

Separation of Substances

Samacheer, Science, Class - VI, Term - II

Making Science Exciting...

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The lesson was on different separation techniques. It dealt with methods like hand-picking, winnowing, sedimentation, filtration and evaporation. Most of the children are familiar with these methods as they have seen and experienced it in their lives. So instead of talking and reading the text out to them, I decided to teach this lesson by assigning them tasks.

I first divided the class into different groups. Each group had one child who could lead the others. Children themselves chose to be a part of a particular group based on their own interests. This made it easier for them to belong that group. Each group was asked to bring a set of materials for their task. I told them that if any of them failed to bring the materials, they would be pulled out of their respective group and shifted to another. This tactic worked with my students and all of them brought the materials required for the activity.

The mixtures that students used were:

1. Snack Mixture
2. Vegetables
3. Paddy (with the husk)
4. Iron fillings with magnet
5. Filter, sand
6. Sugar, salt water, vessel
7. Sand + water
8. Cereals

Each group was given one particular mixture and asked to separate it into its components. The others observed while each group performed their task. At the end of the task, others were allowed to ask questions. I did not instruct them anything, but just asked them to devise their own method of separation. Once they completed the task, I would ask them what was the basis of separation and if there were any other better methods of separation. Here the students would discuss their rationale and their attention was directed towards the properties of substances that lead them to choose a particular method of separation. The rest of the class could also offer their suggestions at this stage. After each group finished their task, they received appreciation from everyone and the next team would take over.

After all these mixtures were done, I gave them a mixture that had sand mixed with salt dissolved in water. I asked them what method they would choose and why. Through a discussion, students arrived at the conclusion that they had to use a combination of methods to separate this mixture. We then discussed which method had to be done first to get this done easily. Here I could assess if students had understood the concept and were able to apply it appropriately.

The entire session took five periods to complete. But it made my work very simple. At the end of five classes, I only had to introduce the terms to the children. Children were also thrilled to learn that their textbook chapter dealt with concepts

they already knew. I asked them to go through the textbook and answer the evaluation questions at the end of the chapter. When they read out the answers, I had another chance to correct any misunderstandings they had. This method of teaching not only got all the students very excited

in class, but also boosted their confidence levels and interest towards learning science. They have started looking at science as a subject that is enjoyable and easy to learn and this term end assessment is testimony to that.



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