

Thermal Energy and Heat

States of Matter





How many different examples of matter can you think of?

Categorize them into states of matter



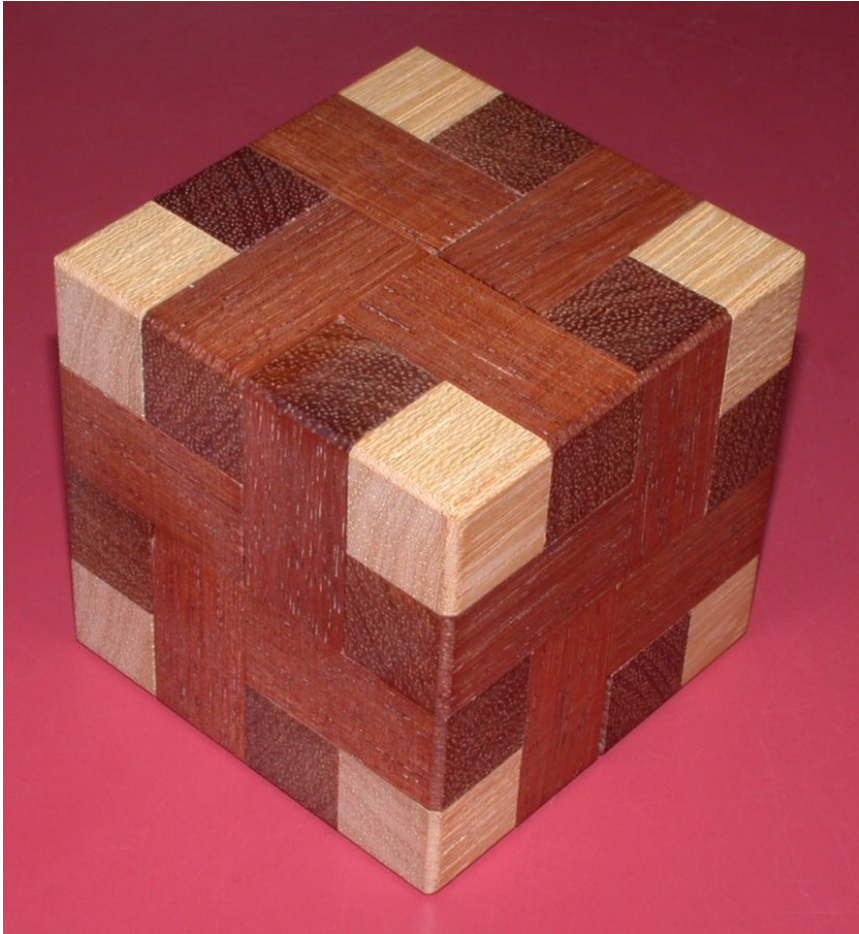
There are four states phases of matter...

Solid

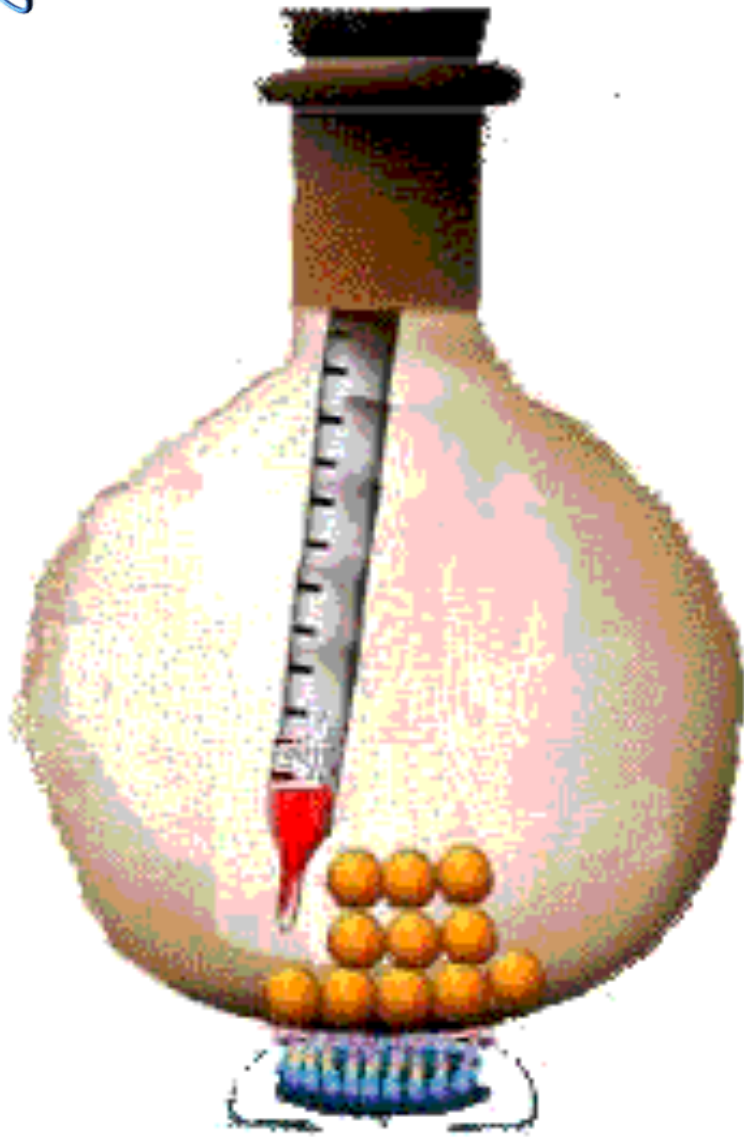
Liquid

Gas

Plasma



1. **Solid** – a solid has a *definite* shape and size – it's particles are *very close together* and are moving *very slowly*. They have the *least* amount of energy.



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2. **Liquid** – a liquid has a *definite size* but *no definite shape*. Liquids *take the shape of* whatever container they are in. It's particles are *further apart* and are *moving faster* (have more energy) than the particles in a solid.



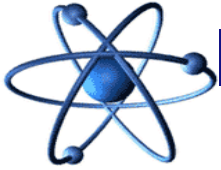


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3. **Gas** – a gas has *no definite* size or shape. They will *expand to fill* any container they are in. It's particles are the *furthest apart* and are moving the *fastest*. They have the *most* energy.



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4. **Plasma** – a *high* energy form of matter. It is the only form of matter that gives off *electromagnetic radiation*

