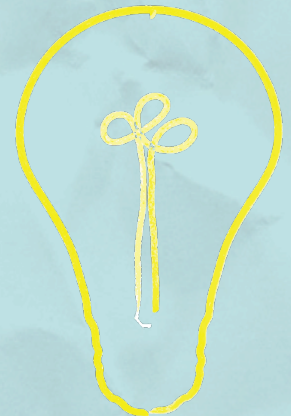


"The NAS, Change, and Never-ending Budget Cuts: An Opportunity to Get Creative?"



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Disclosure

- No financial or other disclosures
- We, of course, are not experts in the field of psychology or neuroscience!



Objectives

- Define creativity
- Discuss the science of creativity
- Explore strategies on how to foster and utilize creativity
- Practice innovative thinking

Have a Conversation WITHOUT Using the Letter “E”

This game will automatically flex your brain’s “muscles” and help make you mentally sharper.

- Turn to the person next to you.
- Carry on a regular conversation without using any word that has the letter E in it.
- You must try to make the conversation as normal as possible without any long pauses in between sentences.

Our Challenges

- Financial
 - Budget Constraints
 - Infrastructure
- Change



Financial

- Budget Constraints
 - More with less
 - Food
 - Morale increasing activities



Financial

- Infrastructure
 - People
 - Responsibilities



Change

- People
- Job duties and responsibilities
- Program requirements



Why Creativity?

There is no doubt that creativity is the most important human resource of all. Without creativity, there would be no progress, and we would be forever repeating the same patterns.”

— Edward de Bono

What is Creativity?

Creativity is the ability to generate new ideas and new connections between ideas, and ways to solve problems in any field or realm of our lives.

- unknown

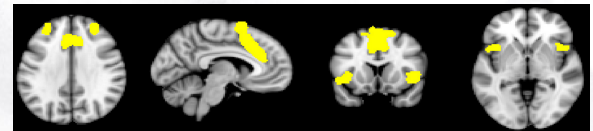
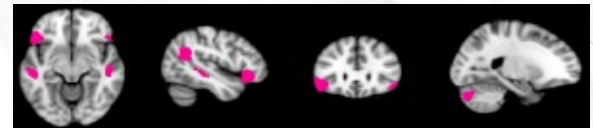
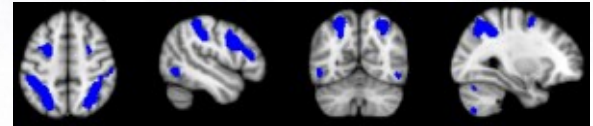
The Science of Creativity

- Creativity does not involve a single brain region or single side of the brain.
- Creativity consists of many interacting cognitive processes and emotions.

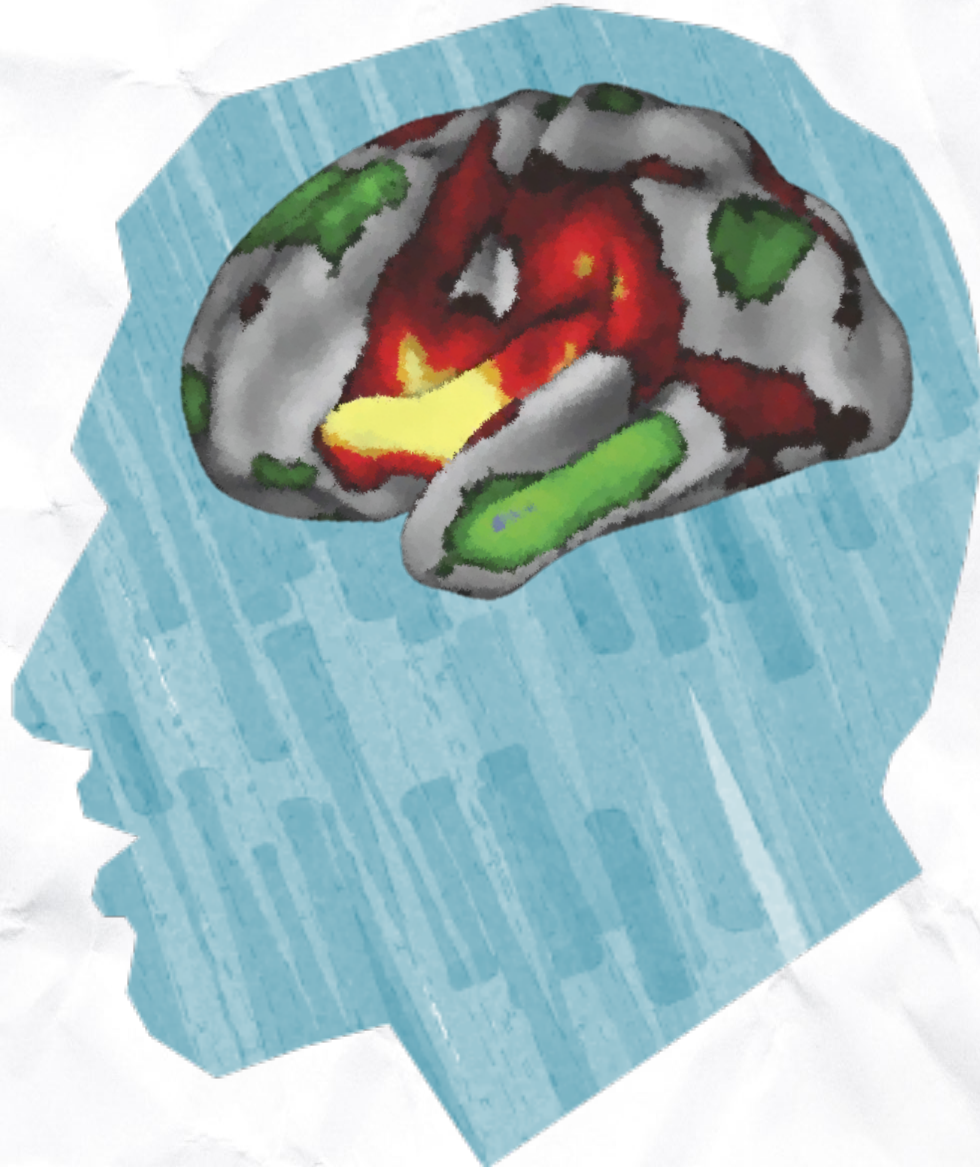


The Science of Creativity

- Three brain networks interact in the creative process
 - Visuospatial Network
 - Communication and focus
 - Default Network
 - Social cognition
 - Imagination
 - Salience Network
 - Attention mechanism

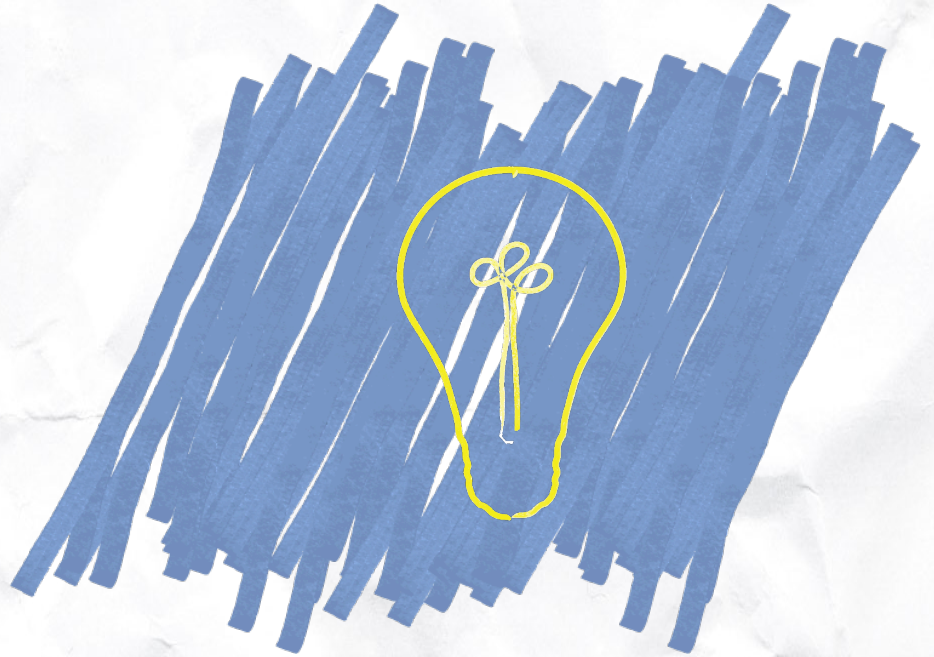


The Science of Creativity



Creative Techniques

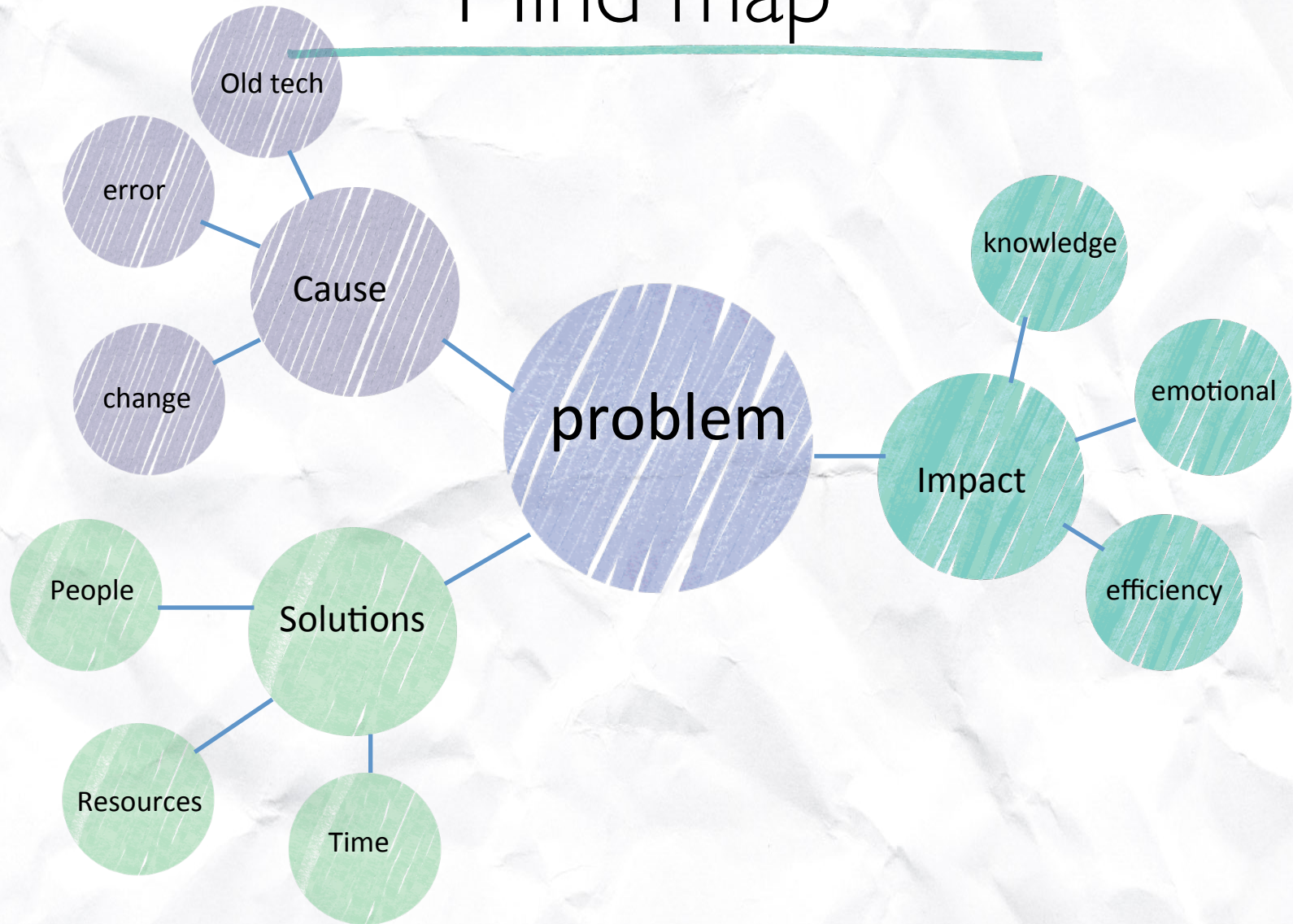
- Brainstorming
- Challenge Ideas
- Working Backwards
- Energy Management
- Team Development
- Flexibility



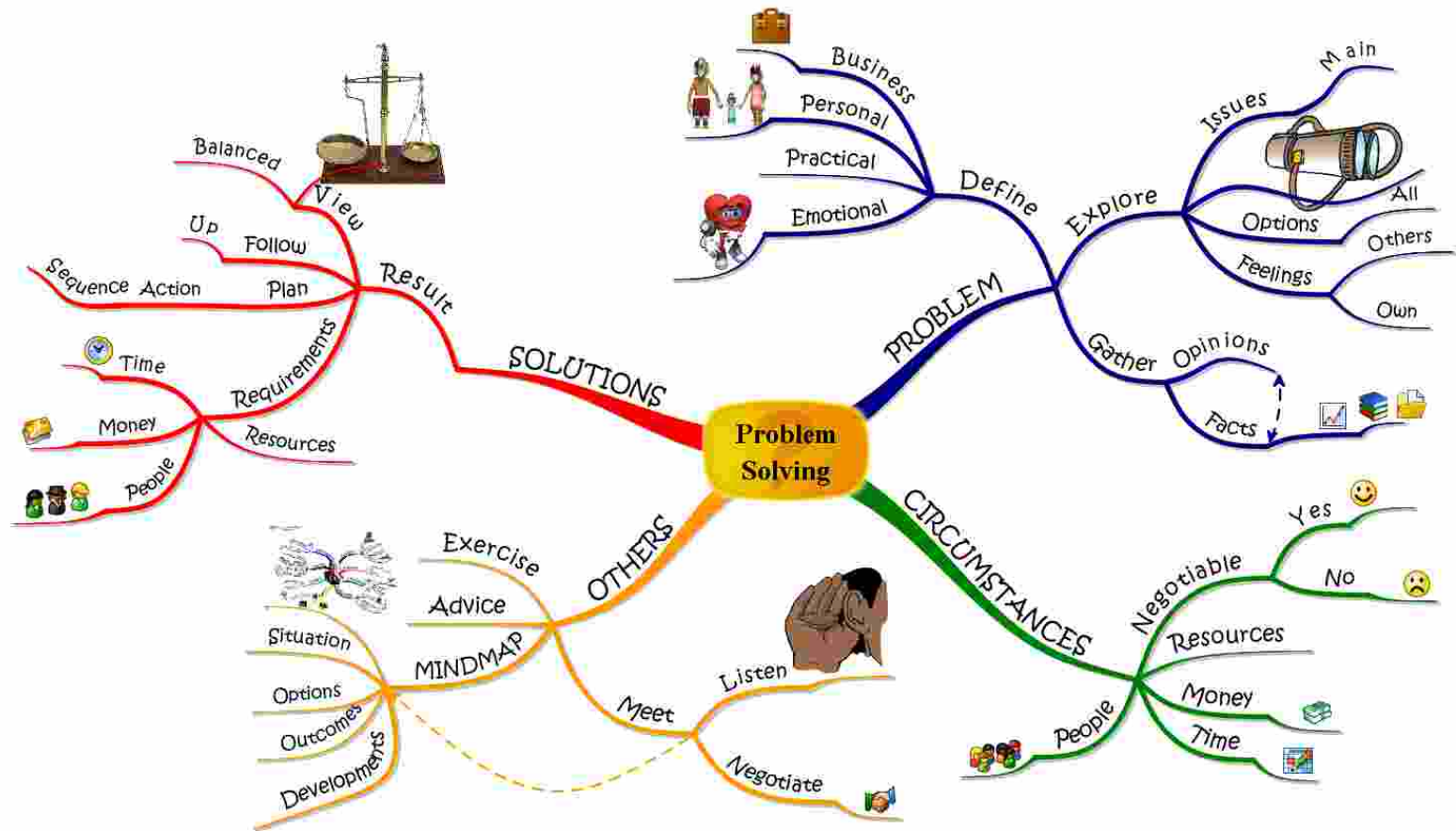
Brainstorming

- Group Brainstorming
 - Potential barrier: the talkers can run the show
- Individual Brainstorming
- Strategies for both:
 - Use a different location than work
 - peaceful but ambient noise, dim lighting
 - Ex. Car, shower
 - Mind mapping
 - Include barriers and thoughts on how to remove each

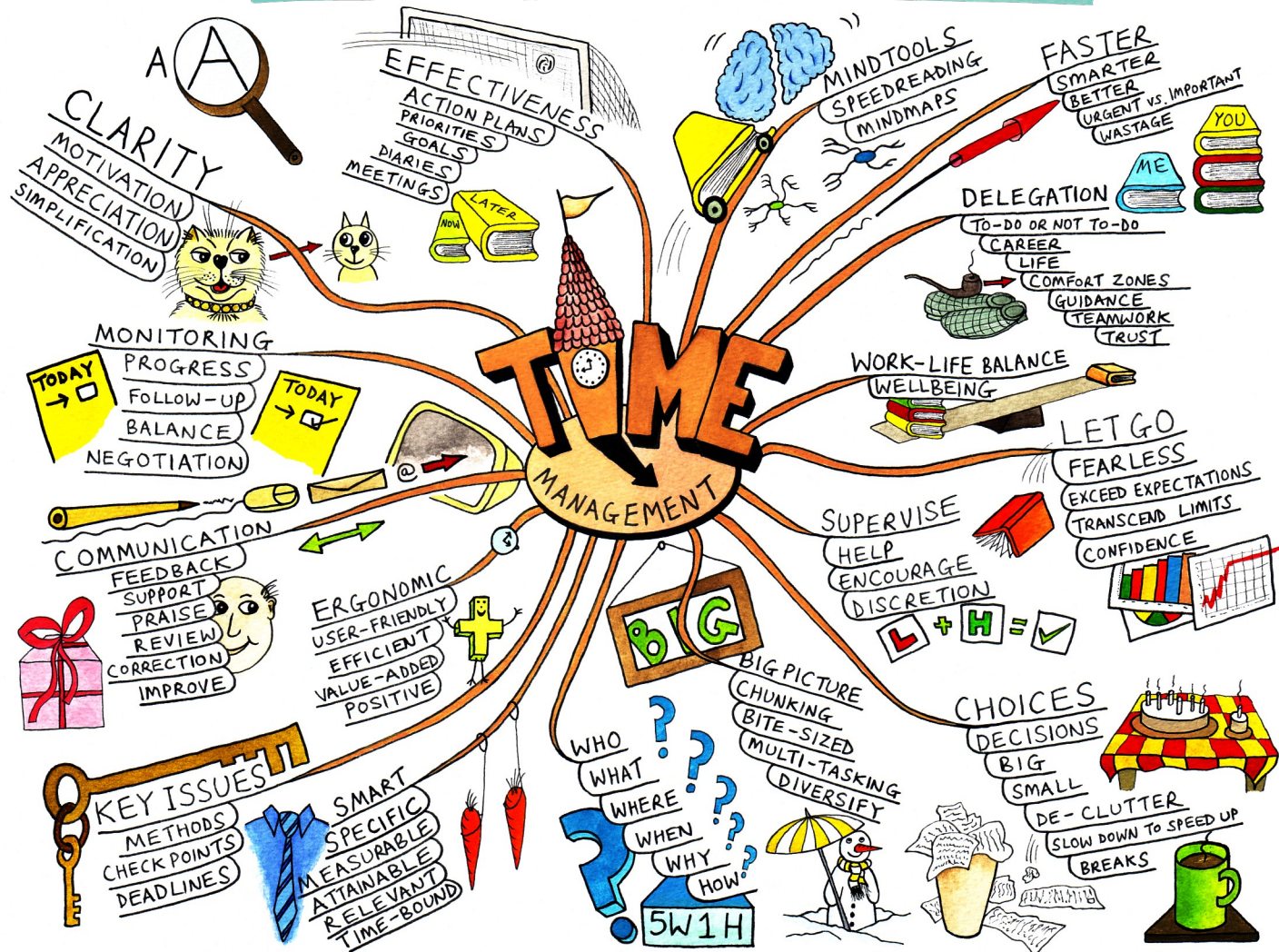
Mind map



Mind map



Mind map



Challenge Ideas

- Ask "Why?" in a non-threatening way
 - Why does something exist?
 - Why it is done the way it is?
- The result is a very clear understanding of "Why?" which naturally leads to fresh new ideas.

Working Backwards

- Instead of asking, "How do I solve or prevent this problem?" ask, "How could I possibly cause the problem?"
- Instead of asking "How do I achieve these results?" ask, "How could I possibly achieve the opposite effect?"
 - Ex. Instead of “How to increase morale?,” ask “What decreases morale?”

Energy Management

- How do you handle the every day demands from family, work, and other areas of life?
- How many people stay late when work is busy?
- Eat on the run or eat junk food?
- Pass on going to the gym?
- Stay up later?
- How many people have problems setting boundaries and/or saying no?

Energy Management

- There are four main areas that human beings get energy from:
 - The body
 - Emotions
 - Mind
 - Spirit



No worries there are ways to recharge your energy.
Small changes or rituals can make a big difference.

Energy Management

- **Body:** Getting enough sleep, set bedtime and sleep longer; exercise.
- **Emotions:** Deep abdominal breathing-turns off the flight or fight response. Making time to express appreciation. Changing your story-use the most hopeful and empowering story.
- **Mind:** Stop multi-tasking. Set limits, only answer emails and voicemails at certain times
- **Spirit:** Do what you do best and enjoy most, consciously allocate time and energy to do what is most important to you, live your core values on daily behaviors.

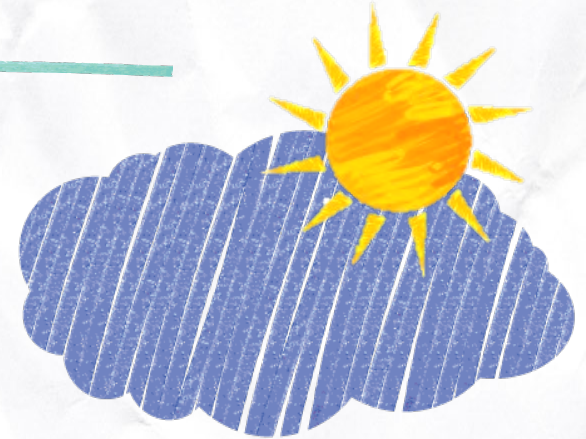
Team Development

- Sometimes you get to pick your team other times you inherit it.
- Multi-disciplinary teams help. Everyone has something to bring to the table. Use people's strengths.
- Bring a positive attitude, do not expect others to change.
- Re-think roles and responsibilities



Flexibility

- Positive attitude.
- Be ready to shift your schedule.
- Do not be afraid.
 - To fail
 - Each day and each year are a new start.
 - To re-invent and destroy tradition



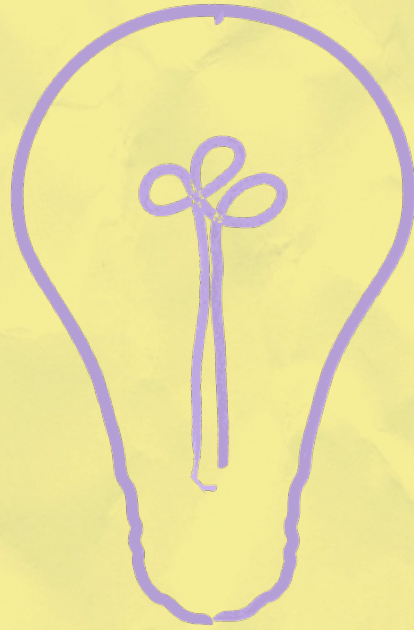
Innovation Exercise

Before we start, we want you to remember the most important thing you must do...



Innovation Exercise

1. On your table, you will find a scenario possibly found in our workplace.
2. As a group, discuss how you would creatively search for possible solutions.
3. Pick someone to report for your table.



Thank You!



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