

## PROFILES IBSE Learning Module

### Assessment

IS THE PLANTS FOOD NATURAL?  
 What happens to substances  
 dissolved in groundwater?



### Suggested Assessment:

Suggested formative and summative assesment:

- student assessment based on the content (tasks completed), language used and obtained results;
- self-assessment of students;
- self-teamwork ability assessment;
- collaborative skills assessment;
- cooperation assessment between teamworks or group of experts;
- assessment of the presented information and outcomes.

### Assessment strategy:

The evaluation is based on different evaluation instruments presented in the following tables (1-6). There are taken into consideration:

- Table 1 - Assessment tool of the activity sheet
- Table 2 - Self-assessment tool created for students
- Table 3 - Assessment tool for teamwork skills
- Table 4 - Assessment collaboration tool
- Table 5 - Student assessment tool based on the teacher's observations
- Table 6 - Assessment tool for presented information and outcomes

Teacher is free to determine the relative points and weights of those instruments in order to calculate the final score.

## Assessment instruments (Tables/Rubrics):

Table 1 - Assessment tool of the activity sheet

Criteria	4	3	2	1
Content	I completed all the tasks correctly and I personally interpreted	I completed all the tasks correctly but I gave no personal interpretation	I completed all the tasks but most are wrong	I completed some of the tasks and the majority are wrong
Language used	I used a specific language science and I know the meaning of terms used	I used a specific language of chemistry but I don't know the meaning of all terms	I used a plain language nonspecific	The language used by me is poor
Interpretation of results	I've compared the results obtained with the reality and I wrote the correct conclusions	I've compared the results obtained with the reality	I tried to interpret the results	I didn't give an interpretation

Table 2 - Self-assessment tool created for students

	Always	Sometime	Never	Examples / Reflections
I have conceived my plan of action				
I have established a standard of performance				
I have explored new ways consistent with my goals				
I thought about my progress daily				
I have established points of progress				

I set goals that are measurable, achievable, realistic and timely				
I searched for new sources of information				
I accepted responsibility and other valuable ideas				
I expressed my views contributing to the success of the investigation				
I participated frequently in brainstorming analyzing of new options				
I accepted others opinions on my plan of action				
I separated short-term goals and long term goals				
I have offered flexibility to the action plan, if necessary				
I shared my accomplishments with others				
I had constantly looking for new alternatives				

Table 3 - Assessment tool for teamwork skills

This tool allows self-evaluation of the students in terms of teamwork skills.

Instructions: Choose statements that match your team activity

	Yes	With help - everytime	With help - from time to time	No	Comments (when I'm not able to make them)
I can perform most of the tasks within the team					
I complete all the tasks that I have had in the group					
I accept the colleagues ideas within the team					
I ask questions for clarifying the arising issues					

Table 4 - Assessment collaboration tool

Description: Descriptors are formulated in terms of student collaborative skills, for evaluation

Instructions: Use this scale to assess how you collaborate with the group members you belong

Assessment type: Formative

4	3	2	1
<b>Contribution</b>			
I always participate actively in group discussions. I always perform tasks. I help establishing the goals and direct the group to fulfill them	I participate actively in group discussions. I perform tasks. I help establishing the goals and direct the group to fulfill them	I need sometimes encouragement to perform my assigned duties I need help establishing the goals and fulfill them	I choose to not be involved I don't perform my tasks I disturb the group on reaching the goals
<b>Cooperation</b>			
I share ideas and contribute with appropriate information to the topic I encourage others	I share ideas when asked and I allow others to do it	I share occasionally ideas when asked and I allow to do it for most members	I often interrupt the conversations
<b>Active listening</b>			
I alternate listening with speech I'm always concerned about the ideas and feelings of others	I can listen to others I show responsiveness to the ideas and feelings of others	Sometimes I can listen to others Sometimes I show responsiveness to the ideas and feelings of others	I don't listen to others I don't show responsiveness to the ideas and feelings of others
<b>Tasks solving</b>			
I'm actively engage in group problem solving I help the group to take wise decisions	I offer suggestions for tasks solving I help the group to take decisions	Sometimes I offer suggestions for tasks solving Sometimes I help the group to take decisions	I choose to not be involved in solving tasks or taking decisions Sometimes I cause problems to the group

Table 5 - Student assessment tool based on the teacher's observations (Monitoring cooperation tool)

This scale is ready to be used by the students during workgroup which they will ensure that collaboration is efficient.

Use this checking list to ensure that there is interdependence between learning group members or group of experts.

Evaluation form: collaboration / workteam

	Never	Sometimes	Always	Examples
I have identified gaps				
I learned tasks				
I have outlined approaches				
I suggest new ideas and directions				
I offered to tackle difficult tasks				
I ask questions				
I find and share resources				
I requested clarification				
I responded enthusiastically to others questions				
I have offered help to identify the necessary changes and to encourage the group action				
I searched for alternative solutions				
I helped my group to get motivated to the correct conclusions				

Table 6 - Assessment tool for presented information and outcomes

Design	
	The information in the presentation is easy to understand
	The sequencing data and sections are clear and logical
Content	
	The concept / process followed is discussed / explained scientifically correct
	The results are explained using appropriate terminology
Scientific method	
	It have been established the experimental procedure to be followed
	There were identified the equipment, the tools and the chemicals needed
	Experimental work took place
	There were represented the data
	There were interpreted the data and conclusions have been established
Communication	
	The ideas are communicated effectively
	The results are discussed
	The text is creative and engaging
	The bibliography is properly cited