

## Summary

# Separation of copper and Iron: two different approaches



### Target age

Age 16 and over

### Level of difficulty

Easy

Medium

High



### Key words:

Recycling, Sustainability, Chemistry



### Abstract of the activity:

This module illustrates two different methods to separate metals, one from another. This is a very important task in refining primary raw materials as well as recycling. Students are shown that efficient recycling is a fascinating and complex work field that offers many opportunities.



### Learning Goals

- Solubility
- Reaction equations
- Qualitative analysis
- Law of mass action
- Acid-base reactions
- Equilibria

## Summary

### Specific Abilities



- Reflect the necessity of recycling
- Reflect the limitation of recycling
- Understand the background of the experiments
- Handle chemicals and laboratory equipment

### Cross-curricula Links



- Economy and environment
- Chemistry: Solubility, reactions equations, law of mass action, acid base reaction, equilibria
- Chemical steps of industrial recycling
- Economy and waste treatment

### Prerequisites



- Handling of chemicals and laboratory equipment
- Fundamental knowledge of chemistry

**Time requirement**      2 h                      30 min



**Instruments:** Glass funnel, filter paper, test tubes, test tube holder, volumetric flasks, separating column with ion exchanger (Type Lewatit TP 207, beakers)

### Learning and Teaching Support Materials - What you can find in the toolkit



1. Lab Procedure/s- Modules 1-2
2. Students' Cards (1-2)
3. Exercises

RM  
Ambassadors

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