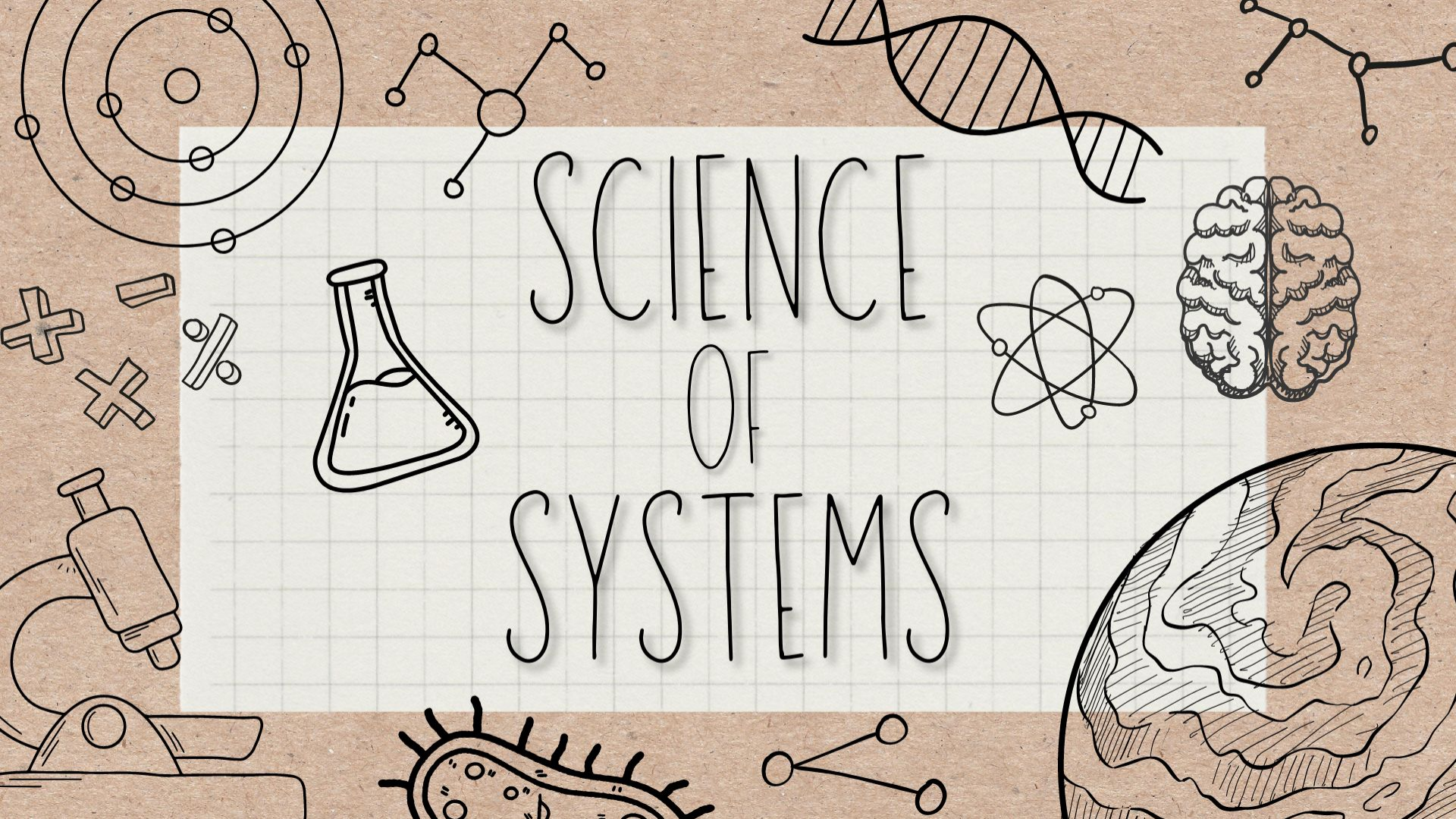
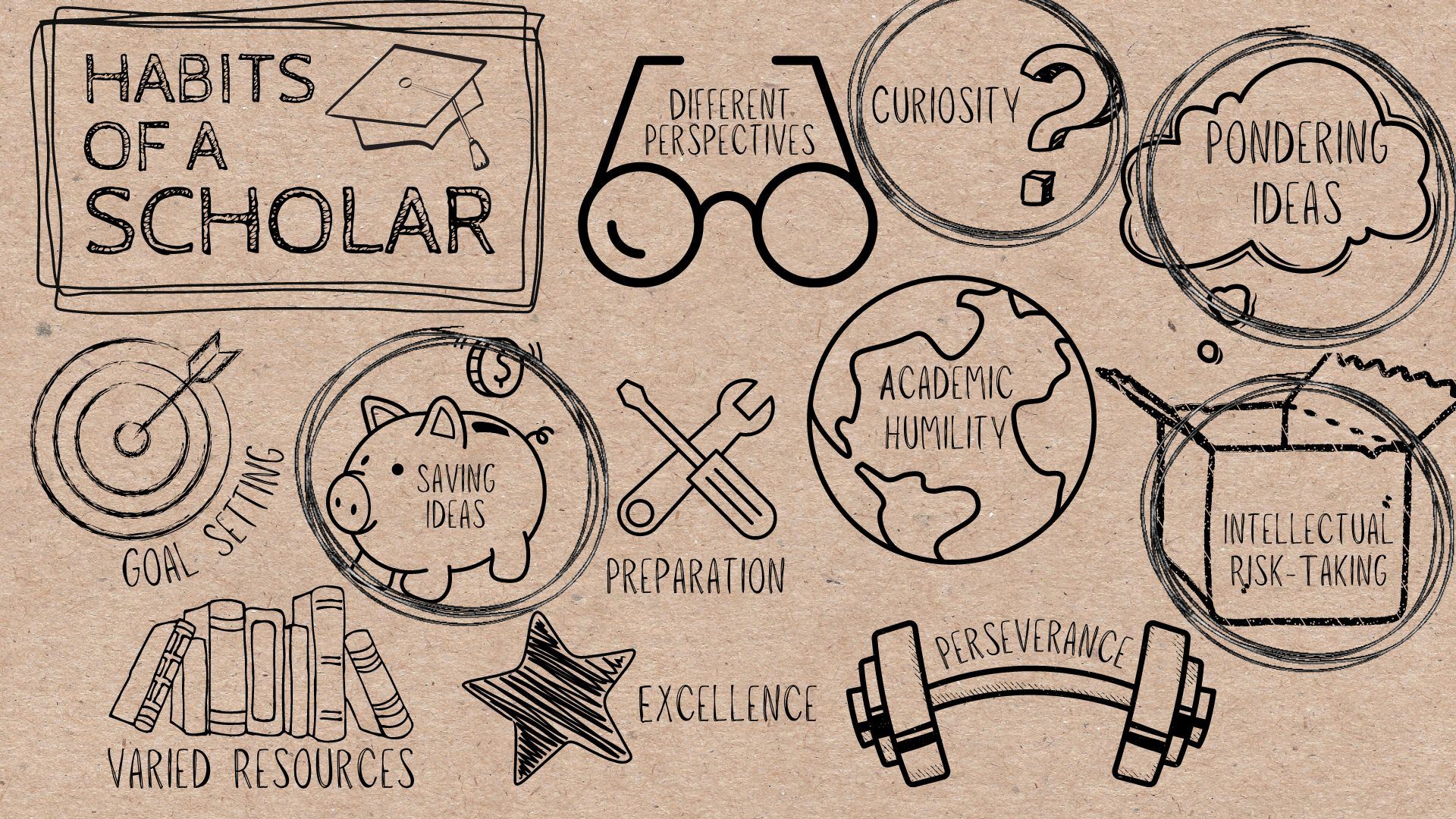
SCIENCE OF SYSTEMS

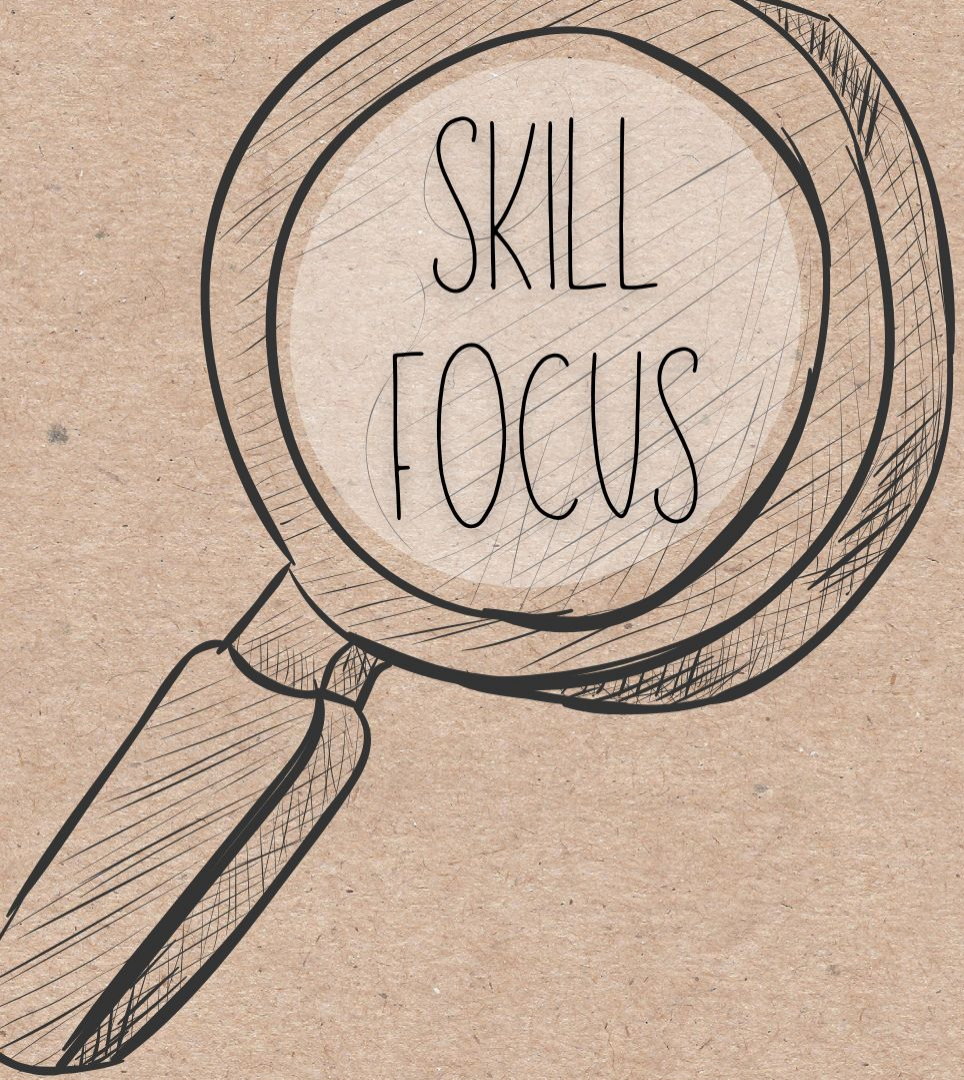


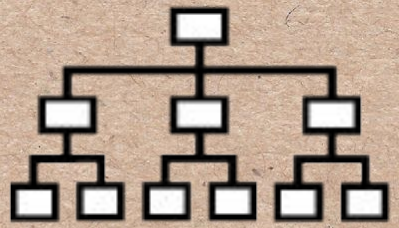
LET'S GET CURIOUS!


HABITS OF A SCHOLAR
DIFFERENT PERSPECTIVES
CURIOSITY
PONDERING IDEAS
GOAL SETTING
SAVING IDEAS
PREPARATION
ACADEMIC HUMILITY
INTELLECTUAL RISK-TAKING
VARIED RESOURCES
EXCELLENCE
PERSEVERANCE

What is a system?

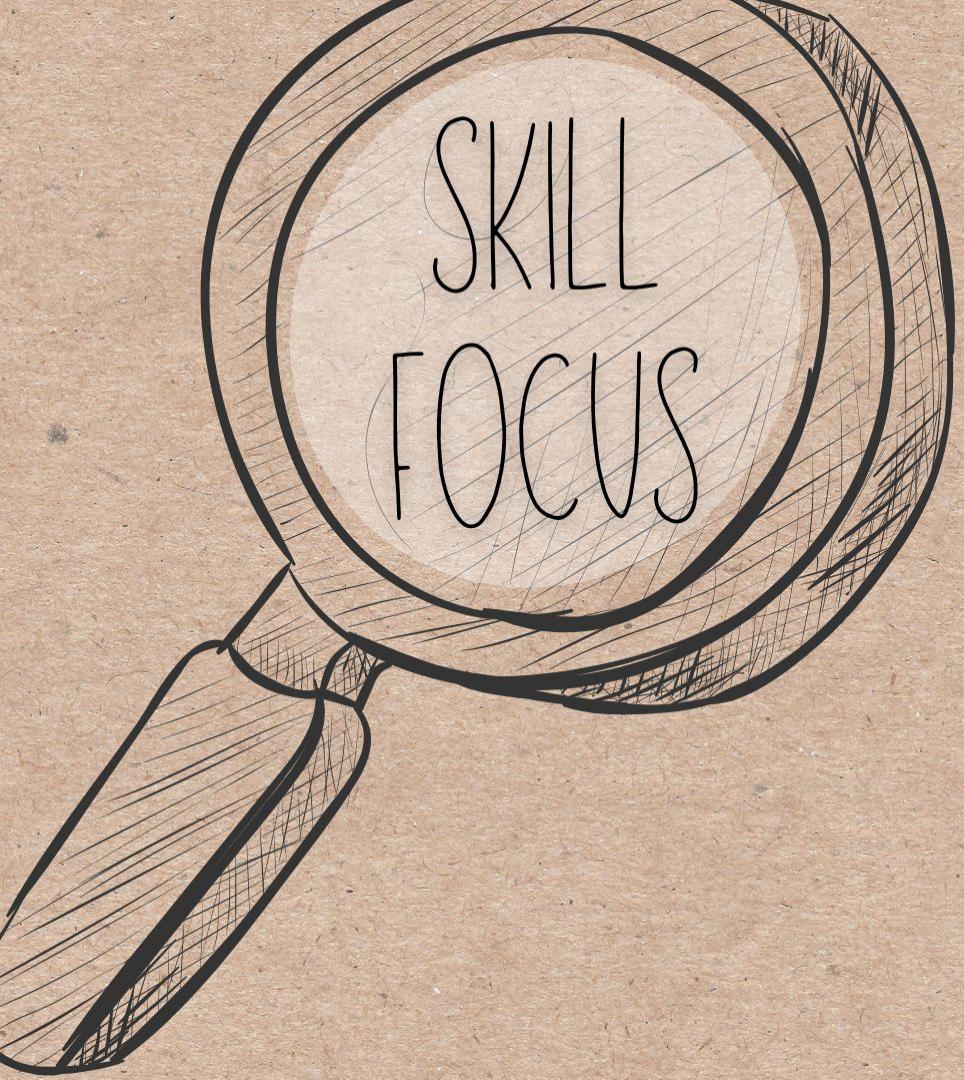
Brainstorm a list of systems that come to mind.





Rules

Laws, expectations, standards and methods in a given field



Big Idea

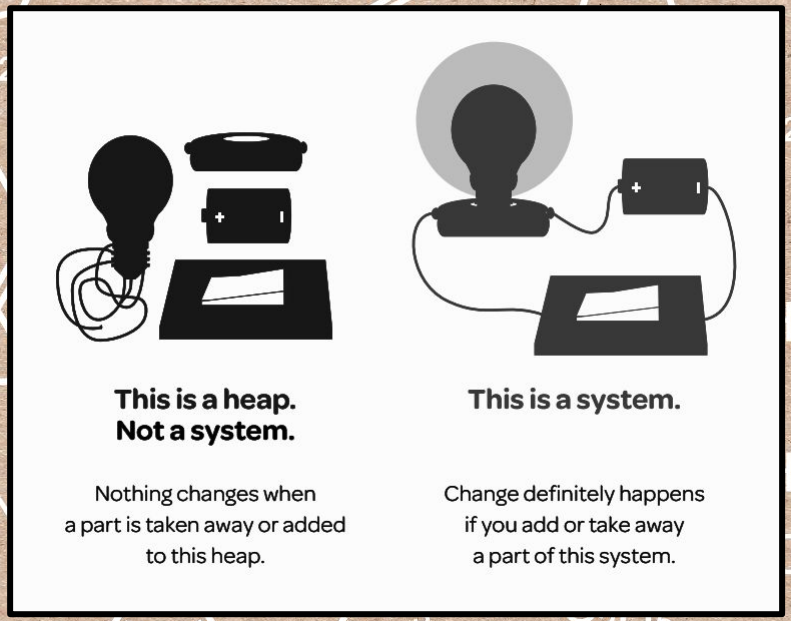
Overarching statement about a theme or topic

Based on your definition of a system, does this bag of items contain a system?

Based on your definition of a system, does this new bag of items contain a system?

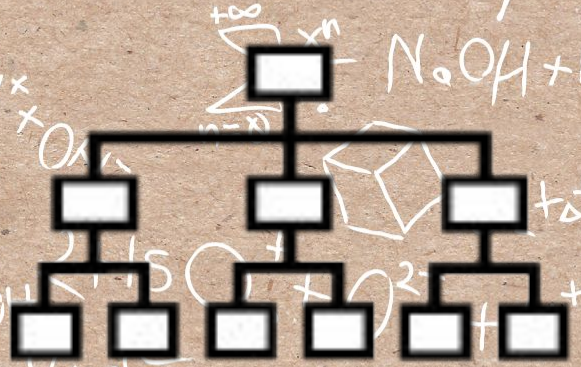
System vs Heap

A **heap** is an unorganized collection of items.



What are Systems?

Systems Test



Generalizations

Systems

- Systems have parts that work to complete a task.
- Systems are composed of subsystems.
- Parts of systems are interdependent upon one another and form symbiotic relationships.
- A system may be influenced by other systems
- Systems follow rules.
- Systems interact.

SKILL STATION: ENGINEER

EXPECTATIONS

- WHAT TOOLS ARE AVAILABLE?
- WHAT DOES IT LOOK LIKE?
- WHAT DOES IT SOUND LIKE?
- WHAT DOES IT FEEL LIKE?
- WHAT DEFINES SUCCESS?

ENGINEER

As engineers, we are...

- Collaborating
- Constructing
- Communicating
- Evaluating

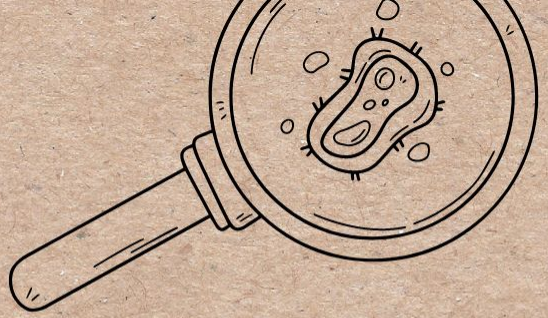
SKILL STATIONS

Create

ENGINEER

Use the materials in the Engineer Station to create an example of a system.

SOLVE



LET'S REFLECT...

1. Looking at the system you created in Engineer, what outside factors would most likely cause your system to fall apart?
2. How much change would there be in your system if pieces were put in a different place?
3. Which generalization statement does your system model prove and how?
4. Are there any other parts that could be added to your system that would improve it?