



# Anchor Charts

## Crosscutting Concepts



# Patterns

Patterns are things that repeat in a predictable way. We can find patterns in nature, math, music, and many other areas.

For example, all living things need food and water to survive or that the temperature is usually cooler in the morning than in the afternoon.

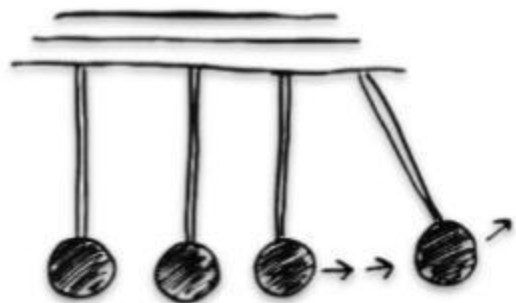


# Cause & Effect

Cause and effect means that one thing (the cause) makes something else happen (the effect).

Scientists ask questions like "What caused this to happen?" and "What will happen if we change something?"

For example, scientists study how vibrating materials create sound, or how temperature impacts freezing and melting.



# Scale, Proportion, and Quantity

Scale, proportion, and quantity describe how things relate to each other in size and amount.

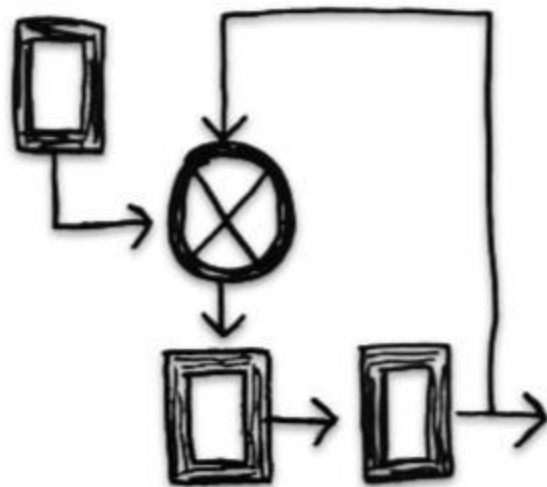
For example, scientists compare the size of a human cell to the size of a person or measure how much water is in a river.



# Systems and System Models

A system is a group of things that work together to do something. We can make models of systems to help us understand how they work.

For example, scientists study how the organs in a human body work together to keep the body healthy.





# Energy and Matter

Energy is what makes things happen, and matter is what things are made of.

For example, scientists study how sunlight provides energy for plants to grow or how water changes from a liquid to a gas when it boils.



# Structure and Function

Structure and function describe how things are built and what they do.

For example, scientists study how the shape of a bird's beak helps it catch food or how the shape of a leaf helps it capture sunlight.



# Stability and Change

Stability and change describe how things stay the same or change over time. Some things change quickly, while others change slowly or not at all.

For example, scientists study how populations of animals change over time or how the weather can affect the stability of an ecosystem.

