

The scenario

Subject	Thermal properties of matter / Thermal expansion of solids
Length	2:35
Main goals	Get familiar with thermal expansion of solids
Detailed goals	to show that a typical metal expands with temperature increased and contracts with temperature decreased
Structure and description of experiments:	
1. Introduction	Most of materials that can be found around us change dimensions with temperature, each one in its own way. We will show that even minuscule expansion can be shown using not so complicated mechanical stuff.
2. Main subject	Thermal expansion of solids
Experiments	We will use a device that can show even slightly change in length – as the lower part of the device is moved, the pointer show exaggerated reading. We use a brass rod and place it inside the device. Then we heat it with a gas burner, the reading of the length increases. We can now cool it down using ice cubes – the reading goes down.
3. Summary, evaluation and remarks	As we conclude, there are some substances that will expand with temperature rise – in fact there is many of them. Counterexample – rubber band. Level: primary school