Student experiment (1st - 4th grade)	**Fast crystal growth with Glauber's salt**	**Time:** max. 15 min.

Safety:

Be careful during heating

Instruments:

- a glass container
- a piece of cardboard or a plate
- a scale
- a hotplate
- thermometer
- a mixing rod
- a glass with lid
- filter paper

Chemicals:

- distilled water
- Glauber's salt (sodium sulfate)
- cold water

Experiment:

- Heat 100 ml of distilled water to 50 °C in the glass container. Dissolve 100 g of Glauber's salt in the water, stirring until all of the salt has completely dissolved.
- Filter the warm solution carefully into a second immaculately-clean, heat-resistant container. Cover this container with a piece of cardboard or a plate.
- Heat and allow boiling for three minutes. Then let the glass cool off without shaking or disturbing the contents in any way! You can use cool water for this (no ice or the glassware may break!).
- After the solution cools to roughly 20 °C, carefully drop one single crystal of Glauber's salt into the solution.
- What happens?

Advice for the teacher:

The added crystal quickly grows needle-like spines in all directions. In just a very short time, the contents of the container form a lattice of ice-like crystals inside the glass.

The pupils should learn how to produce a saturated solution and how to grow crystals from it.