The scenario

Subject	Extraction with an organic solvent
Length	5,52 min.
Main objectives	Learning the method of isolating a substance from a mixture or a solution in another solvent
Detailed objectives	Observation of changes taking place during extraction Understanding the extraction process
Structure and description of experiments:	
Introduction	Extraction involves transferring a substance from one solid or liquid phase in which the substance is dissolved to another liquid phase. Extraction refers to processes carried out in liquid-liquid or liquid-solid systems. In the case of liquid-liquid extraction, liquids should have limited solubility.
Main subject	Description: Studying the extraction process.
Experiment	**Equipment:** a metal ring to put the manifold aside or a large holder for a tripod, a tripod **Glass:** funnel with stopper, two conical flasks, two measuring cylinders **Reagents:** chloroform, aqueous iodine solution **Description:** Pour 10 ml of an aqueous solution of iodine into the manifold installed in the stand, with the tap in the closed position (note! Be careful when working with iodine! Wear gloves!). Then add 15ml of chloroform to the funnel (Caution! Flammable substance! Work in fume hood!). Plug the funnel with a plug and shake its content intensively (for about 5 seconds) and then gently lift the plug to equalize the pressure inside the funnel (symptom of this will be a slight hiss). Then shake the separating funnel again, repeating the process three more times. After the final shaking, place the funnel in the rack and separate the two layers by pouring each layer into a separate conical flask. Evaluate the differences in the appearance of the contents of both flasks. **Questions**: 1. Record the observations that took place in the manifold. 2. In which layer (upper or lower) was the chloroform in the separatory funnel? Justify your answer. 3. Give two examples of using extraction in everyday life. **Conclusions**: Extraction is the process of moving a substance from one solid or liquid phase in which the substance is dissolved to another liquid phase. Extraction refers to processes carried out in liquid-liquid or liquid-solid systems. In the case of liquid-liquid extraction, liquids should have limited solubility. In the experiment, iodine from the aqueous layer was extracted into the organic layer (chloroform). The change of the color of the chloroform solution from colorless to pink and the simultaneous discoloration of the water layer proves the "transition" of iodine from the water layer to the organic layer.

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	Extraction is often used to remove unwanted impurities or impurities from mixtures. An example of liquid-solid extraction is the brewing of tea, herbs and coffee. **Level**: High School

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