

Class: III

Level: elementary

Topic: Solubility. Experiments with water.

Content subject(s): Chemistry

Aims:

- to provide the students with the basic knowledge and understanding of science concepts - soluble and insoluble substances
- to explain and prove the difference between soluble and insoluble by doing experiment
- to evidence that some substances do not dissolve in water
- to make students take part in an interesting experiment

Objectives: by the end of the lesson Ss should be able:

- to notice and explain the difference between specific substances
- to distinguish soluble and insoluble substance
- to understand and use properly instructions like: put, pour, stir, wait.

Problems anticipated:

- Sscan have problems with understanding the experiment
- Ss may have problems while putting ingredients into the small glasses
- Ss have difficulties with understanding the rules of the game

Solution to the problems:

- T uses realia and provides a lot of explanation
- T monitors the work and helps when it is necessary
- T uses gestures and replace some words if it is needed.

New vocabulary: adjectives: *soluble, insoluble*, verbs: *stir, put, pour, disappear, wait* food: *oil, salt, water, sugar, rice, flour, ink, chalk, vinegar, butter, coffee* objects: *stones, glass, spoon*, adjectives: *soluble, insoluble, solution, solvent*

Aids/Materials:

- pictures illustrating the keywords
- two glasses of water, salt, rice, notebook
- five glasses, bottle of water, sugar, flour, oil, sand, coffee, worksheets to write down the results
- sticks with the labels 'Yes', 'No', pictures of different substances (ink, chalk, vinegar, ketchup, butter, wax), whiteboard

| Time | Stage & Procedure | Aids/ materials | Samples of T's language | Model of interaction |
|-----------|---|--|--|---------------------------------|
| 5 min | Warm-up. Hangman game. T writes on the whiteboard empty squares, they stands for the letters that Ss have to guess to find a clue. The Ss say the letters one by one. The clues are: WATER, SOLVENT, SOLUTION. T shows the students pictures illustrating these words and explains the meaning of the words. Finally, T tells the Ss the topic of the lesson. | Whiteboard Pictures illustrating the keywords | ‘Think about the clue’ ‘Tell me the letter’ ‘Can you guess the clue?’ ‘Solution means...’ ‘The topic of the lesson is...’ | T-Ss Ss- T |
| 10 min | Engage. T introduces new terms <i>Soluble</i> and <i>insoluble</i> . T prepares two glasses half filled with water. To the first glass of water T adds a spoon of salt and stirs. The salt is soluble. T repeats this word a few times. After that T asks one volunteer to come and add rice to the second glass. The second conclusion is that rice is insoluble. T again puts up the glasses with salt and rice and repeat the words soluble and insoluble. Finally, T asks students to open their notebooks write the topic and new words. | Two glasses of water Salt Rice Notebook | ‘This is a glass of water’ ‘I put some salt into the water and stir’ ‘Look salt is soluble’ ‘I need one volunteer’ ‘Take some rice, put it into the second glass and stir’ ‘Look salt is insoluble’ ‘Repeat after me’ ‘Open your notebooks and write the topic’ | T- Ss Individual work |

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| | wax). T raise the pictures says the words loudly and every pair has to decide and picks up correct stick (Yes or No). T gives the correct answers and if Ss are right they get the point. T writes the scores of every pair on the whiteboard. After the game T writes on the whiteboard a table with soluble and insoluble substances which Ss got to know during the lesson. Ss rewrite the note into their notebooks. | substances Whiteboard Notebook | ‘Open your notebooks’ ‘Rewrite the note from the whiteboard’ | |
| 2 min | Homework. T asks Ss to find at home another four soluble and insoluble products/substances and write them into the table in their notebooks. Volunteers can bring materials to the next class and present them to the rest of the Ss | Notebooks Materials from home | ‘ Your homework is to find other soluble and in soluble substances ate home’ ‘You can bring them to the classroom and present’ ‘Thank you for your attention’ | T-Ss Individual work |