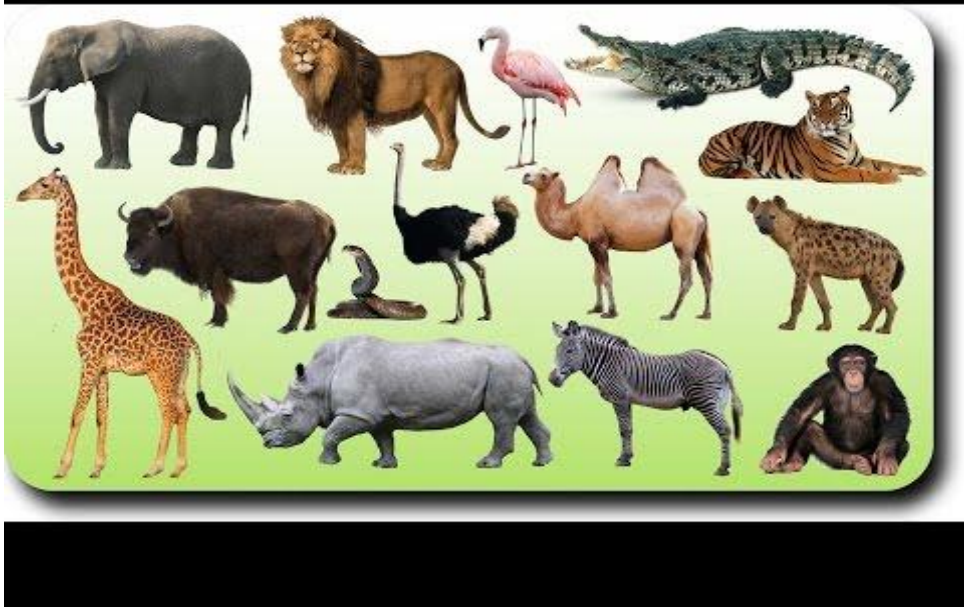
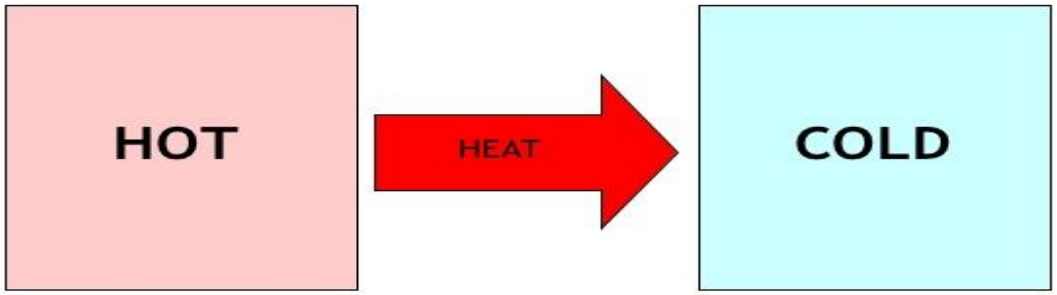
Matter

- Everything around us such air, water, plants, animals and the earth is all **matter.**



Matter can be defined as anything which has mass and volume.

But *Light, Sound* and *Heat* are not examples of matter, because they have no mass and no volume.



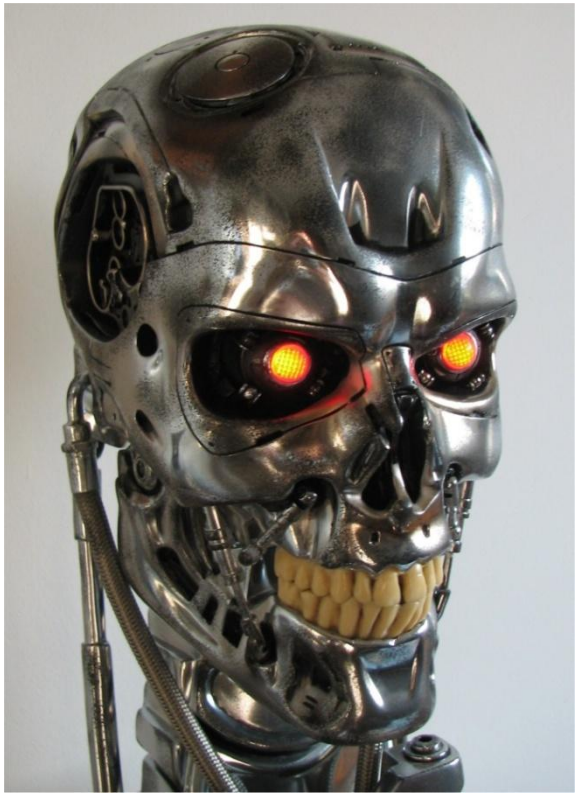
- Heat always moves from HOT to COLD.
  hot → cold

There are 3 states of matter.

- 1. Solid (қатты дене) (твердое)
- 2. Liquid (сұйық) (жидкость)
- 3. Gas (газ)

Solid

Has definite shape and volume



Liquid

- Has definite volume but not definite shape. Takes the shape of container

Gas

Indefinite shape and volume. Fills up container.

Which substance has three states of matter?

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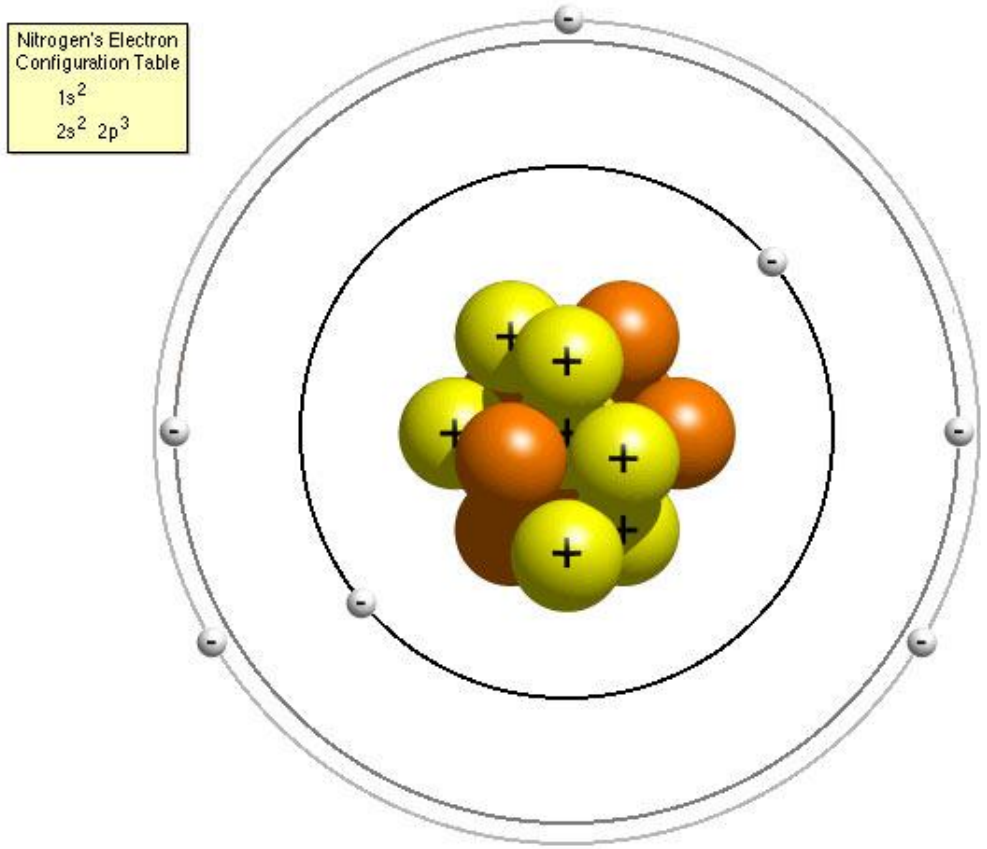
Gas has mass

CAS
Smart Weighing Scale SW-1
NET
0.000 kg
CAPACITY:20 x 0.0002kg

ATOM

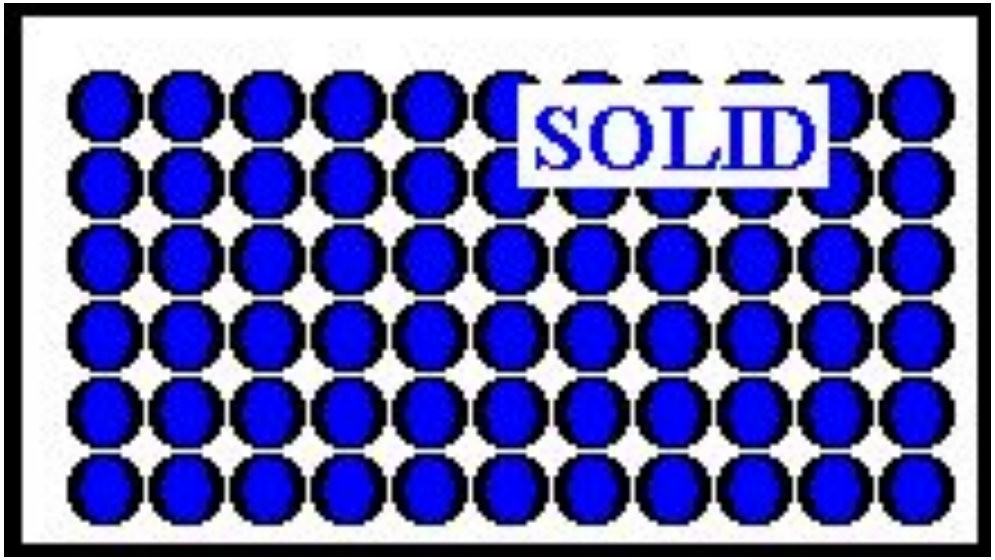
All matter is made up of atoms



- An atom consists of a nucleus and electrons.
- Electron is negatively charged. Nucleus contains *protons* and *neutrons*.
- Protons are positively charged

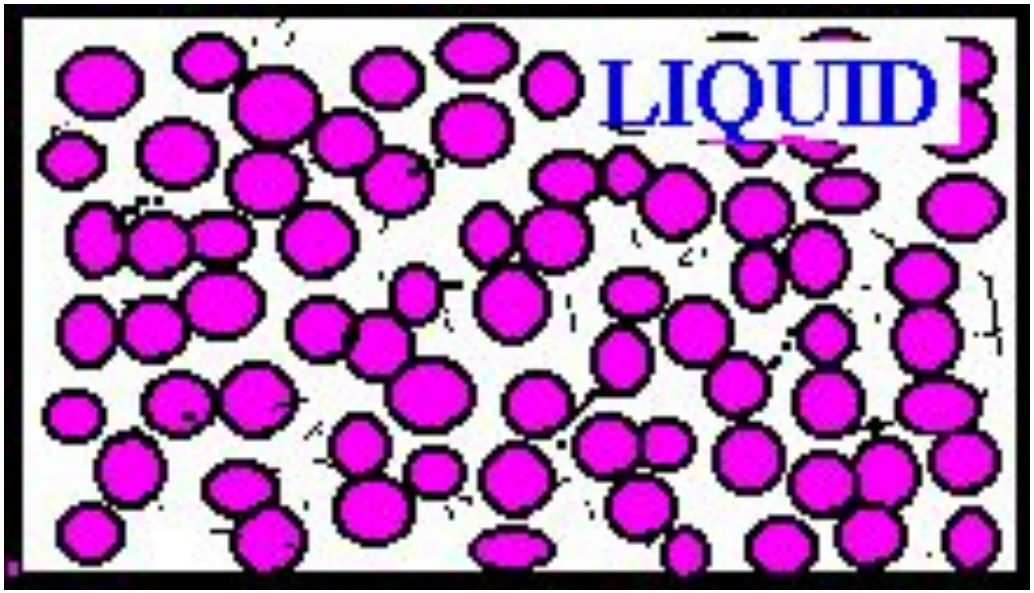
Particles in solid

Very close to each other and holded strongly. That's why definite shape and volume



Particles in liquid

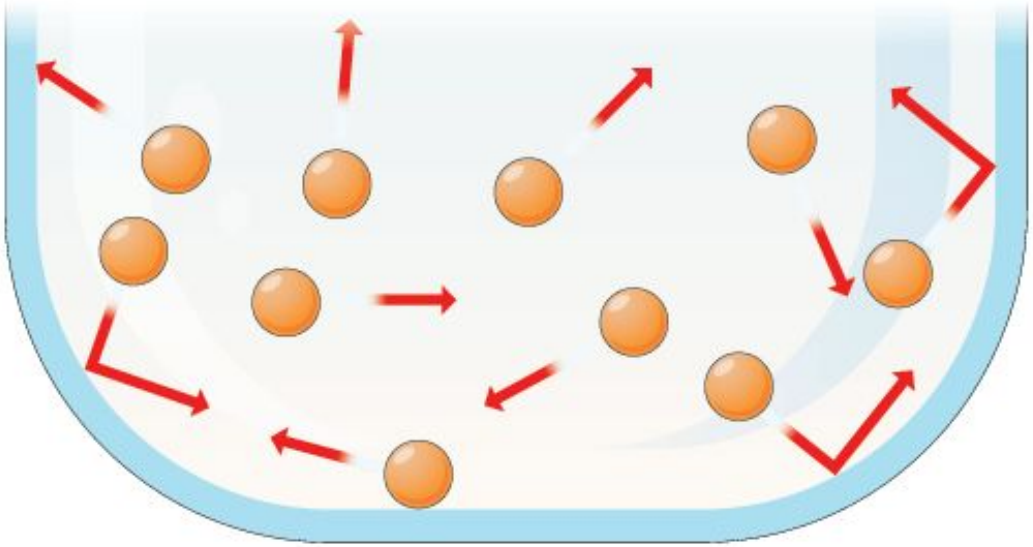
- Holded not strong as in solid. Particles can **slide over each other**. That's why has not definite shape.



Slide over each other

Particles in gas

Forces between particles weak. They **can move easily.** That's why has not definite shape and volume



Compressed air

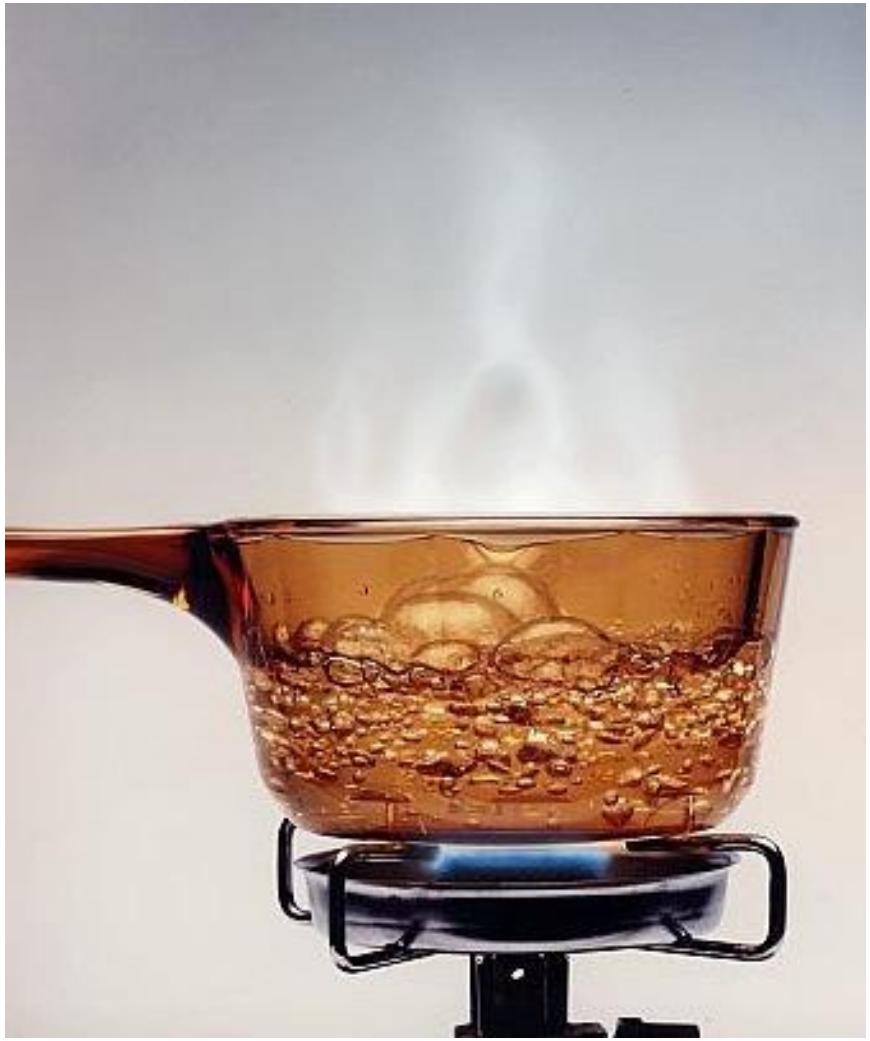
Solid

Liquid

Gas

Temperature

If speed of molecules is great, then the temperature is also great.



Task1. Sort all examples of matter according to their state.

Solid	Liquid	Gas

Water, oil, alcohol, air, oxygen, hydrogen, water vapor, a glass, a spoon, wood, paper, pencil

Task2. Fill in the blanks with appropriate words.

1. Matter can be defined as anything which has _____ and _____ in space.
2. Matter exists in three states: _____ , _____ and _____.

3. In _____, the particles are held strongly but not as tightly as in a solid.
4. One milliliter is equal to one _____cubic meters.
5. The volume of liquids is generally measured in _____.
6. The volume of a regular object is found by multiplying the _____ of the object with its height.

Telegramm

Translate a Matter

1. Масса
2. Материя
3. Табиғат

The lesson is over, thank you.

Good bye!