# Grass Valley Professional Development Systems Overview
# "What's your system?"

August 9, 2020

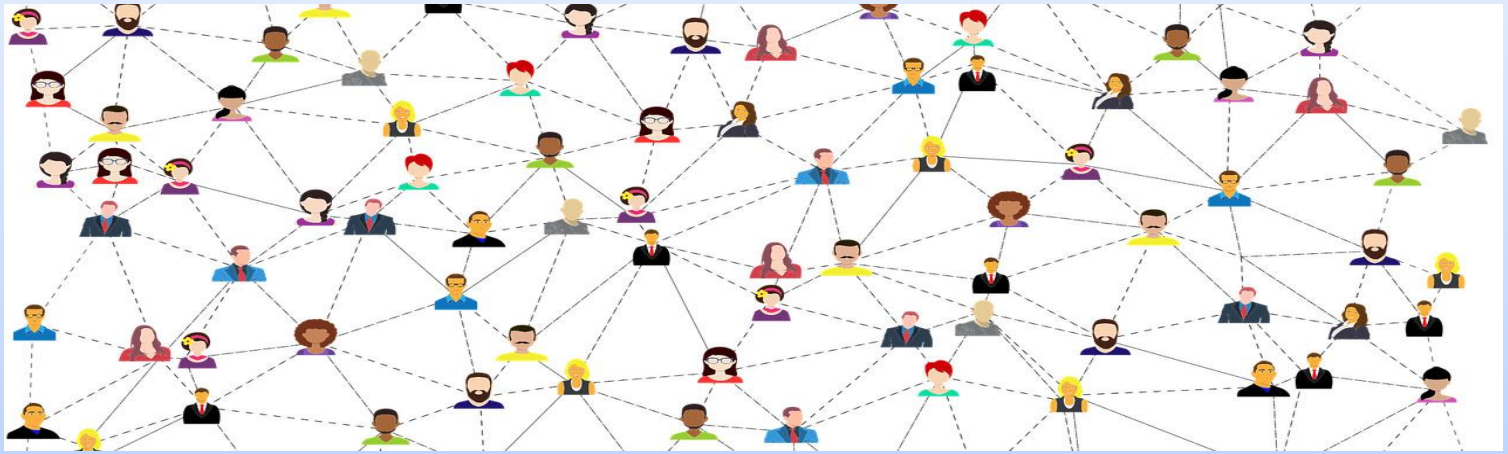
Faciliatator: Mary Quinnan

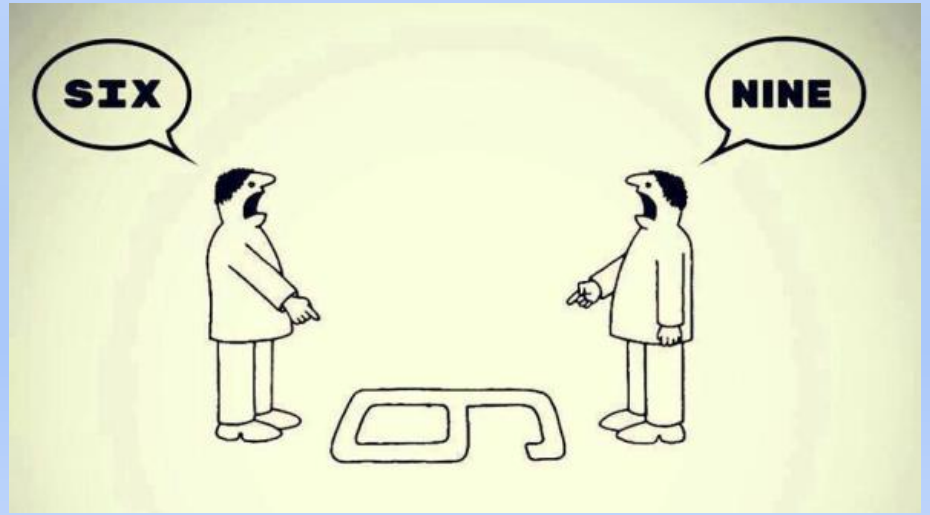
Waters Center For Systems Thinking

CROSSED

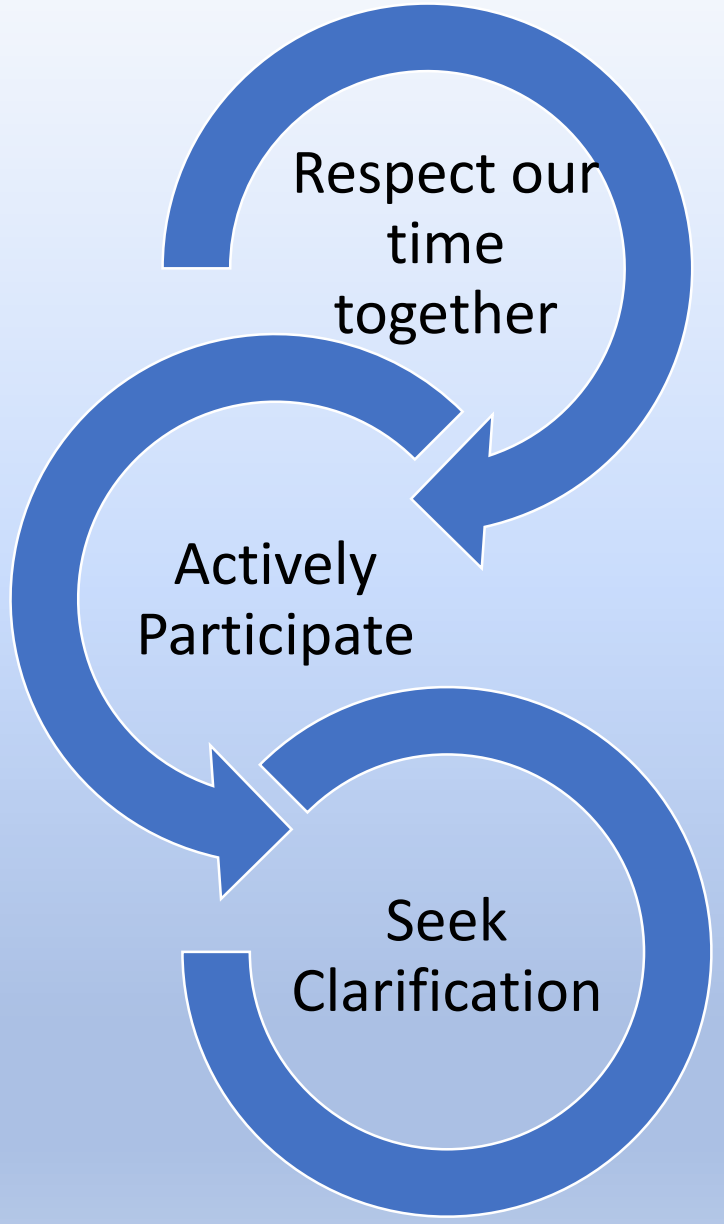
UNCROSSED

# THE BIG PICTURE FOR TODAY





# *NORMS*




***All Voices are Important***

https://www.youtube.com/watch?v=0nrzDdceMME

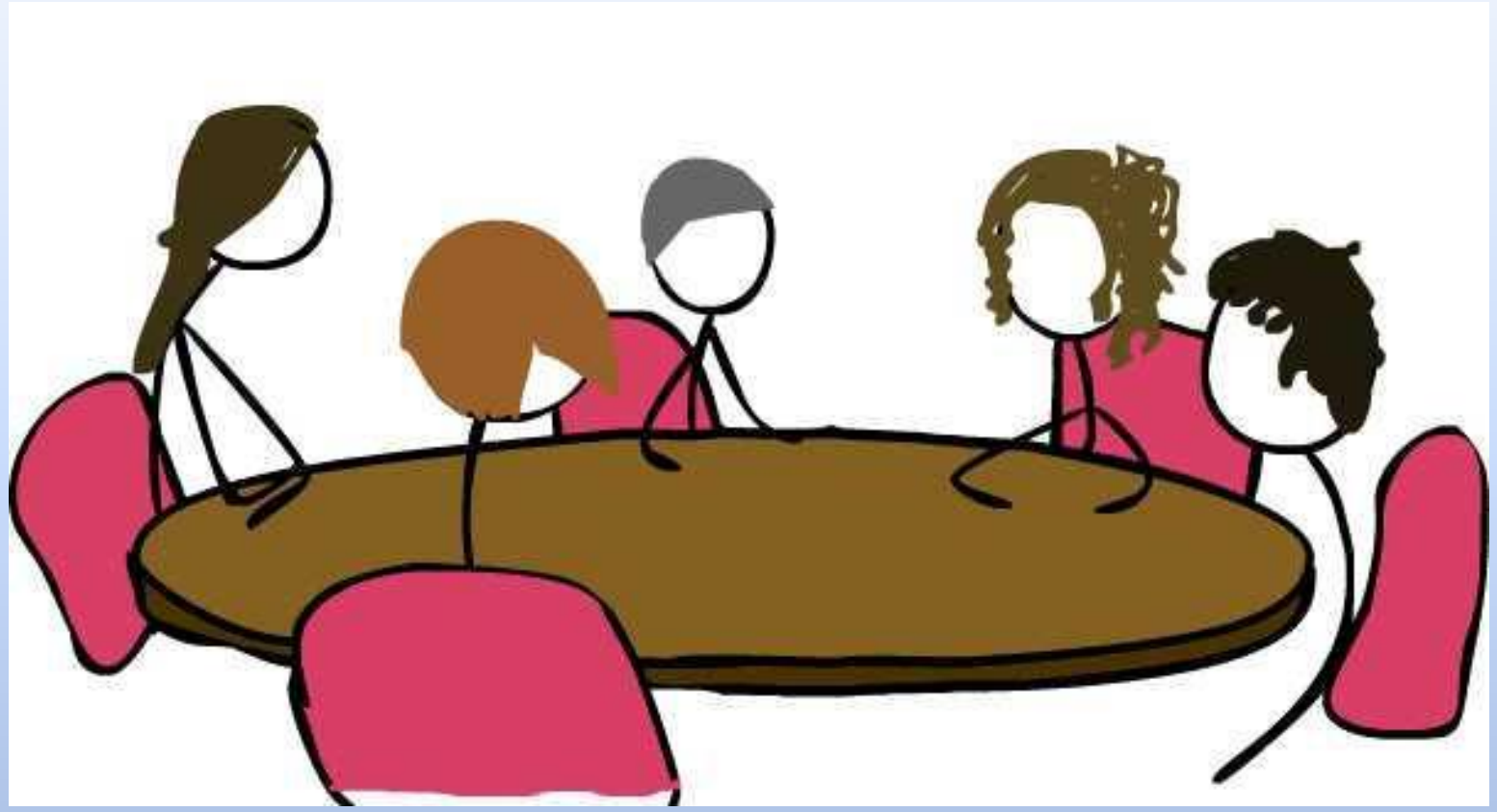
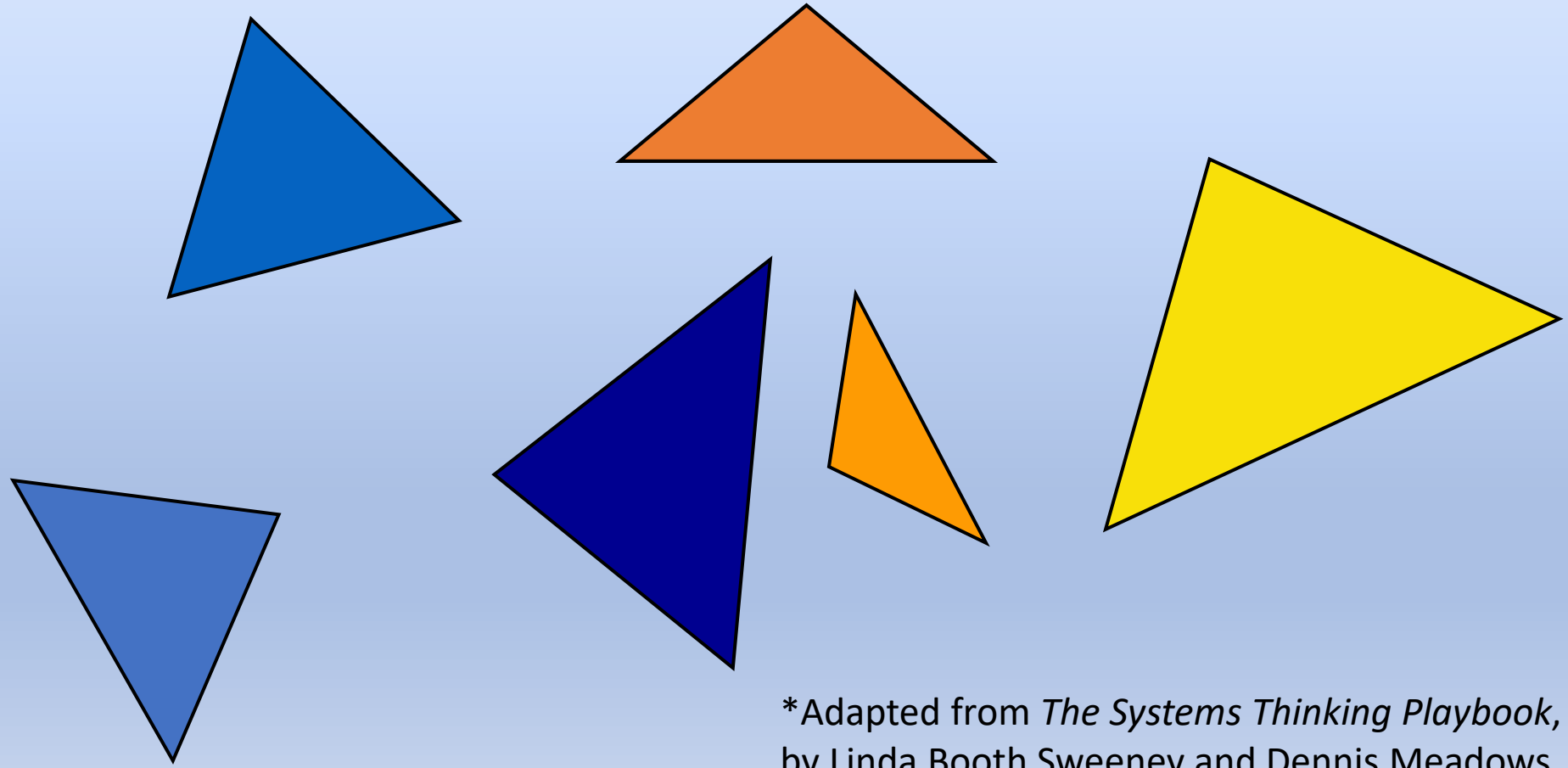


Table Talk

What do you miss?  Be ready to share.

# System Simulation*

## Discovering characteristics of a system



*Adapted from *The Systems Thinking Playbook*, by Linda Booth Sweeney and Dennis Meadows

# System Simulation*

## Discovering characteristics of a system

- ✓ Stand in a circle, facing inward.
- ✓ Choose two people to be your references. Keep your reference points secret.
- ✓ Once the facilitator says, “Go,” you must move to be equal distant from both of your references. If the reference(s) move, you must move as necessary to maintain equal distance.

*Adapted from *The Systems Thinking Playbook*, by Linda Booth Sweeney and Dennis Meadows

# Debrief

**Observers**

What did you observe during the simulation?

What rules or policies were in place to generate the dynamics you observed?

What theories do you have about the structure of the simulation?

How challenging was it to understand the system just by observing it?

**Participants**

What did you notice during the simulation?

What was your experience like as a participant in this activity?

What were some characteristics of the simulation?

***Who in the simulation had the most influence? Why?***

# *So, what is a system?*

**A system is an interconnected set of elements that is organized in a way that achieves something**

**Donella Meadows**

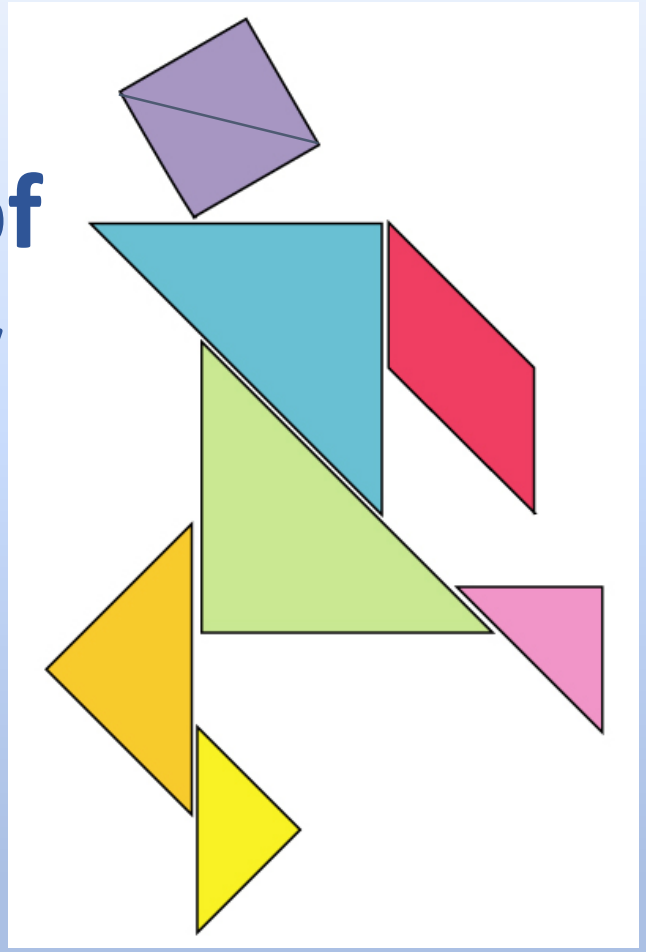
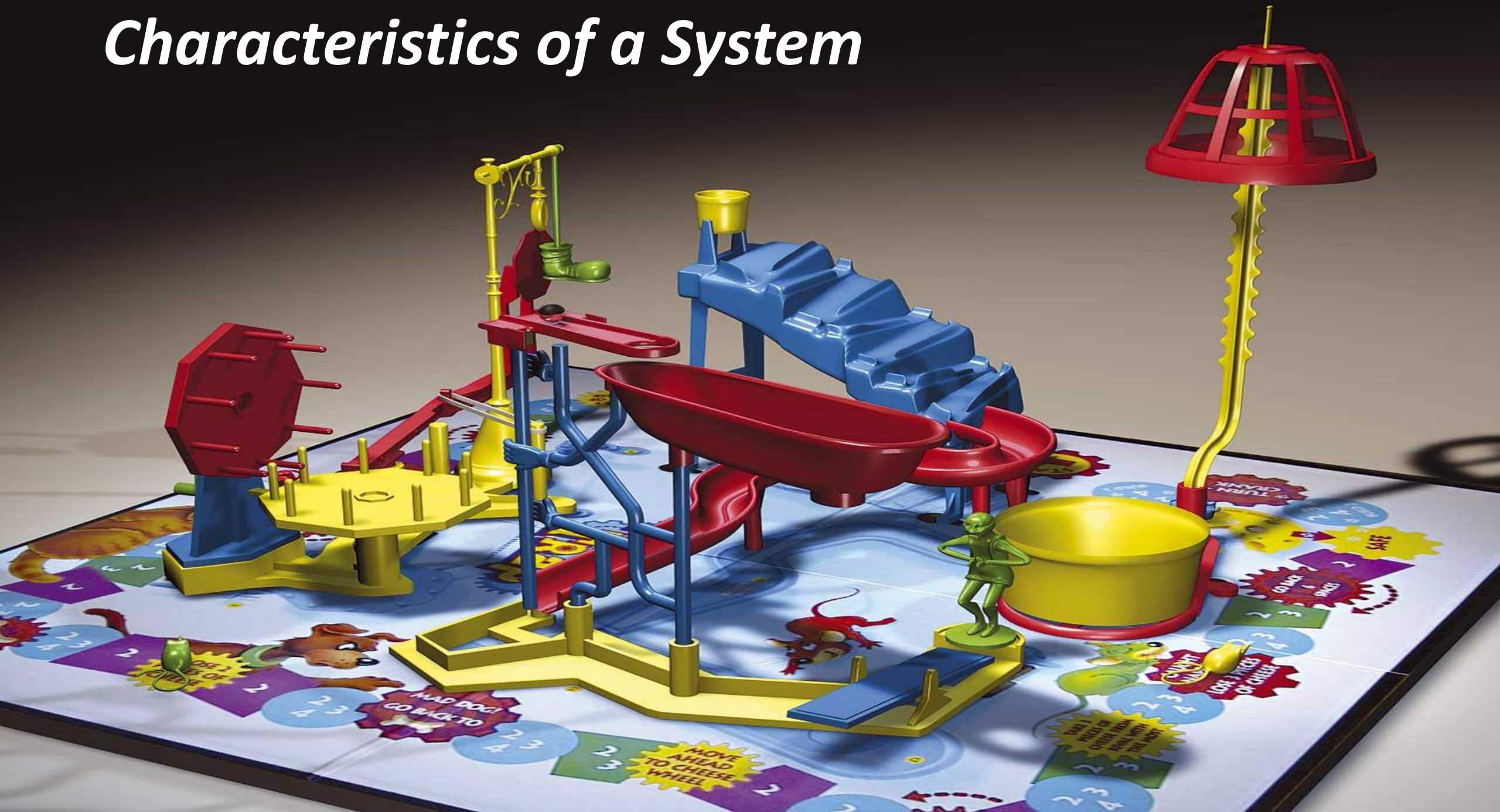


**Table Talk**

# *Characteristics of a System*



# *Characteristics of Systems*

***Goal*** *- Purpose*

***Elements or Parts*** *- Structure*

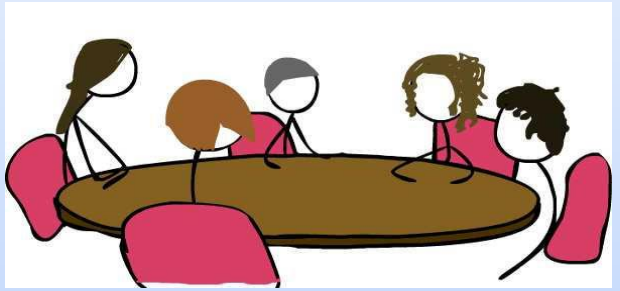
***Interconnections*** *- Relationships*

***Dynamic*** *- Change over time*

# Goal or Purpose?

Grass Valley School District

# What are some elements in our school system?



**Using your large poster paper,**
**List all the part or elements in the Grass Valley School District System.**

Environment

people

resources

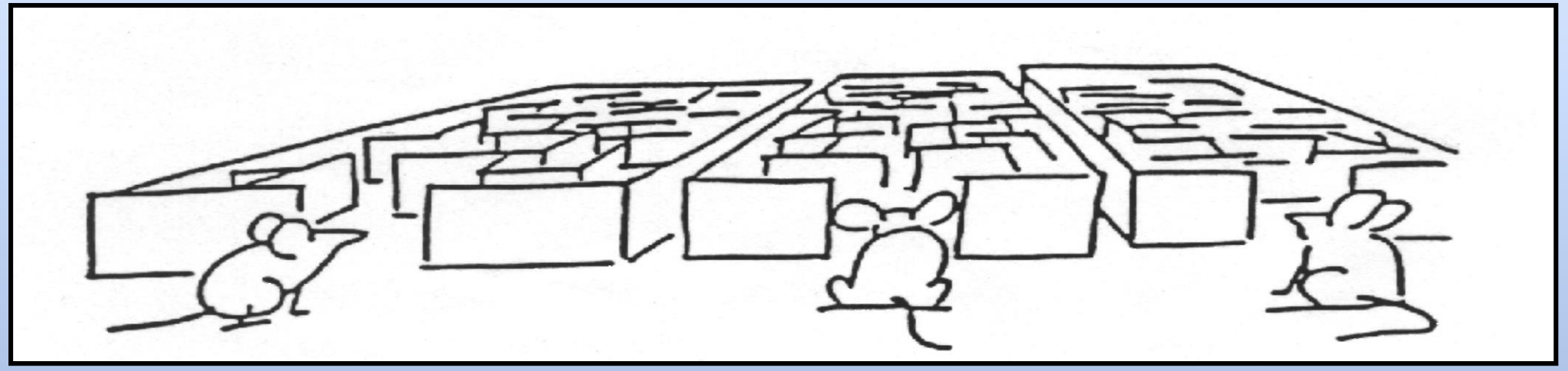
policy

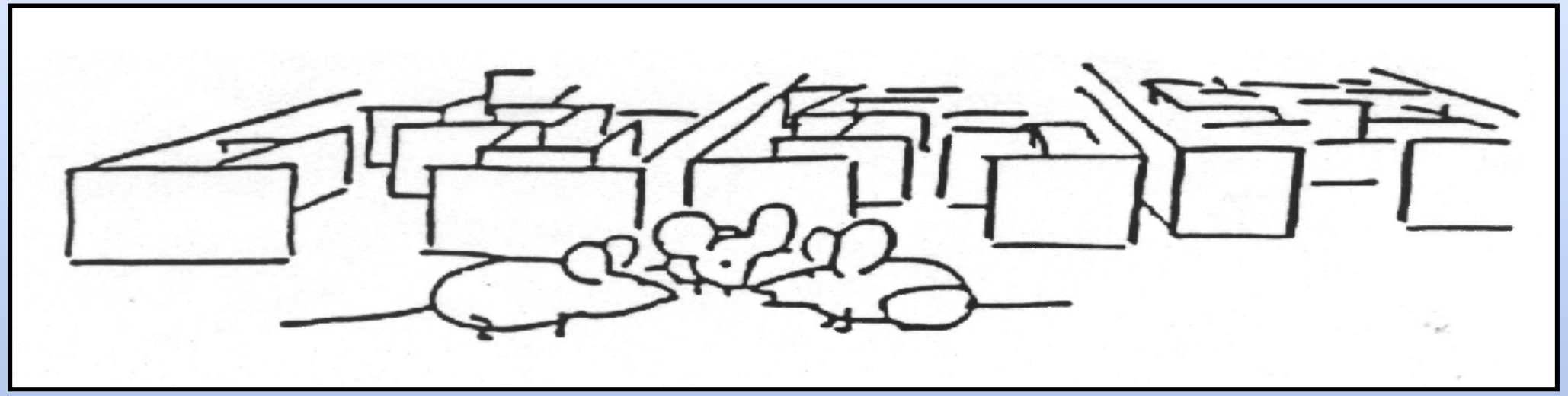
departments

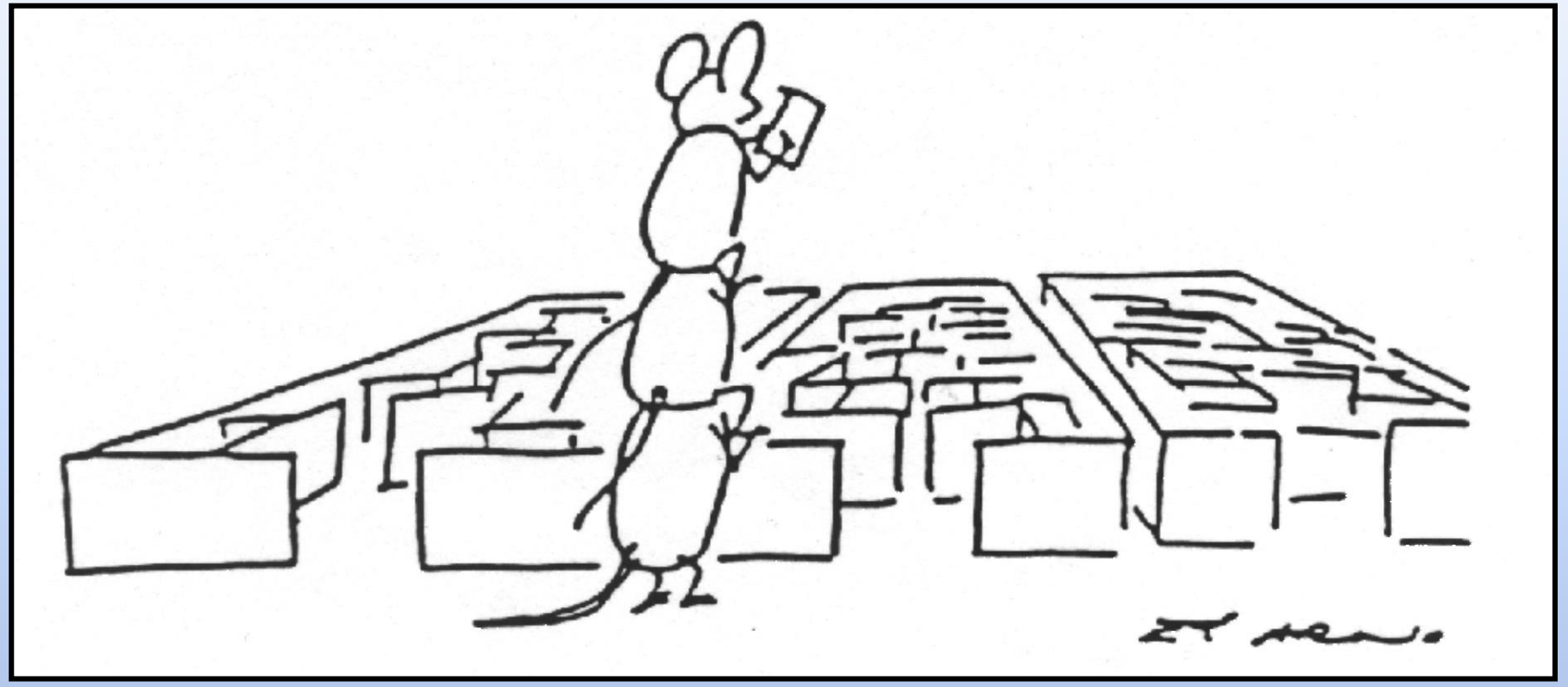
*How do these systems interact with each other? Describe the relationships they have with each other.*

*What are some changes your systems has experienced?*

Why?!

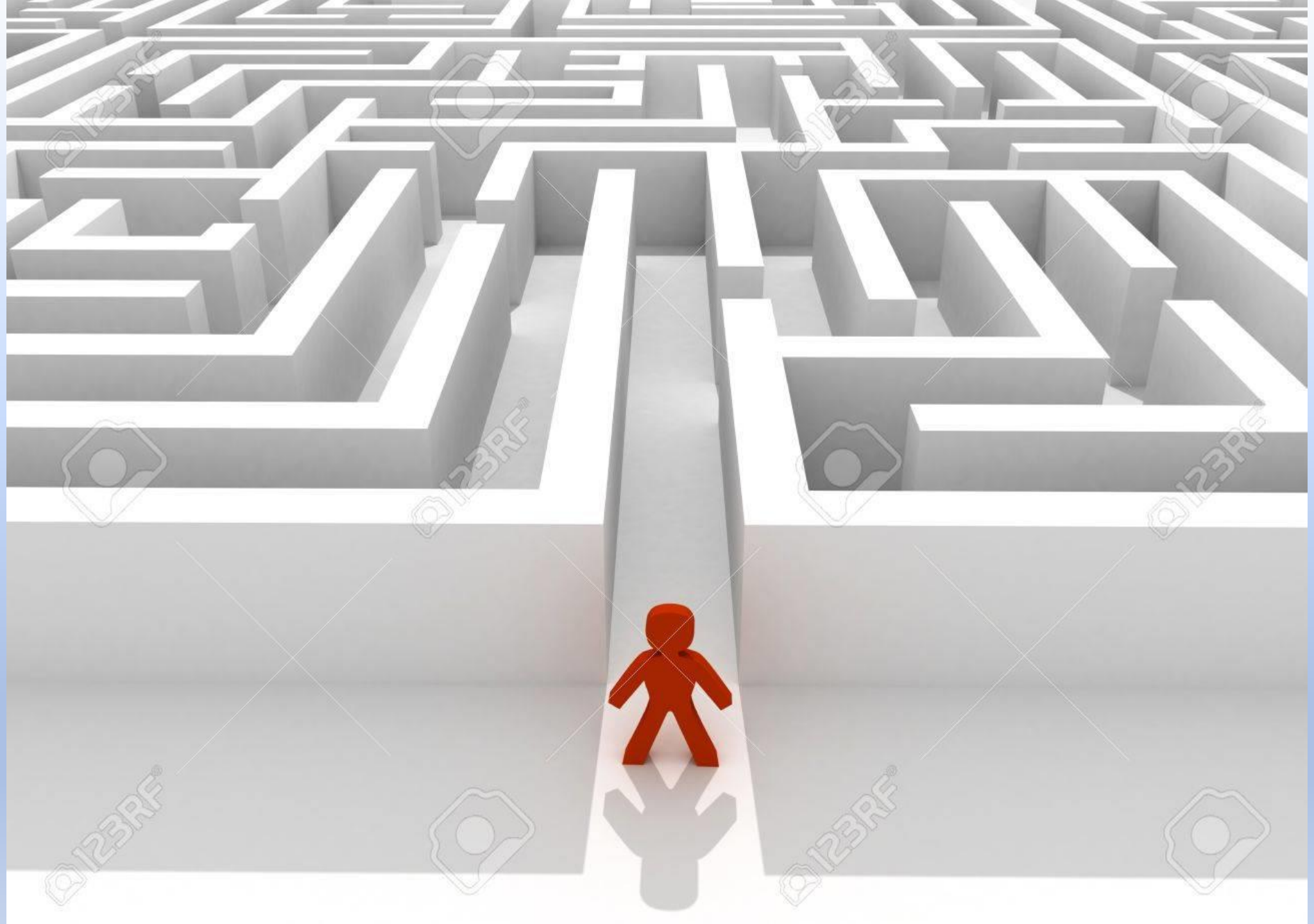






Your system…any system is perfectly designed to produce the results you are obtaining.

(Adapted from Carr, 2008)

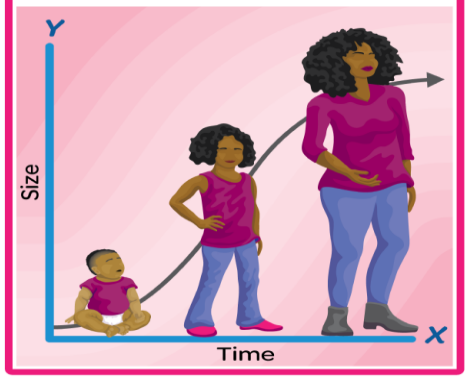


# HABITS OF A SYSTEMS THINKER

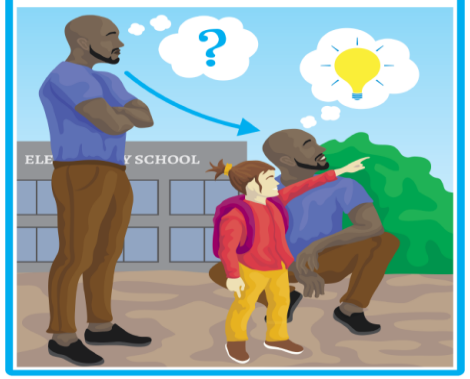
2020 Edition

SEEKS TO UNDERSTAND ***THE BIG PICTURE***

OBSERVES HOW ELEMENTS WITHIN SYSTEMS ***CHANGE OVER TIME***, GENERATING PATTERNS AND TRENDS




***CHANGES PERSPECTIVES*** TO INCREASE UNDERSTANDING




IDENTIFIES THE ***CIRCULAR NATURE*** OF COMPLEX CAUSE AND EFFECT RELATIONSHIPS

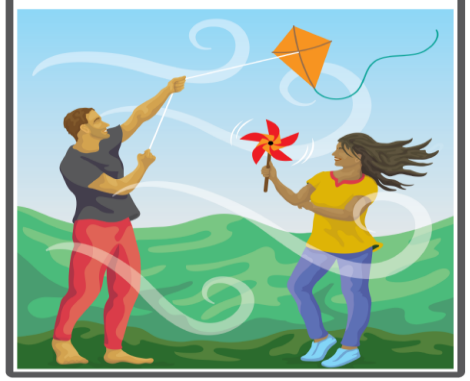
CONSIDERS HOW ***MENTAL MODELS*** AFFECT CURRENT REALITY AND THE FUTURE

***CONSIDERS AN ISSUE FULLY*** AND RESISTS THE URGE TO COME TO A QUICK CONCLUSION

USES UNDERSTANDING OF SYSTEM STRUCTURE TO IDENTIFY POSSIBLE ***LEVERAGE ACTIONS***

RECOGNIZES THE IMPACT OF ***TIME DELAYS*** WHEN EXPLORING CAUSE AND EFFECT RELATIONSHIPS

RECOGNIZES THAT A SYSTEM'S STRUCTURE ***GENERATES ITS BEHAVIOR***



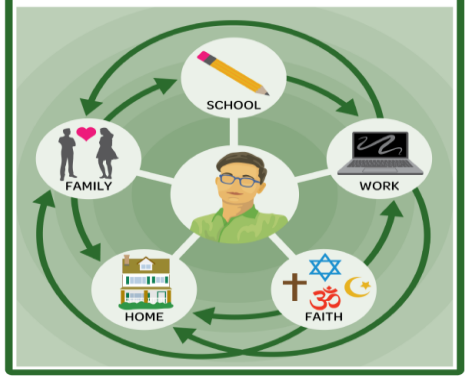
***CONSIDERS*** SHORT-TERM, LONG-TERM AND UNINTENDED ***CONSEQUENCES*** OF ACTIONS

CHECKS RESULTS AND CHANGES ACTIONS IF NEEDED: ***"SUCCESSIVE APPROXIMATION"***

SURFACES AND ***TESTS ASSUMPTIONS***

PAYS ATTENTION TO ***ACCUMULATIONS*** AND THEIR RATES OF CHANGE

MAKES ***MEANINGFUL CONNECTIONS*** WITHIN AND BETWEEN SYSTEMS

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# Habits vs. Goals

Goal

10,000 steps for today

Habit

Making physical activity a daily practice

Goal

Learn about Systems Thinking by taking a workshop or reading a book

Habit

Develop everyday Habits of a Systems Thinker through intentional practice

# Bruce Lee

I fear not the man
who has practiced
10,000 kicks once,
but I fear the man
who has practiced
one kick 10,000 times.

InspirationBoost.com

# HABIT SORT

IDENTIFIES THE CIRCULAR NATURE OF COMPLEX CAUSE AND EFFECT RELATIONSHIPS
RECOGNIZES THAT A SYSTEM'S STRUCTURE GENERATES ITS BEHAVIOR
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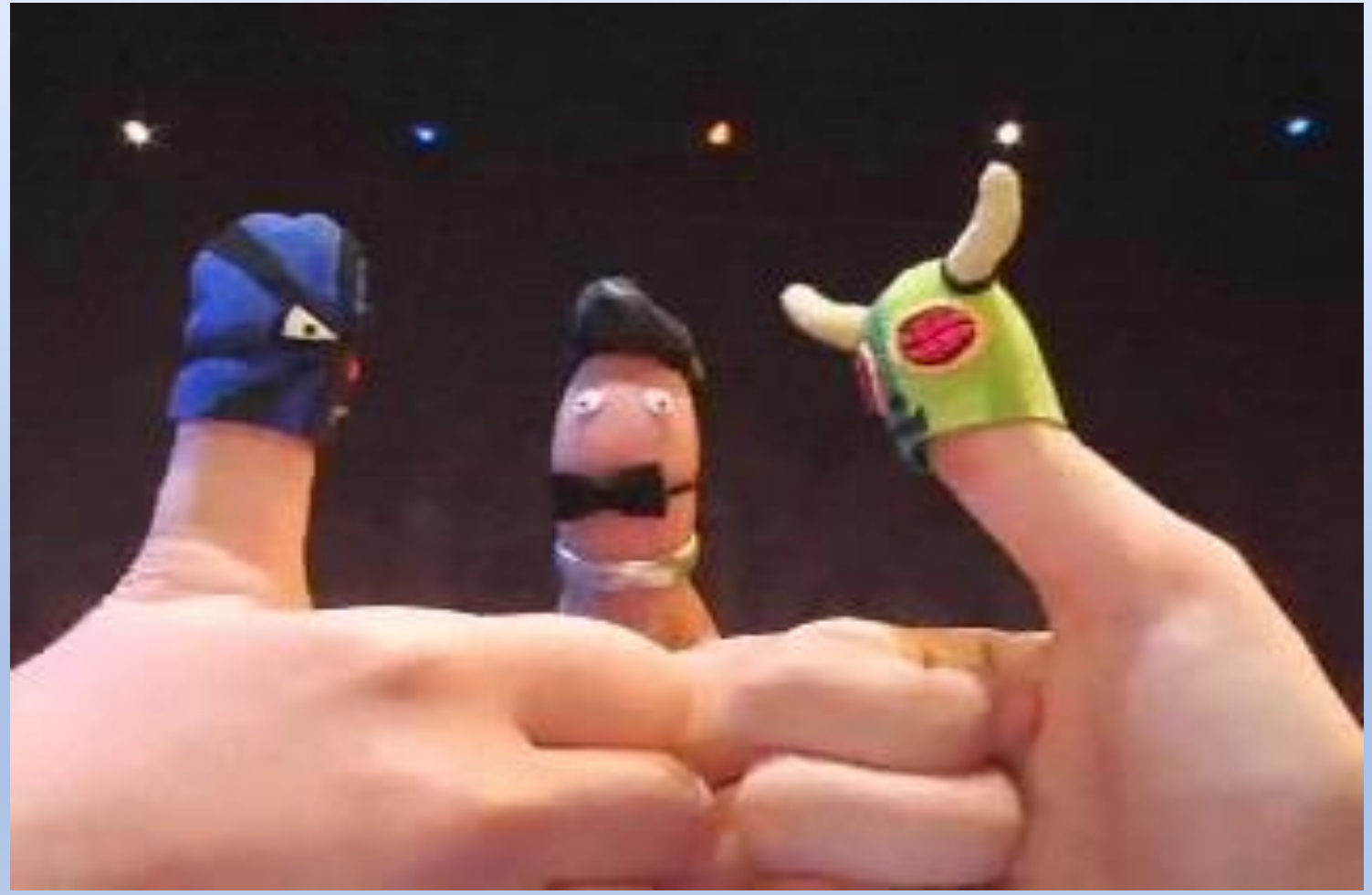
CHANGES PERSPECTIVES TO INCREASE UNDERSTANDING

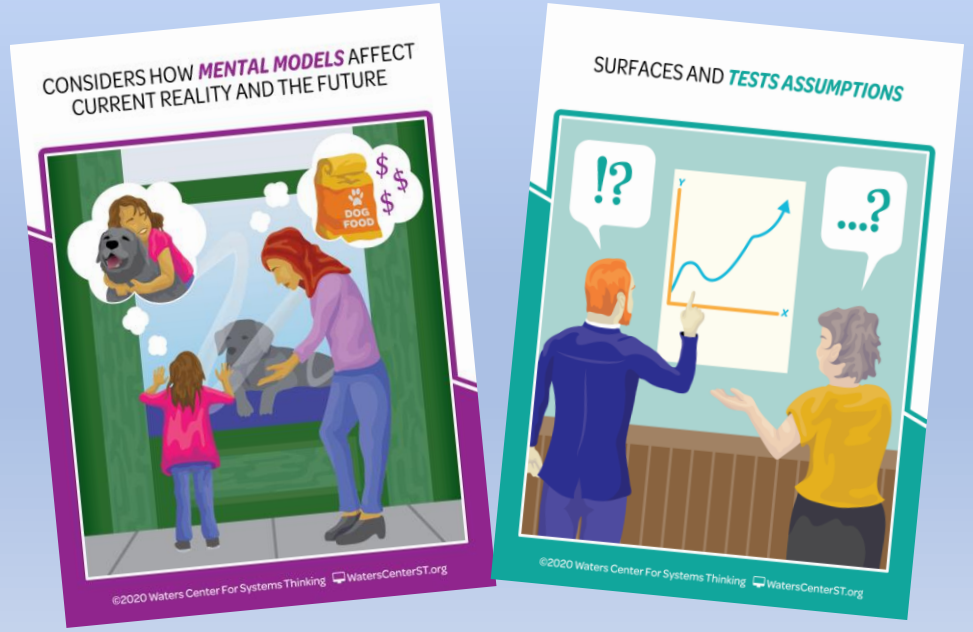
***What Habits were the mice practicing?***

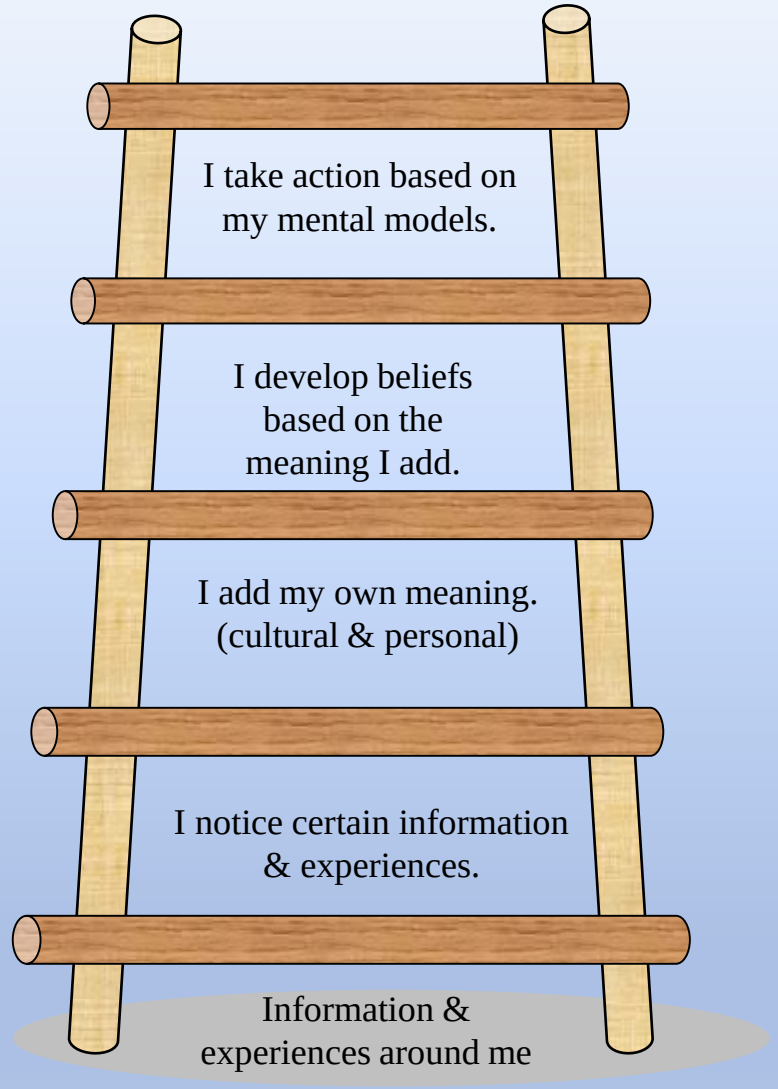
# THUMB WRESTLE



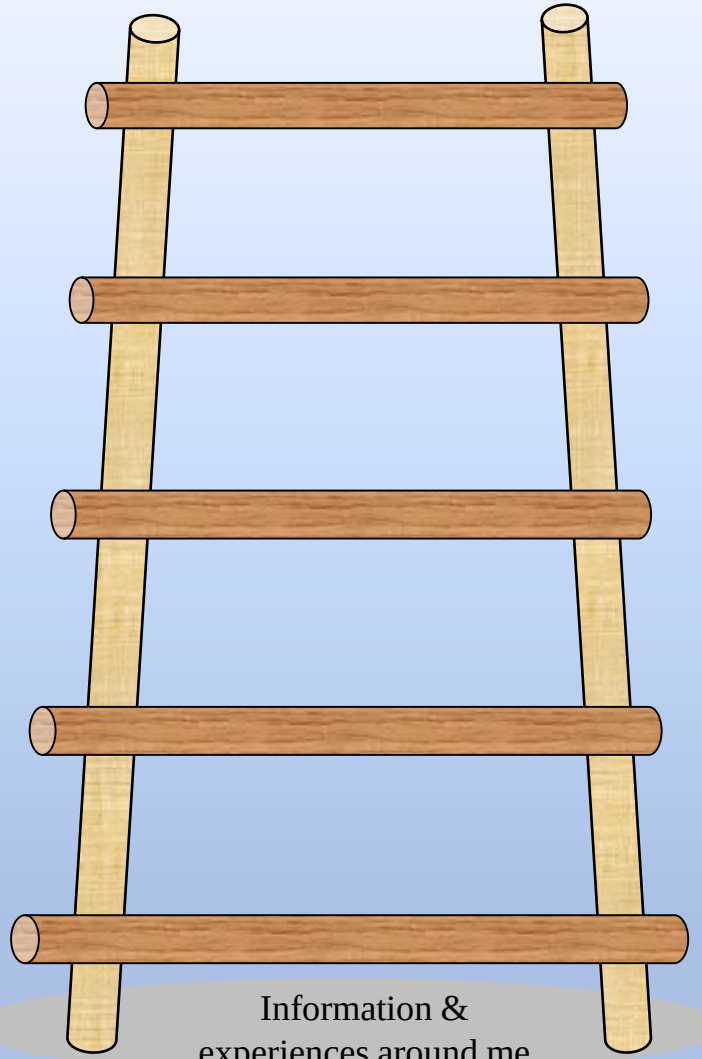
*“To break a mental model is harder than splitting an atom.” Albert Einstein*

- Mental models are personal beliefs, values, and perceptions that control what we see, how we interpret what we see, and the beliefs we develop based on what we see.
- They are deeply buried and hidden from our awareness.
- This creates a barrier to a deep understanding of systems.

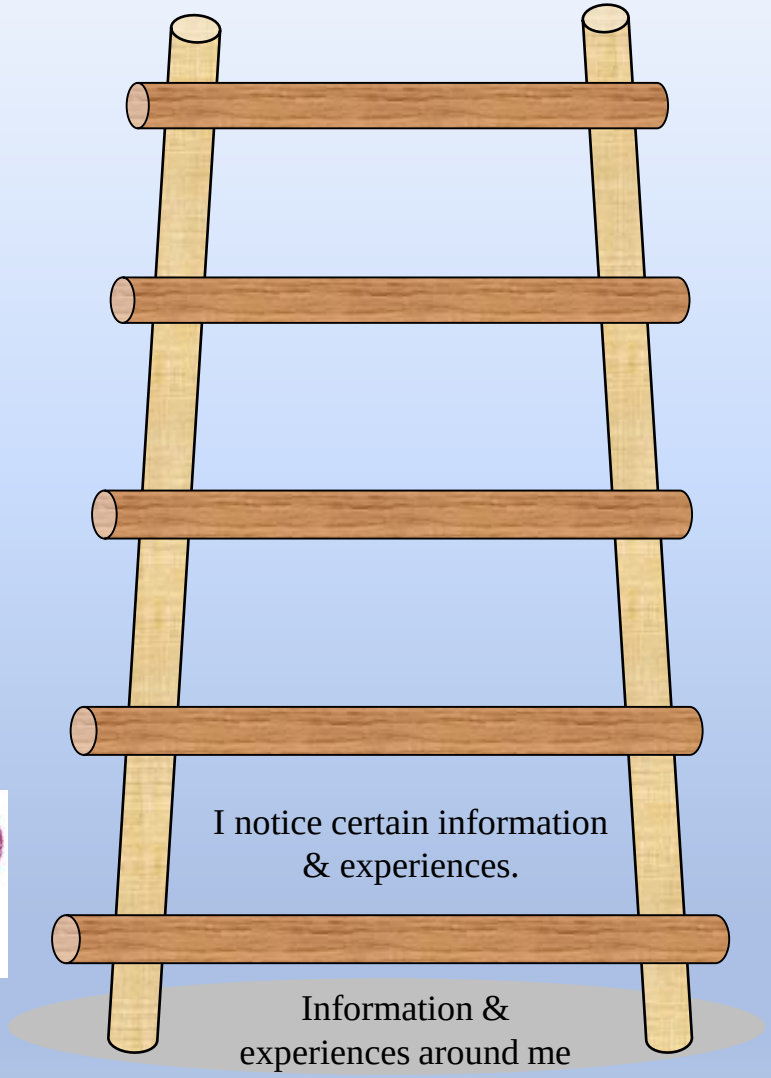





# LADDER OF INFERENCE



Information &
experiences around me


I notice certain information
& experiences.
Information &
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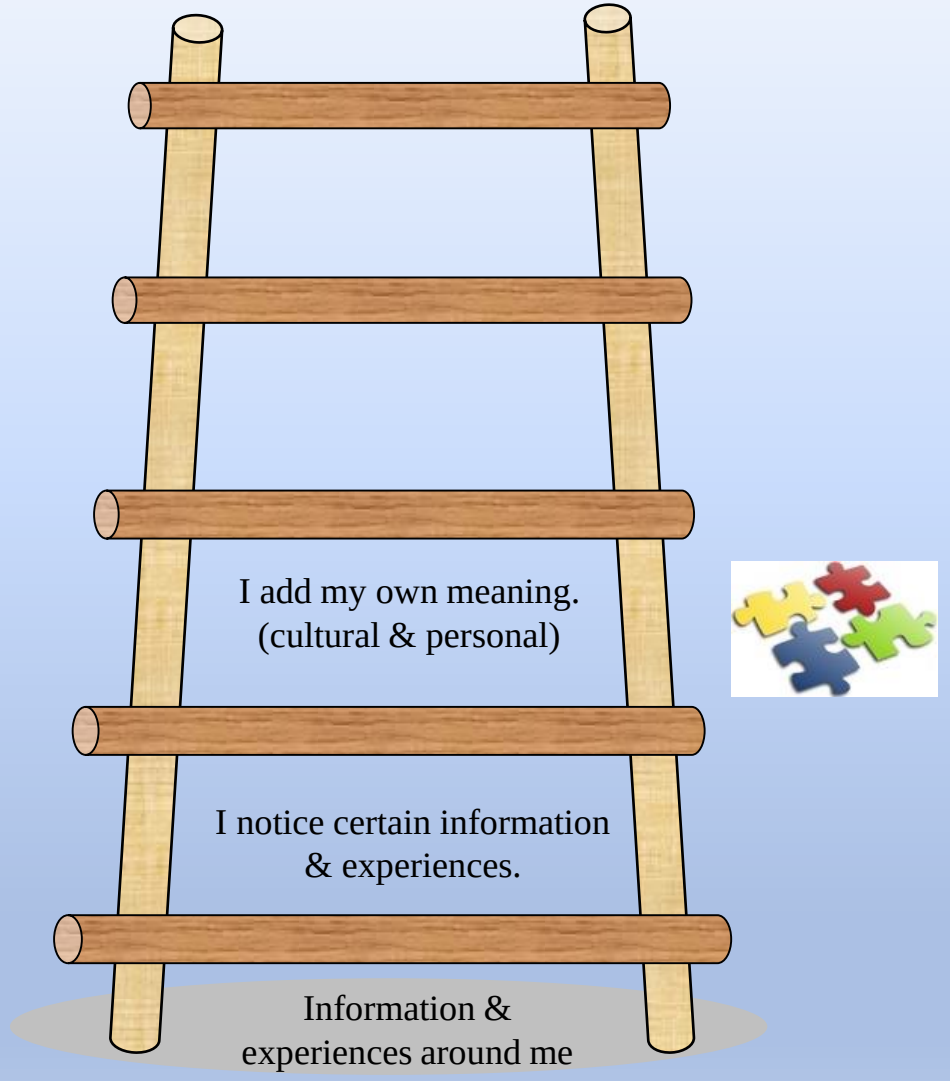
I add my own meaning.
(cultural & personal)
I notice certain information
& experiences.
Information &
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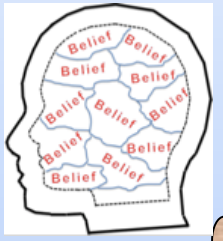
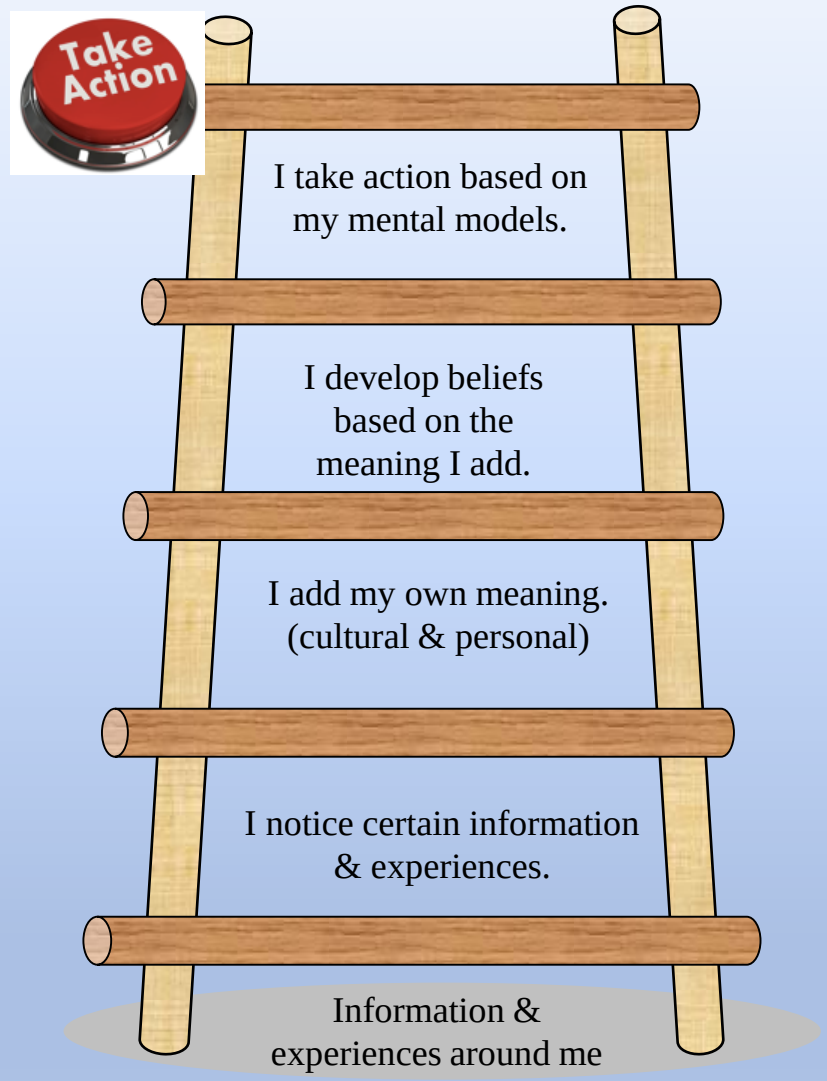


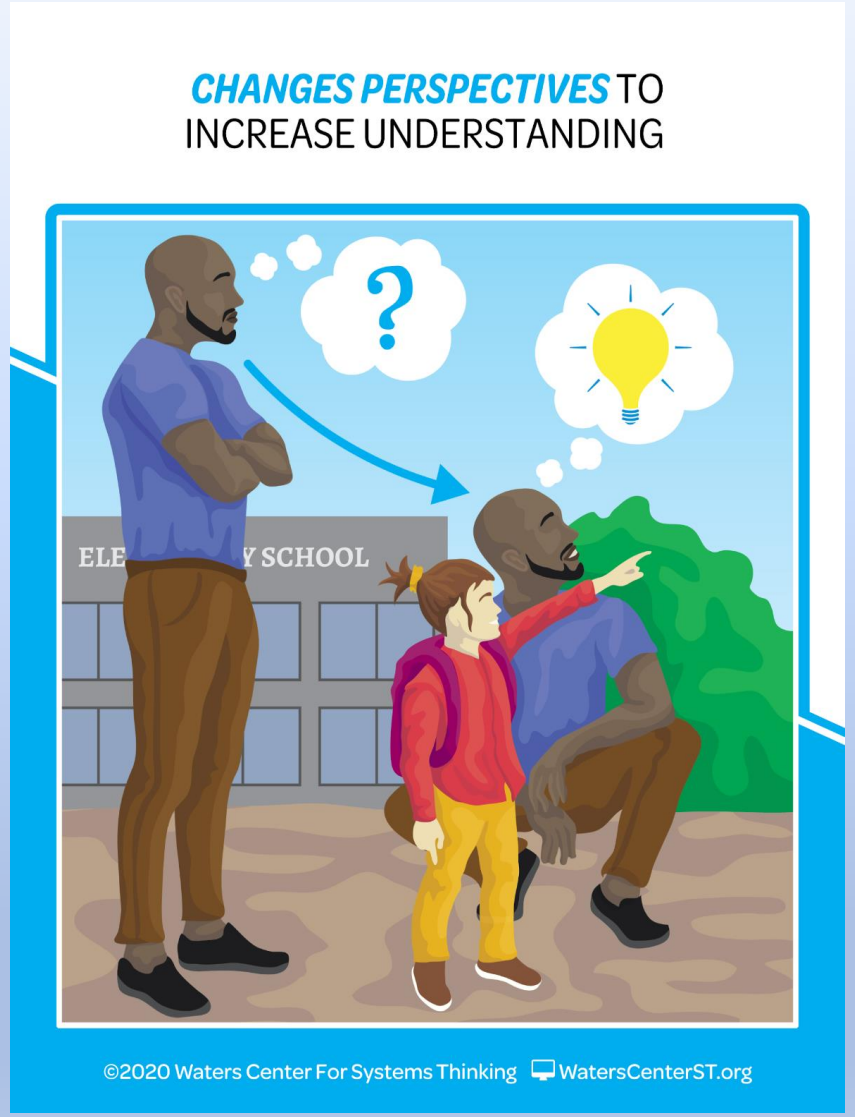

I develop beliefs based on the meaning I add.

I add my own meaning. (cultural & personal)

I notice certain information & experiences.

Information & experiences around me


Take Action
I take action based on my mental models.
I develop beliefs based on the meaning I add.
I add my own meaning. (cultural & personal)
I notice certain information & experiences.
Information & experiences around me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?
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Better Together
Back Stronger

SEEKS TO UNDERSTAND
***THE BIG PICTURE***

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USES UNDERSTANDING OF SYSTEM
STRUCTURE TO IDENTIFY
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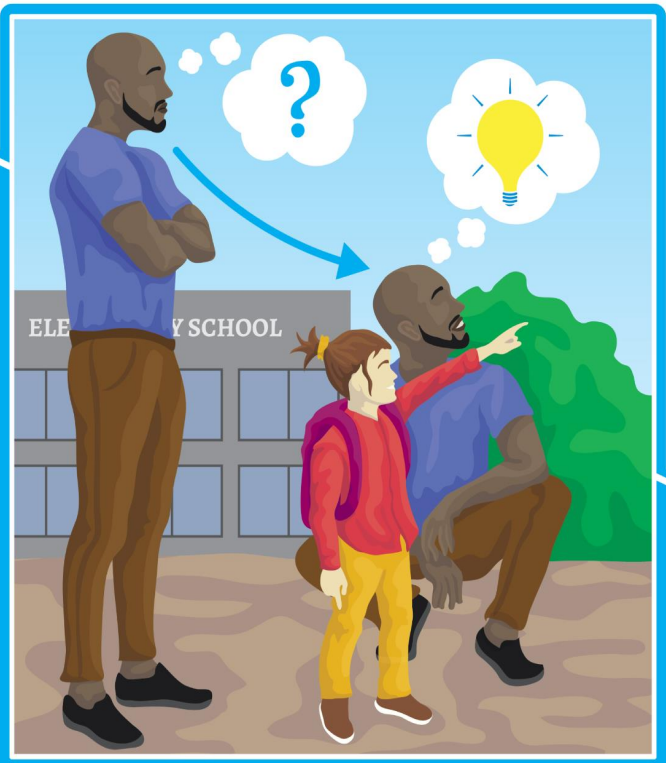


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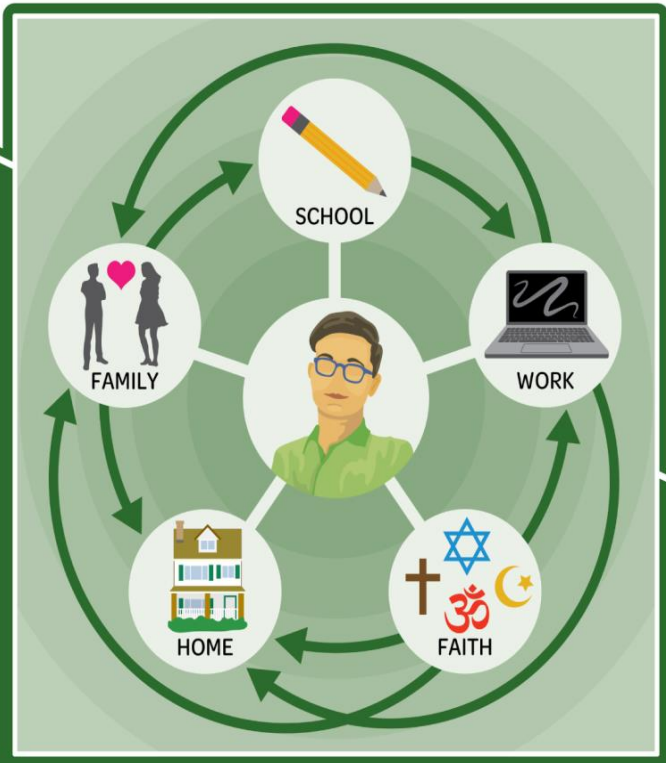


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# *What Habits can you practice this year?*

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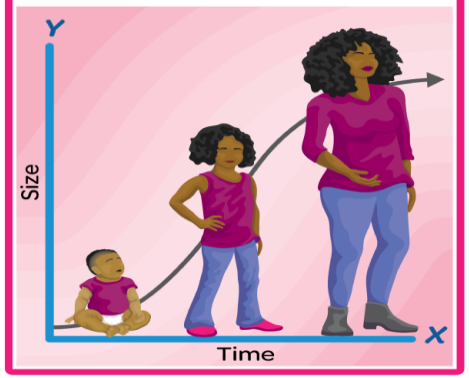


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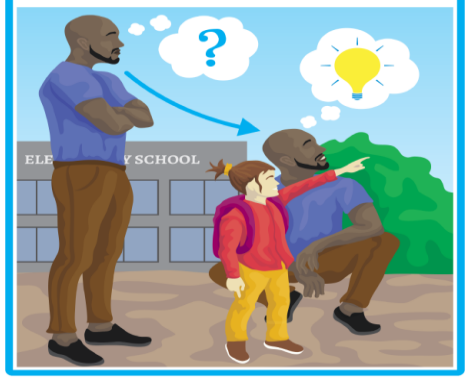


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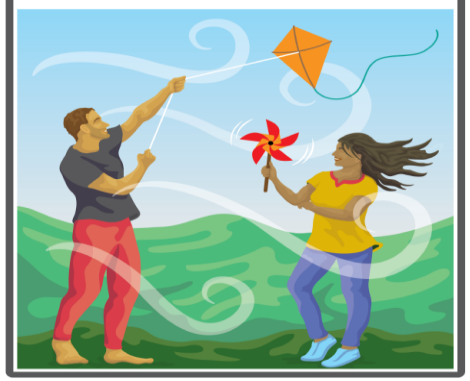

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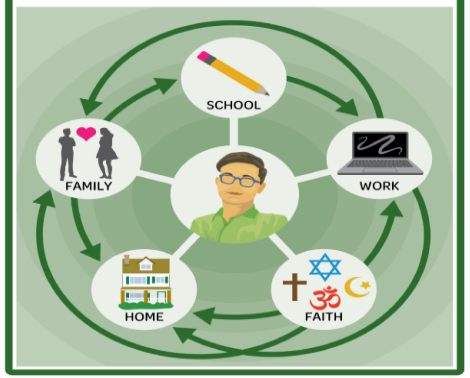


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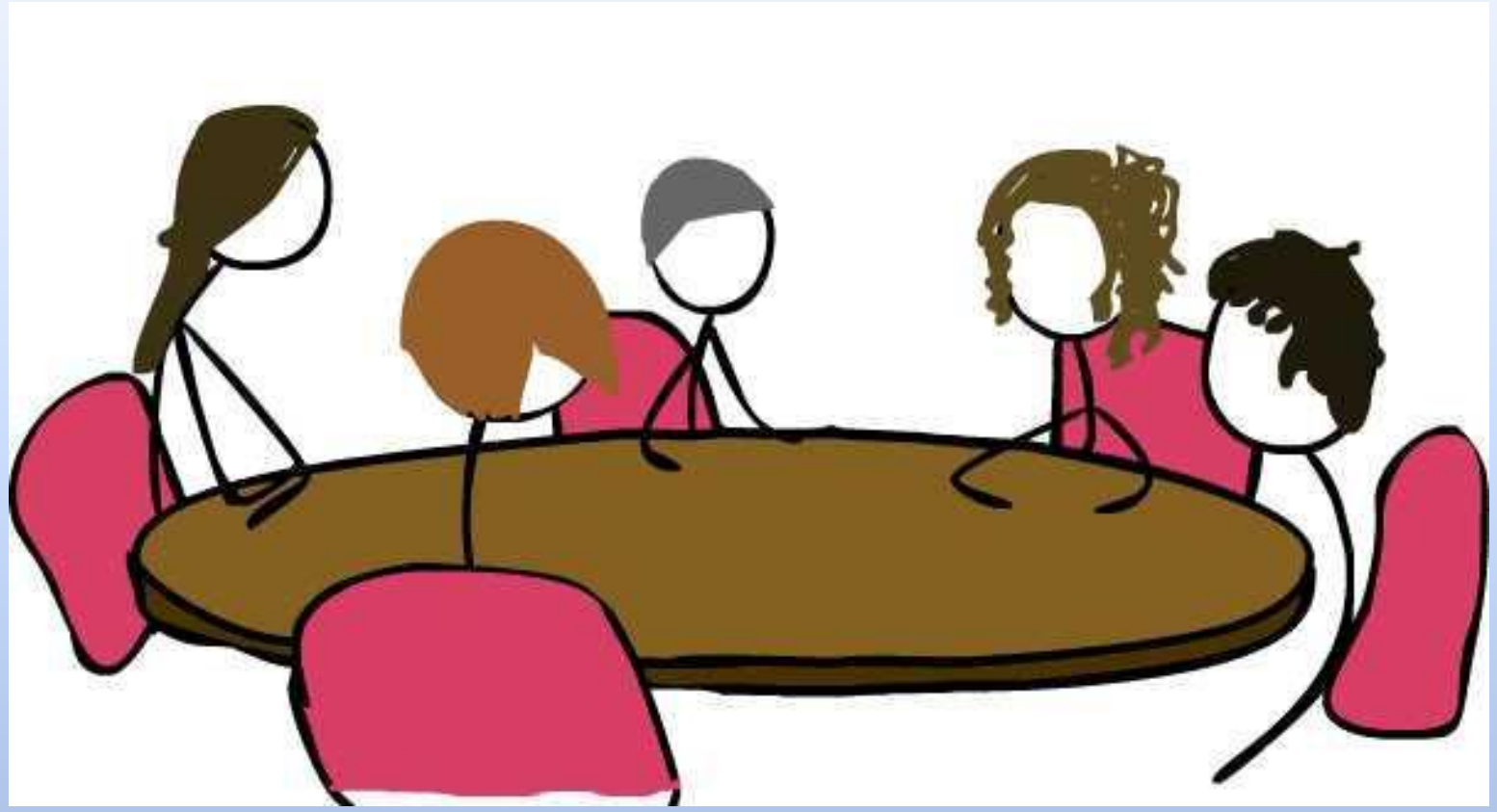

# Table Talk

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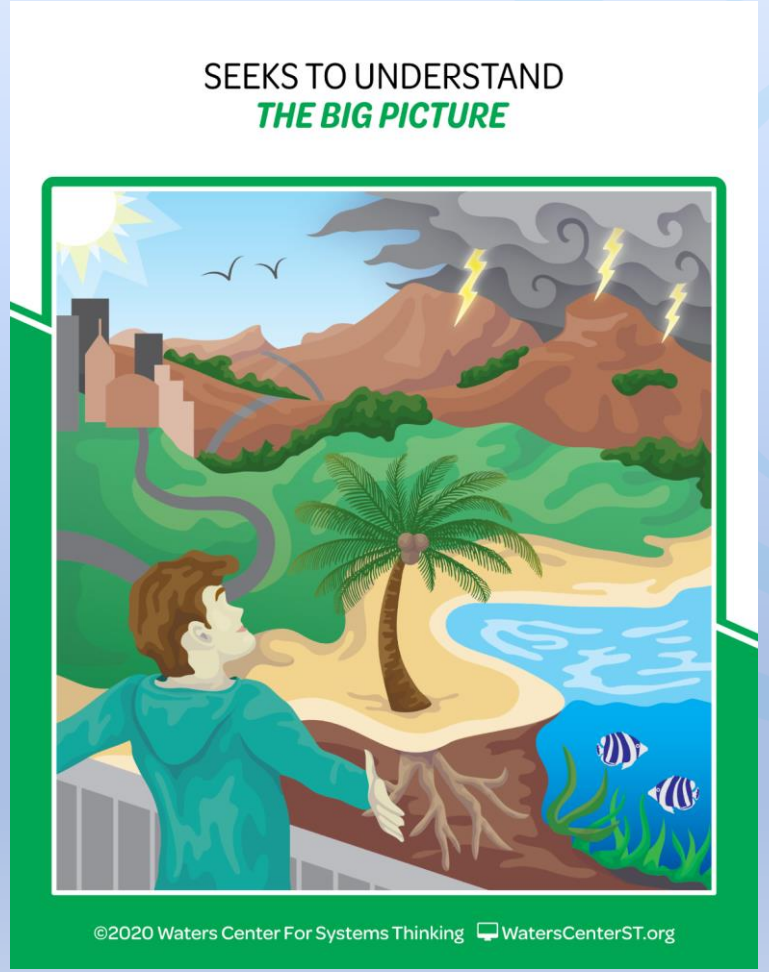
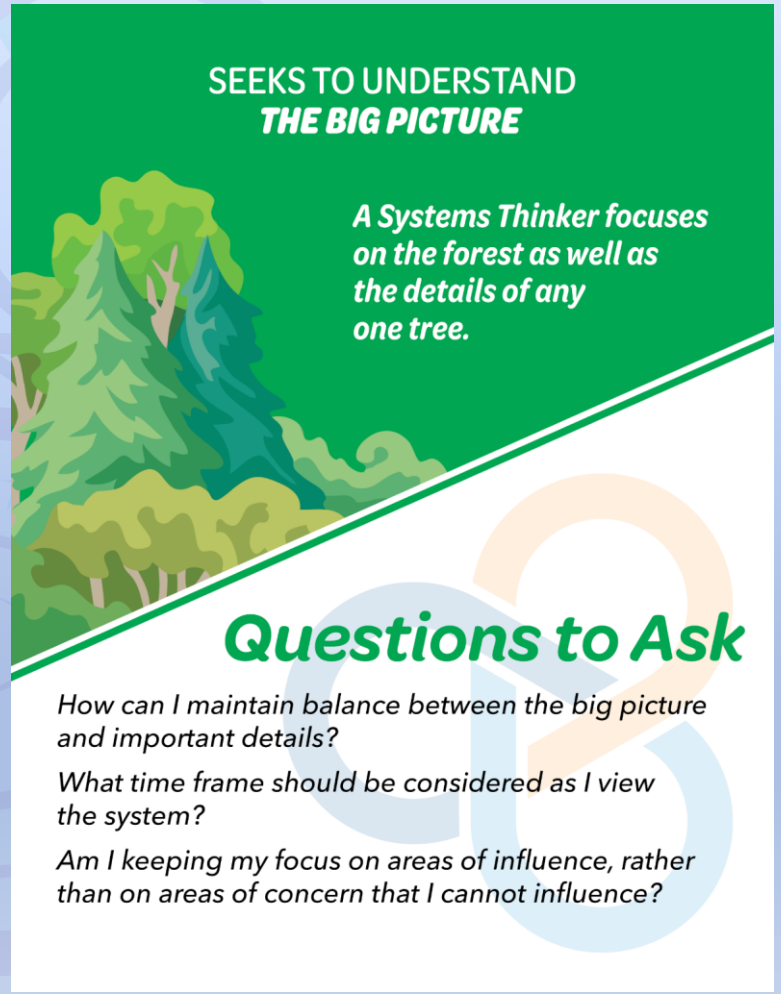
# BIG PICTURE



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# POINTS OF LEVERAGE

USES UNDERSTANDING OF SYSTEM STRUCTURE TO IDENTIFY POSSIBLE ***LEVERAGE ACTIONS***

USES UNDERSTANDING OF SYSTEM STRUCTURE TO IDENTIFY POSSIBLE ***LEVERAGE ACTIONS***

***A Systems Thinker uses system understanding to determine what small actions will most likely produce desirable results.***

## Questions to Ask

*Where might a small change have a long-lasting, desired effect?*

*How can we use what we know about the system to identify possible leverage actions?*

*Are there other small changes that we have not yet considered that could bring us desirable results?*

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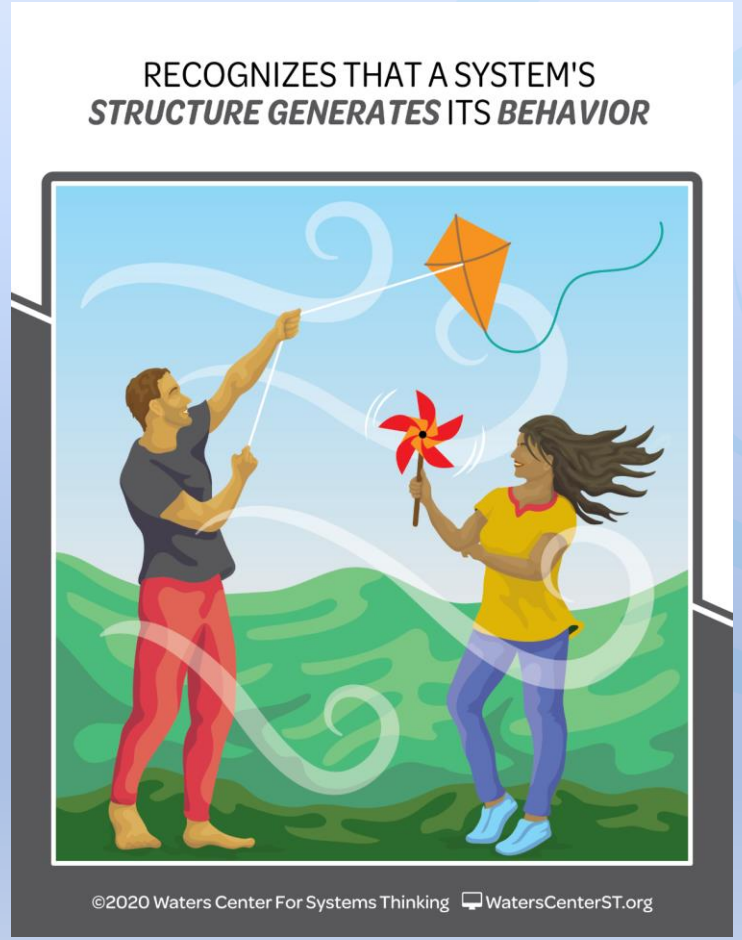
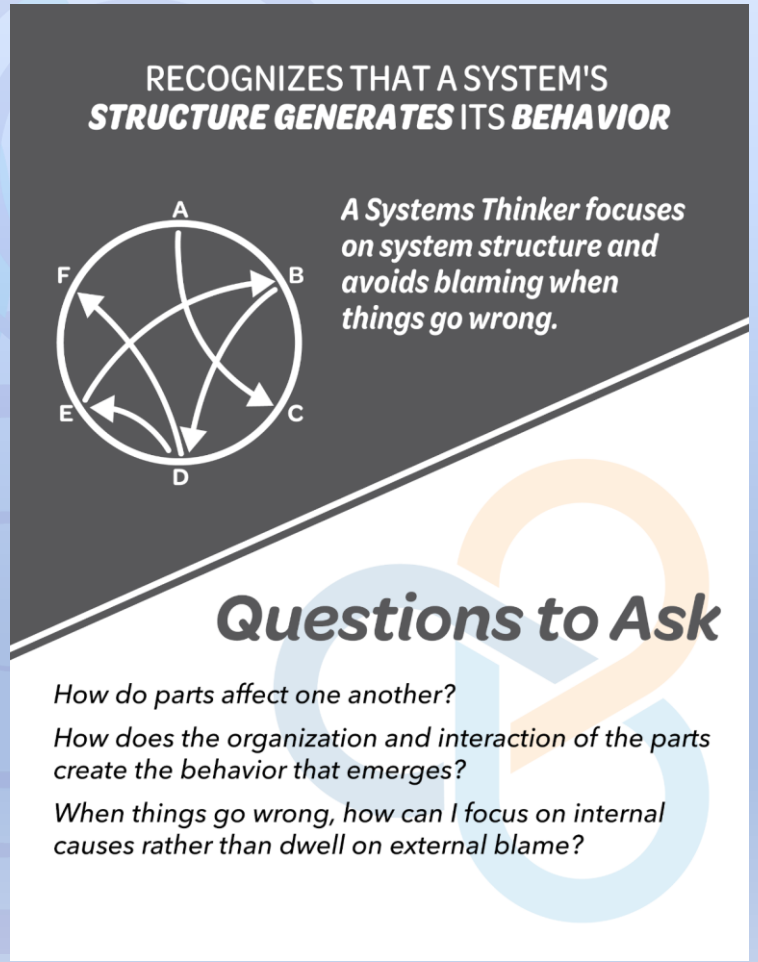
# SYSTEM'S STRUCTURE



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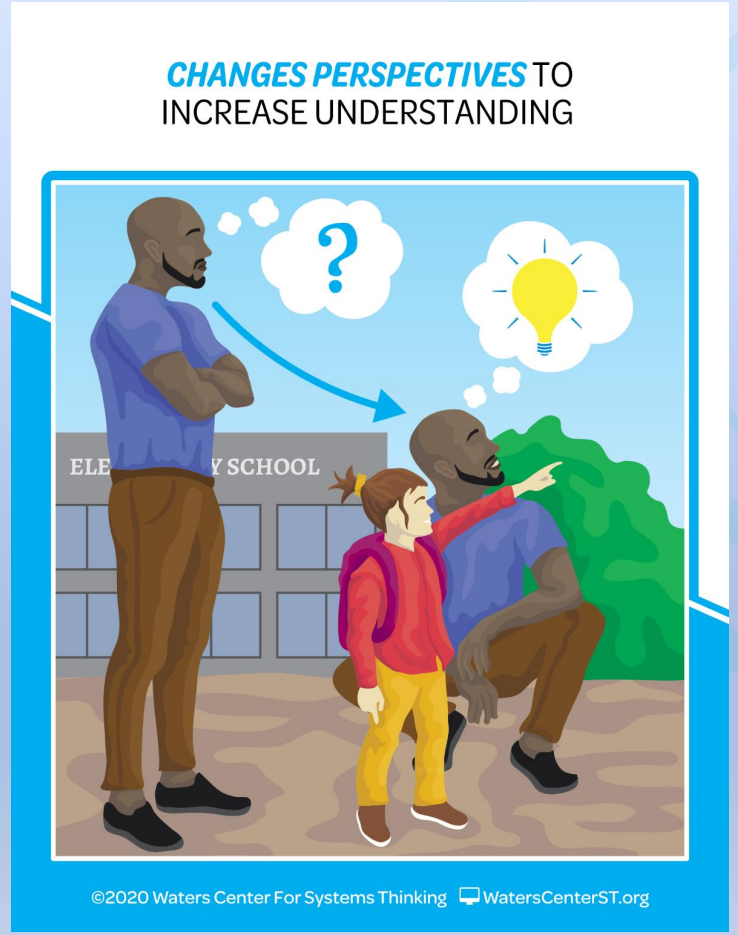
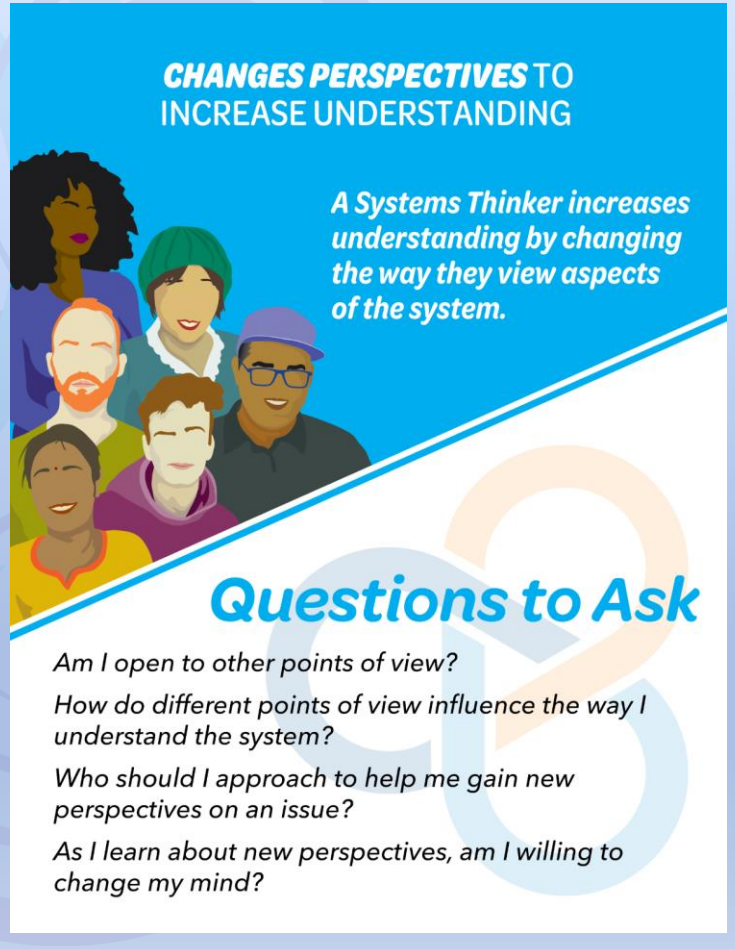
# PERSPECTIVES



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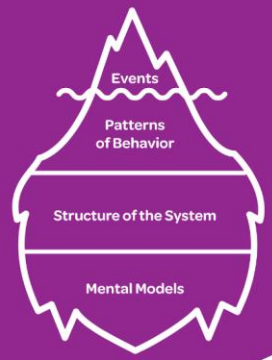
# MENTAL MODELS

CONSIDERS HOW ***MENTAL MODELS*** AFFECT CURRENT REALITY AND THE FUTURE




***A Systems Thinker is aware of how beliefs and attitudes influence the way a system behaves.***

## Questions to Ask

*How are the current mental models (i.e. attitudes, beliefs) advancing or hindering our efforts to achieve desired results?*

*How am I helping others see the influence that mental models have on our decision-making?*

*How could my own mental models be barriers to what I am trying to achieve?*

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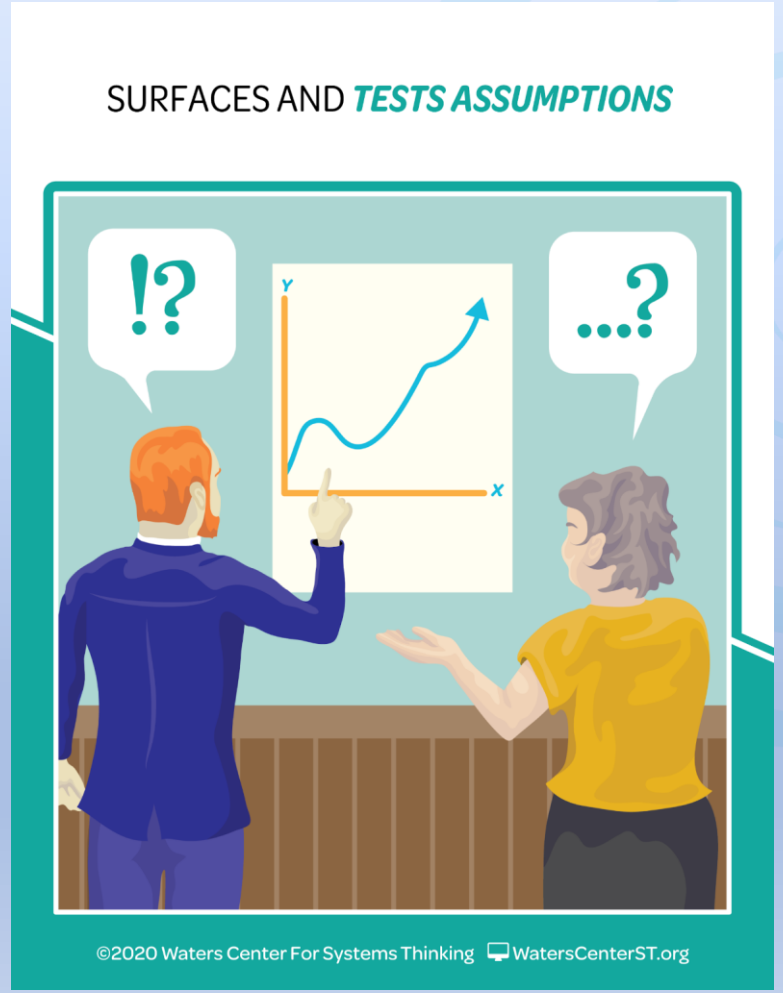
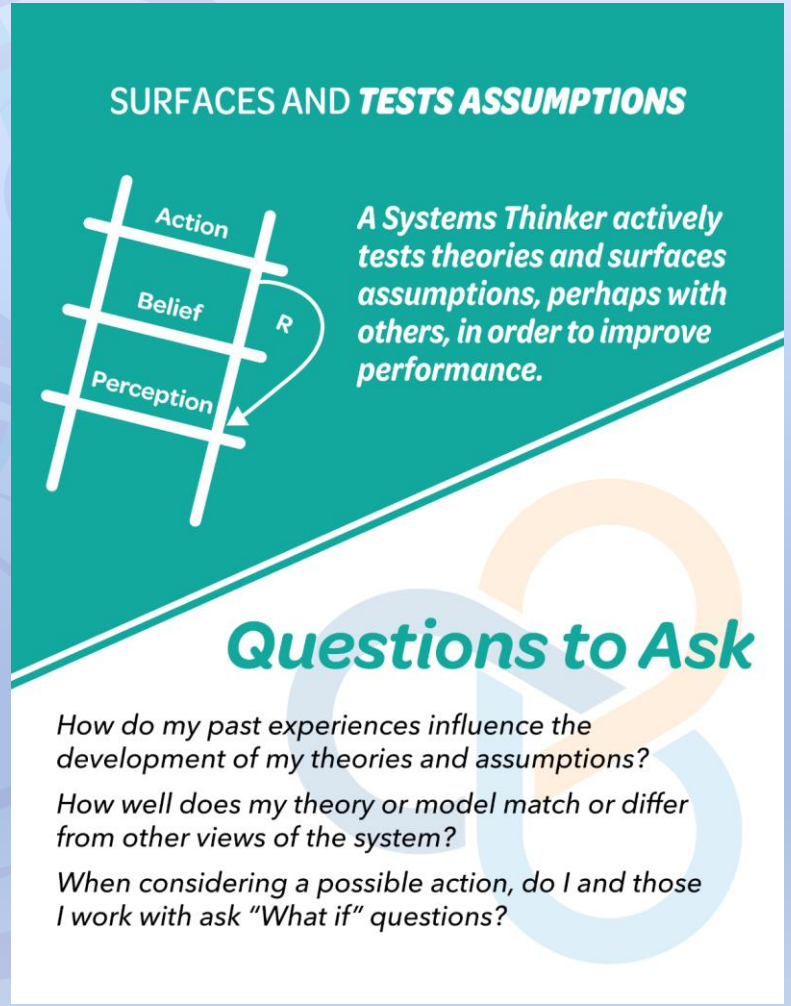
# SURFACES AND TESTS ASSUMPTIONS



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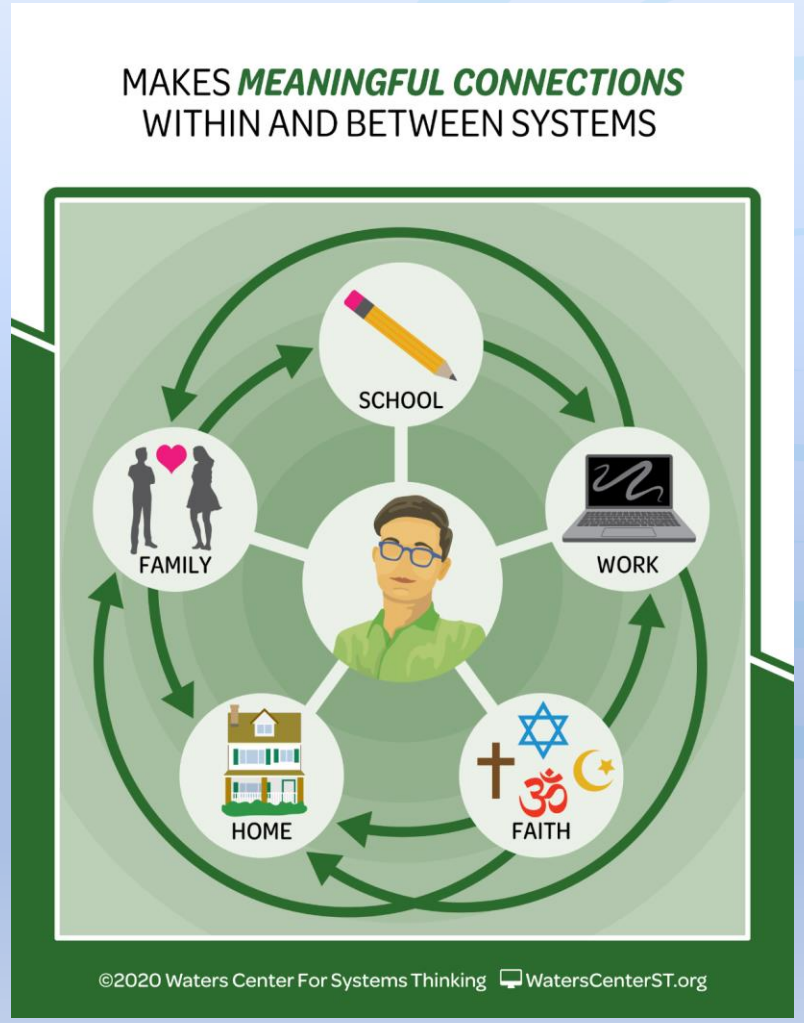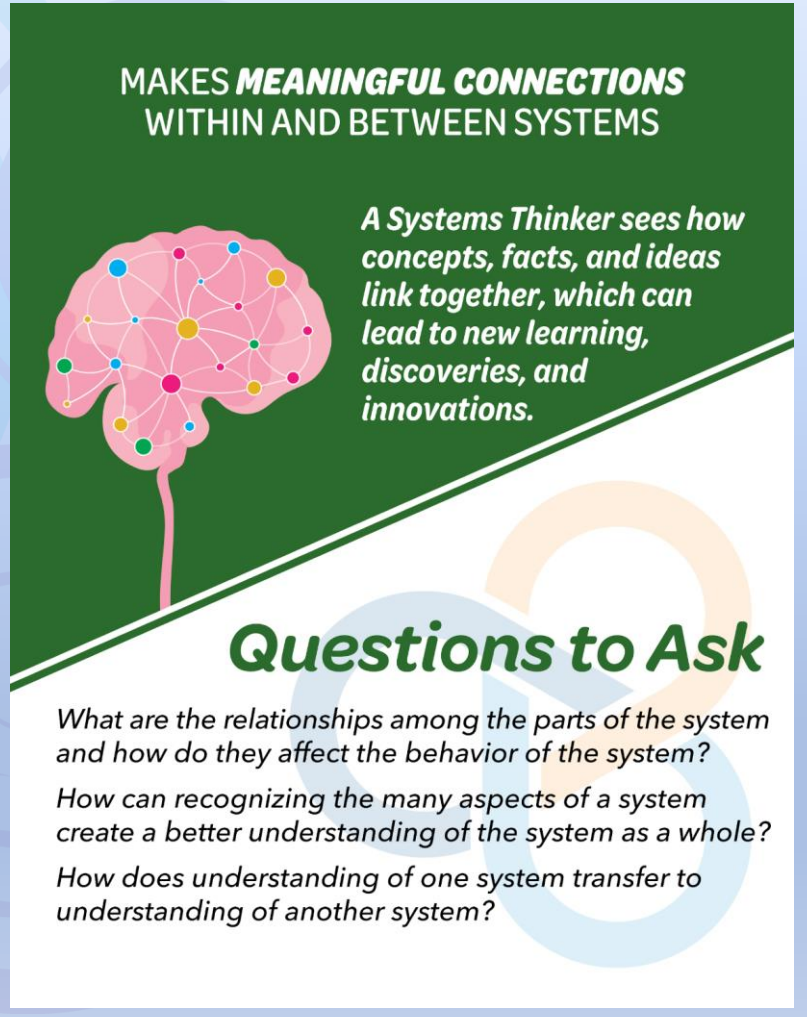
# MAKING MEANINGFUL CONNECTIONS