


For Teachers

Let's start gold panning!

Chemicals:



Reagent	Formula		Mass (g) or concentration (M)
Water	H ₂ O		10 kg

List of tools:

- Mixing bowl
- Mixing spoon
- Gold pan
- Bigger bowl or basin for water

Laboratory work

During the experiment, the separation of two fine particle sized material with different densities can be practiced. The first step is to measure approximately the same amount of the two materials (~50-50 g) from both fine-sized materials, and thoroughly mix it together. Then put a small amount of mixture in the gold pan.

Put water in the bigger bowl / basin.

Add a small amount of water to the gold pan by submerging it in the water, but be careful so that the material mixture could not leave the pan. By moving the pan back and forth, or in a circular motion, the separation of the two materials can already be seen. The higher density material sinks down to the bottom of the pan and the lower density will move to the top of the material bed. As soon as this process starts, by slightly tilting the pan towards the ridged part. The lower density particles will start to leave the pan, but the ridges will help to retain the higher density particles.

Add fresh water to the pan and repeat the steps until most of the lower density material is removed from the gold pan.

Additional safety information



There are no chemicals or dangerous materials involved in this experiment. The use of protective equipment is not necessary.

Calculations

There are no calculations for this experiment.