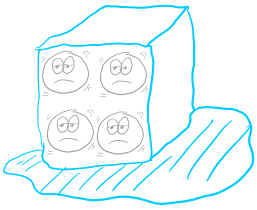
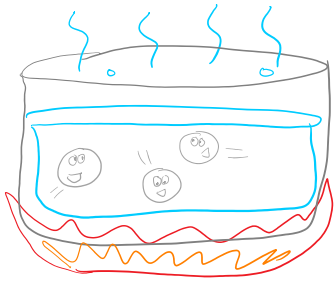
How does the sun heat the earth?

Friday, March 10, 2017 11:34 AM

Remember that everything on earth (air, land, water) is made up of small particles called **Atoms**. **Heat** occurs when these atoms move very fast:



Ice: slow moving particles, very cold

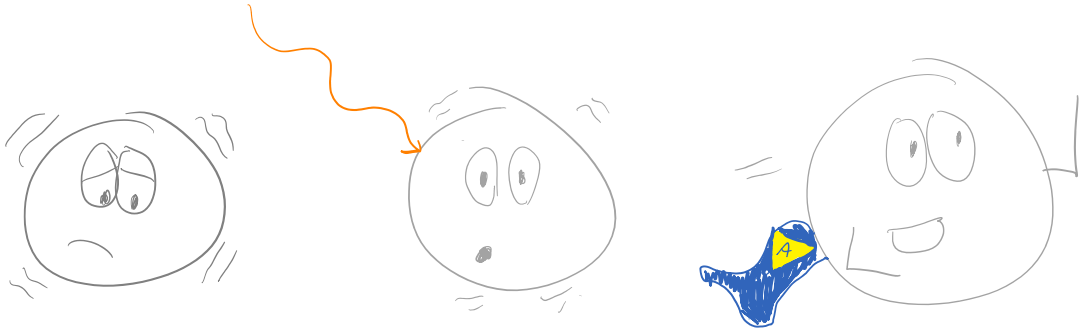


Boiling water: fast moving particles, very hot!

It takes **energy** to speed up particles and cause them to release heat. This energy can come from many sources, but on Earth, all of this energy originates from the sun.

The sun emits energy in **waves**, known as **radiation**. Some of this radiation is visible, and is known as light!

Most of the radiation cannot be seen. Atoms absorb different kinds of radiation, which gives them energy.



The sun shining from outer space hits atoms in Earth's atmosphere, as well as atoms on land and in the ocean, giving them lots of energy. As they absorb energy, the atoms move faster, which we feel as heat!