

# SCIENCE

- WHAT IS SCIENCE?
- WHAT ARE THE SCIENTIFIC SUBJECTS?

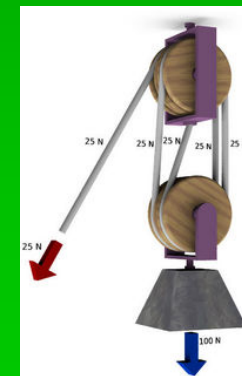
- If it wiggles, it's Biology.



- If it stinks, it's Chemistry.



- If it doesn't work, it's **Physics**.



- If it is petrified, it's Geology



# What is **PHYSICS** ?

- **Physics** is the science of matter and its motion, as well as space and time —the science that deals with concepts such as force, energy, mass, and charge.
- As an experimental science, its goal is to understand the **natural world**.

What kind of changes does physics study?

# What is the difference between a physical and a chemical change?

- If the identity of the substance doesn't change, it is a **PHYSICAL** change.
- If the identity changes and new substances appear, it is a **CHEMICAL** change





It's a **Physical** change

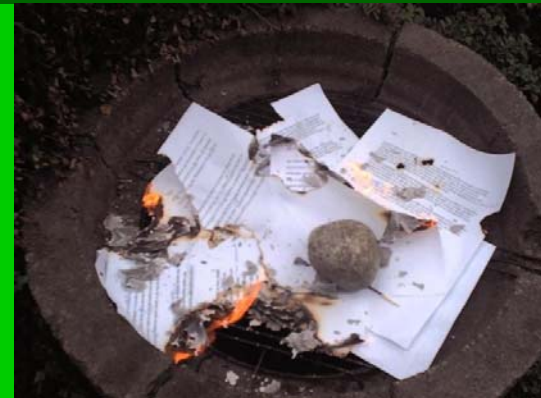


It's a **Chemical** change

# Physical or chemical change? Guess it ...



Physical



Chemical

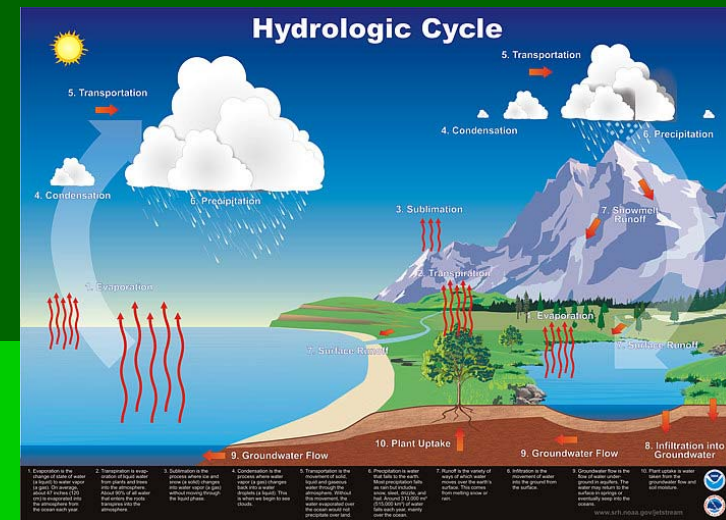
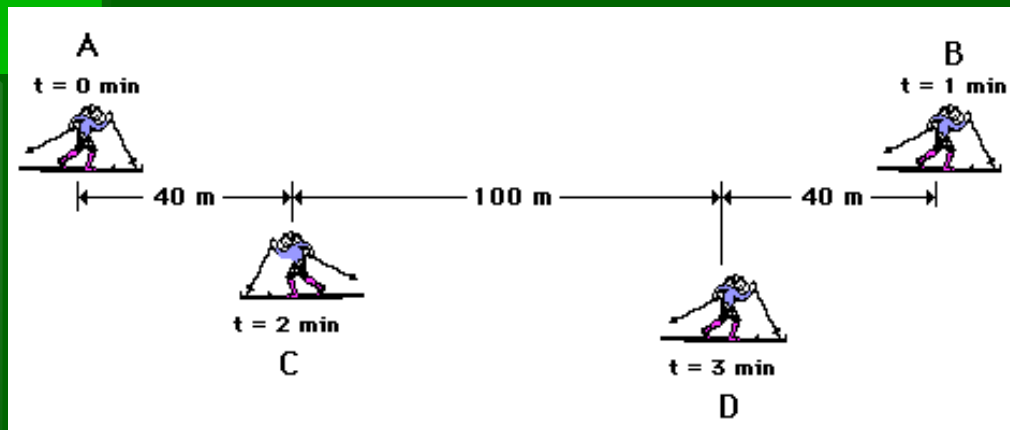
**Chemical : DECOMPOSITION**



**Chemical : COMBUSTION**

**Physical : MOTION**

Position change



**Physical : STATE CHANGE**

Solid – liquid - gas

# Physical or chemical change? Guess it ...



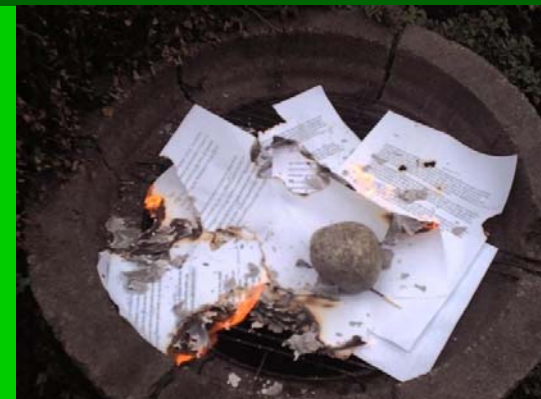
Physical



Chemical



Physical

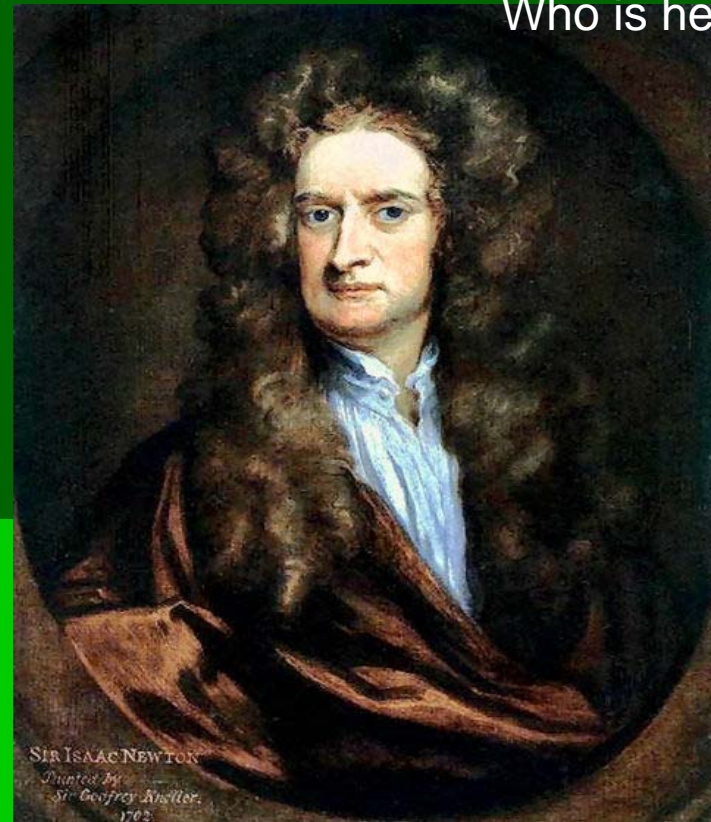


Chemical

# We will study **Classical mechanics** ... what's that?

- Classical mechanics is a model of the physics of forces acting upon bodies.
- It is often referred to as "Newtonian mechanics" after Isaac Newton and his laws of motion.
- Mechanics is subdivided into:
  - statics, which models objects at rest,
  - kinematics, which models objects in motion,
  - and dynamics, which models objects subjected to forces.

Who is he?





# So you're asking, what is PHYSICS?

- Everything in the universe has an effect on every other thing.
- Physicists study those **forces** and **effects**.
- Everything on Earth, everything in our solar system, **everything** in our galaxy, and everything in the universe **moves** and exists because of forces.
- Physics studies those **FORCES** and interactions.

Let's get started and look inside the [physics of motion](#). Go take a look!