

How can the behaviour of matter be explained by the kinetic molecular theory and the atomic theory?

How long will this project last?
Two weeks.

Why are we using scratch?
We are using scratch because we need to code a matter simulator and scratch is a good simple (ish) coding program.

How does pressure effect matter?
How does pressure get higher/lower?

What is pressure?
What are the differences between pressure and density?

How do pressure and density effect buoyancy?
If the density of the object is more than the density of the liquid it is in, the object will sink. If it is less, it will float.

Will we have to memorize the periodic table?
No

How does temperature effect matter?

Temperature can change what state matter is in.
Are different elements effected differently by (fluctuations in) temperature?
Are different types of matter effected differently by (fluctuations in) temperature?
Why does temperature effect matter?

If so, why and how?

Yes. When molecules have more kinetic energy they vibrate faster, generating heat. The state of matter is changed when the molecules reach a certain temperature. Different elements have different points at which their state of matter is changed.

What types of behaviour?

Is the behaviour of matter predictable?
All? Yes.
Yes
How can we demonstrate the behaviour of matter?
By changing the movement of the molecules we are simulating and making them vibrate more or less depending on the temperature they are at.

What is the kinetic molecular theory?

The KMT states that all matter is constantly at motion. When molecules have more kinetic energy, they vibrate faster, generating heat. When they have less kinetic energy, they vibrate slower, generating less heat

What is the atomic theory?

The Atomic Theory is the idea that all matter is compose of very small particles called atoms.

Are these theories similar?

In what way do they explain the behaviours of matter?
Do they relate to each other? Yes.

The KMT explains how and why the behaviours of matter are changed with changes of temperature, whereas the Atomic Theory explains what matter is made out of.