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 scienceconcepts - 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, pourdisappear, 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

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

15	Study. T tells Ss that they are going		'I want you to work in	T-Ss
min	to carry out an experiment. T divides	Five	groups'	
	Ss into four groups. T chooses	glasses		
	leaders of each group. The leaders		'You are going to	
	come to the teacher and get a bottle	Bottle of	make an experiment'	
	of water, five glasses, water, sugar,	water		Group
	oil, sand, flour, coffee. First T makes		'Pour the oil into the	work
	sure that the students remember the	Sugar	water'	
	words. T lifts every ingredient and	Flour		
	says its name one by one, Ss repeat	Oil	'Is it soluble?'	
	after her. After that leaders of every	Sand		
	group pourwater to five glasses. T	Coffee	'Fill in the worksheet'	
	monitors their work . Later, T asks			
	groups to pure different substances		'Good job'	
	into each glass. Ss task is to stir	Workshee		
	ingredients in every glass and decide	ts		
	which substances are soluble and			
	which are insoluble. After that T			
	gives every group a worksheet,			
	where they need to fill in the			
	information about solubility by			
	ticking 'Yes' or 'No'. Finally, the			
	leader of every group reads the			
	results aloud and Ss compare their			
	results.			
	Activate.Ss work in pairs. Every pair	Sticks	'Let's work in pairs'	
13	gets two sticks with the labels 'Yes'	with the	'Put up the proper	Pair work
min	and 'No'. Ss task is to decide	labels	label'	
	whether substances are soluble or	'Yes',		
	insoluble. T picks up different	'No'	'Is it soluble?'	T- Ss
	pictures presenting soluble and			
	insoluble substances (ink, pepper,	Pictures of	'You are the winner!'	Individual
	chalk, paint, vinegar, ketchup, butter,	different		work

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