpicking?
a) Salt and water b) Sugar and water
c) Stones and pulses d) Milk and cream

8. What happens when muddy water is left undisturbed for some time?
a) Mud dissolves completely b) Mud settles at the bottom
c) Water evaporates immediately d) Mud floats on the surface

9. Which method is commonly used to separate butter from curd?
a) Churning b) Sieving c) Winnowing d) Decantation

10. Which method is most suitable for obtaining salt from salt solution?
a) Handpicking b) Evaporation c) Sieving d) Sedimentation

Q.2. Fill in the blanks.

1. The process of separating grains from stalks is called _____.
2. The process of separating lighter particles from heavier particles using wind is called _____.
3. A _____ is used to separate insoluble solids from liquids.
4. The heavier insoluble particles that settle at the bottom are called _____.
5. Salt dissolves in water to form a _____.
6. The process of pouring off the clear liquid without disturbing the sediment is called _____.

7. The method used to separate butter from curd is _____.
8. The process of obtaining a dissolved solid by heating its solution is called _____.
9. The process of separating substances based on differences in particle size using a sieve is called _____.
10. The substance that does not dissolve in a liquid is called _____.

Q.3. State whether the following statements are True or False.

1. Sugar can be separated from water by ordinary filtration. _____
2. Winnowing is useful for separating husk from grains. _____
3. Sedimentation works because heavier insoluble particles settle down. _____
4. All substances dissolve in water. _____
5. Sieving is useful when the components of a mixture have different particle sizes. _____

Q.4. Match the following. (5 Marks)

Column A	Column B
1. Handpicking	a. Separating butter from curd
2. Filtration	b. Separating flour from bran
3. Churning	c. Removing stones from rice
4. Sieving	d. Separating insoluble solids from liquids
5. Evaporation	e. Obtaining salt from salt solution

Q.5. Identify the method of separation.

1. Separating tea leaves from prepared tea: _____
2. Separating husk from wheat grains: _____
3. Separating stones from pulses: _____
4. Separating sand from water using filter paper: _____
5. Separating salt from seawater: _____

Q.6. Assertion and Reason.

Choose the correct option:

- A. Both Assertion and Reason are true, and Reason correctly explains Assertion.
- B. Both Assertion and Reason are true, but Reason does not correctly explain Assertion.
- C. Assertion is true, but Reason is false.
- D. Assertion is false, but Reason is true.

1. Assertion: Winnowing is used to separate husk from grains.
Reason: Husk is generally lighter than grains.

2. Assertion: Filtration can separate dissolved salt from water.
Reason: Dissolved salt particles pass through ordinary filter paper along with water.

3. Assertion: Sedimentation helps separate sand from water.
Reason: Sand is insoluble in water and settles at the bottom when left undisturbed.

4. Assertion: Sieving can separate particles of different sizes.
Reason: Smaller particles pass through the holes of a sieve while larger particles remain behind.

5. Assertion: Evaporation can be used to obtain salt from salt solution.
Reason: Water changes into vapour, leaving the dissolved salt behind.

Q.7. Answer the following questions.

1. Explain the process of evaporation with an example.
2. Differentiate between sieving and handpicking.
3. How can you separate a mixture of sand and water? Explain the steps.

Q.8. Application-based questions.

1. Riya accidentally mixed small stones with rice. Which method should she use to separate them? Why?
2. A mixture contains salt and sand. Describe how you would separate both substances.