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# THE PARTICLE THEORY OF MATTER



## What is the Particle Theory of Matter?

The Particle Theory of Matter, which has 6 points, is used to help people understand matter and how matter changes and interacts with each other.

1. Matter contains particles.
2. Particles are identical if they are of the same element (e.g., the elements of oxygen will always be identical).
3. These particles continuously move. Their movement, though, depends on their state.
4. Temperature also impacts how particles move. Particles move quickly when they're warmed, and slowly when they're cold.
5. Each state of matter has space between the particles. This is because the particles are attracted to one another. This is also known as the force of attraction.
6. The space in solids are very small. In liquids, there is a little bit more space between particles, and even more space in gases.

## How does this relate to density?

Since density looks at how much mass is in a volume, the particle theory can help describe density. A dense solid's particles are tightly combined, whereas a gas has a lot of space in between the particles, making it much less dense.

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## THE PARTICLE THEORY DRAWING ACTIVITY

**Instructions:** Use the three empty beakers below to draw what the particles look like in a solid, liquid, and gas.



Solid



Liquid



Gas

## Attachments

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