Using Concept
Maps to Help
You Understand
Your Research

What is a concept map? Why are they useful?

We want to hear what you think first!

Have you ever used a concept map before?

Tell me what you've used them for or what you think they could be useful for!

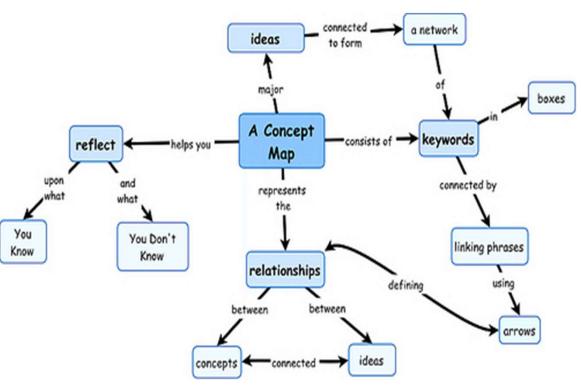


Image from: https://www.morgan.edu/Images/ADMINISTRATION/DIVISION /IT/conceptMap.jpg

What is a concept map? Why are they useful?

Graphical representations of knowledge surrounding a specific topic [1]

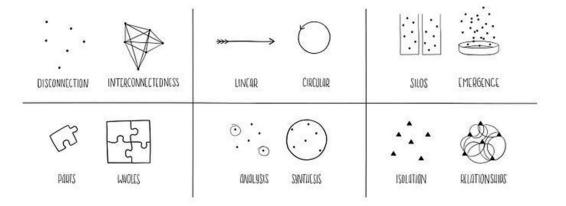
Learning is facilitated through relationships between new and previous knowledge [2]

Used for studying, assessment, etc. [3]

Systems thinking is a key engineering skill



TOOLS OF A SYSTEM THINKER



Concept maps are a way to help you explore and understand a system.



Why might this be helpful in my REU?

Coming into your project, you are going to be taking in a **LOT** of information.

You are learning about new:

- **Experimental Methods**
- Scientific & Engineering Topics
- Professional Skills
- And much more!



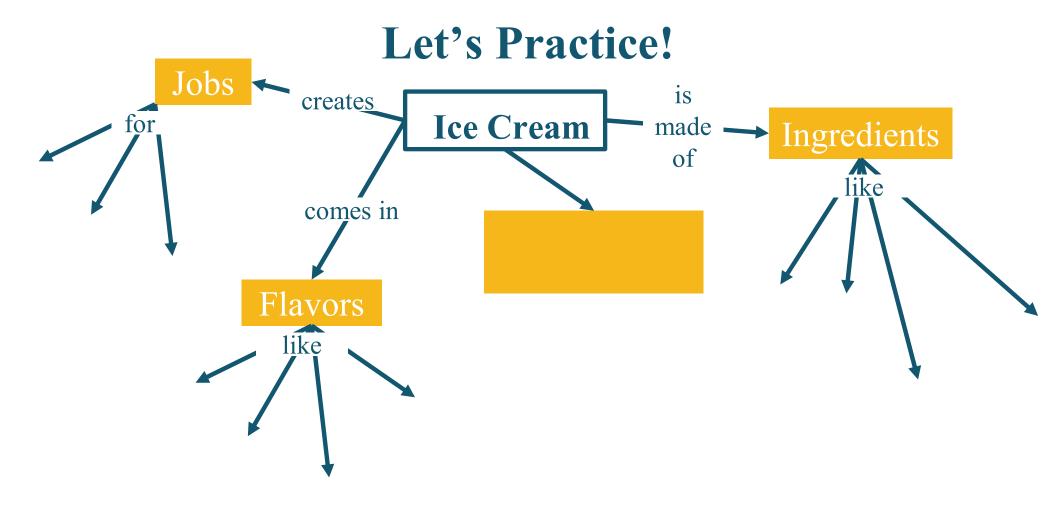


much time, if not more, valuing the premise of connecting ideas and not just protecting them... Chance favors the connected mind.

Concept maps are a great way to organize what you are learning, check your understanding, and explore how everything is connected. In other words, building your entrepreneurial mindset!



aling a mountain — the process of creating value



Build your Own Concept Map



Please construct a **concept map** starting with anything related to your assigned **research area**. Expand on your ideas as much as possible.

Check out these connecting words to help you build your maps!

Conflicts with alternative theories like...

Requires assumptions like...

Has ethical considerations like...

Accounts for biological variability by...

Requires skills in...

Conducted with...

Measured by...

Possesses...

Serves...

Is threatened by...

Is developed or discovered by...

Replaces, advances, refutes...

Uses model systems like...

Can be modeled as...

Is controlled for with...

Applies to human health by...

Is visually represented by...

Is reported as...

Collaborates with...

Has implications for...

Is inspired by...

Is derived from...

Can by denoted by...

Can be statistically supported by...

Could also be used in...

Requires techniques like...

Why might this be helpful in my Research?

Now that you've created your own map, I want to encourage you to come back to this as you progress through your project!

Use it to explore:

- -Areas of the project you might need some more help with understanding.
- -To facilitate discussions with your project mentor throughout your program.
- -Any other way you find it helpful!

And don't forget...



As you navigate your program, looking for the connections can help you produce unexpected and impactful insights!

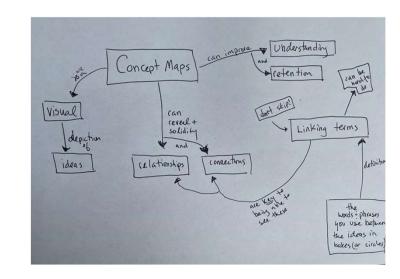
Want some feedback on your map?

If you are interested, KEEN has developed a concept map analyzer with help from ChatGPT.

It can give you feedback that can help you expand the ideas you capture in your maps or give you prompts to talk through with your mentors.

This is a totally optional activity, but if you want to check it out follow the link below for instructions!

https://tinyurl.com/ConceptMapAnalyzer



<u>Certificate Program – Challenges:</u>

Complete
Red
Challenge
this Week





















Certificate of Entrepreneurial
Mindset in
Undergraduate Research (CEMUR)

10 Challenges Program

Pre-Survey Session

- Complete these pre-surveys you received by email:
 - Survey from Dr. Wayne Pratt
 - eREU Pre-survey: https://rowan.co1.qualtrics.com/jfe/form/SV_51hN3m5MF1QFybs

https://rowan.co1.qualtrics.com/jfe/form/SV_51hN3m5MF1QFybs

