



Everything — rock, water, air, and **you** — is made of **particles**: tiny pieces far too small to see. A big rock doesn't have bigger particles than a pebble... it just has **more** of them.

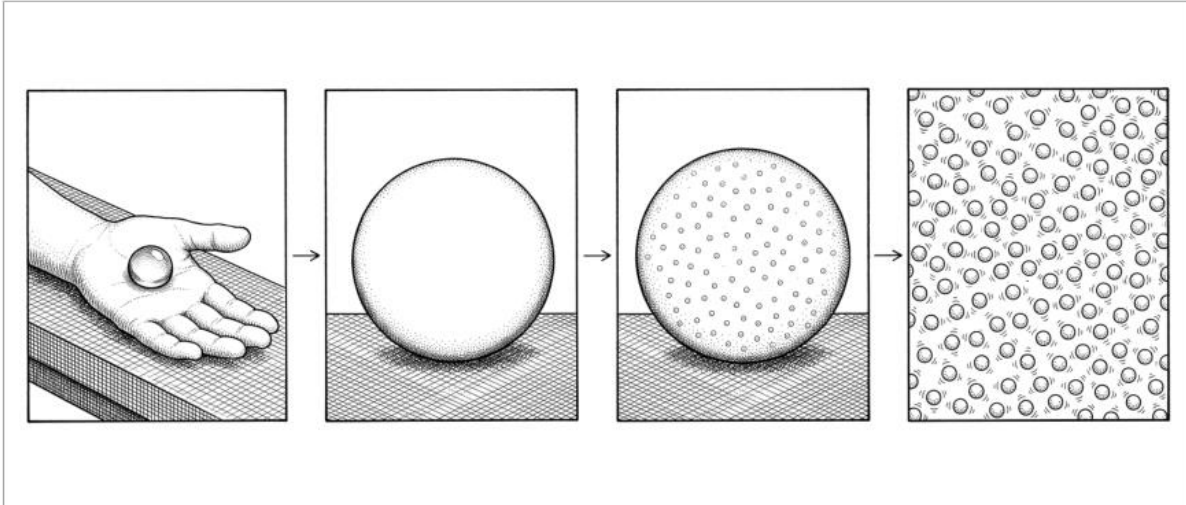
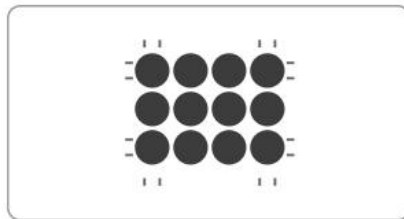


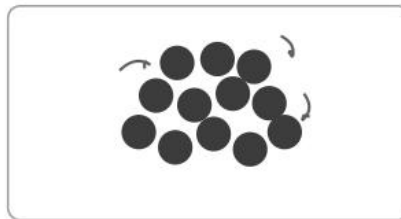
Fig. 1 — cut it in half, and in half again, a million times: at the very bottom you would hold one particle — far too small to see. Even the smallest speck you CAN see is still millions of particles.

SAME PARTICLES — DIFFERENT GRIP



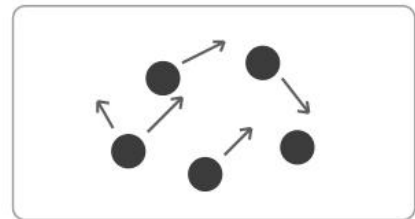
SOLID

holding tight — jiggling in place



LIQUID

loose grip — slipping and sliding



GAS

let go — flying free

Same dots in every box — the particles never change. Only the grip changes... and a hotter flame means faster jiggling.

WORDS TO KNOW

particle

attract

jiggle

tiny

melt

freeze

reversible

dissolve

particle — a tiny piece far too small to see · **attract** — pulling toward each other · **jiggle** — particles never stop wiggling · **tiny** — very, very small · **melt** — the jiggling wins and the particles slip loose · **freeze** — the jiggling slows and the particles lock tight · **reversible** — it can go back the way it was · **dissolve** — particles spread out and hide in the water

WATCH FOR THIS IN EVERYDAY LIFE

- Sugar stirred into warm tea vanishes. *Where did its particles go?*
- Sawdust, crumbs, or crayon shavings where something was cut. *What are those little bits?*
- Steam rising off your soup. *What is escaping into the air?*
- An ice cube melting in your drink. *Who is winning — the jiggle or the grip?*