

# CROSS CUTTING concepts CCC

## PATTERNS



Structures or events are often consistent & repeated

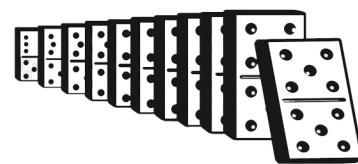
## STABILITY & CHANGE



Over time, a system might stay the same or become different, depending on a variety of factors.

## CAUSE & EFFECT

3



Events have causes: sometimes simple, sometimes multifaceted.

## SCALE, PROPORTION & QUANTITY



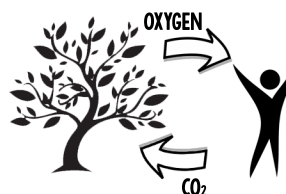
Different measures of size & time affect a system's structure, performance & our ability to observe phenomena.

## MATTER & ENERGY



Tracking energy & matter flows into, out of, & within systems helps one understand their system's behavior.

## SYSTEMS



A set of connected things or parts forming a complex whole.

## STRUCTURE & FUNCTION



The way an object is shaped or structured determines many of its properties & functions

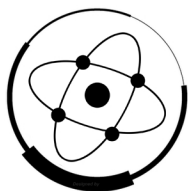
# SCIENCE & ENGINEERING PRACTICES



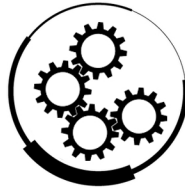
Asking ?'s & Defining Problems



Using Mathematics & Computational Thinking



Developing & Using Models



Constructing Explanations & Designing Solutions



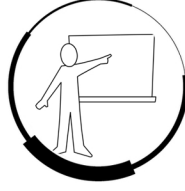
Planning & Carrying Out Investigations



Engaging in Argument from Evidence



Analyzing & Interpreting Data



Obtaining, Evaluating & Communicating Information