Middle School Innovation Academy

Welcome!

For the duration of the event:

- Please mute your microphone
- Video off for privacy
- Ask questions in chat box - Q & A at end
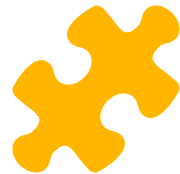
Welcome!

Rachel Verschaeve

Supervisor of Innovation & Design Thinking

MSIA Coordinator

verschaeve.rachel@sccresa.org | 810.455.4004

Meet the Teachers

Minna Turrell
TEACHER

Supervisor of Secondary Science and Math Instruction

Kristin Day
TEACHER

Supervisor of Education Technology

Jim Licht
TEACHER

Supervisor of Secondary Math Instruction

Rachel Verschaeve
TEACHER

Supervisor of Innovation & Design Thinking
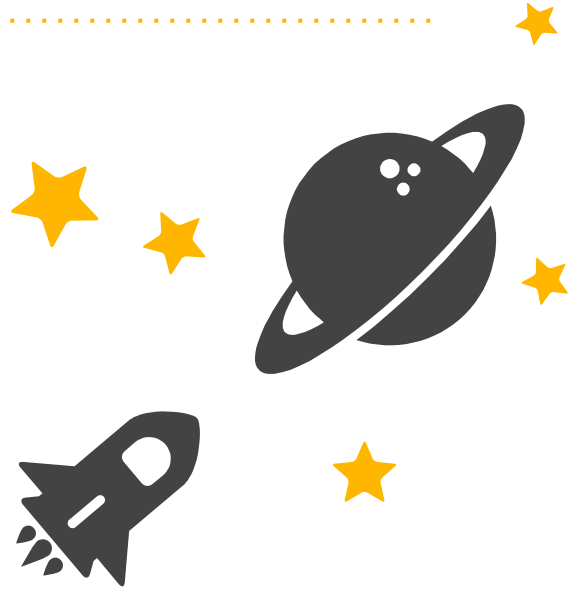
MSIA Orientation

- What is MSIA?
- Program logistics
- Methods of communication
- Registration
- Q&A

1

What is MSIA?

Modified for 2022-23 School Year

Design Thinking

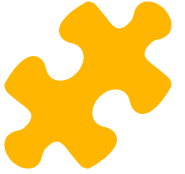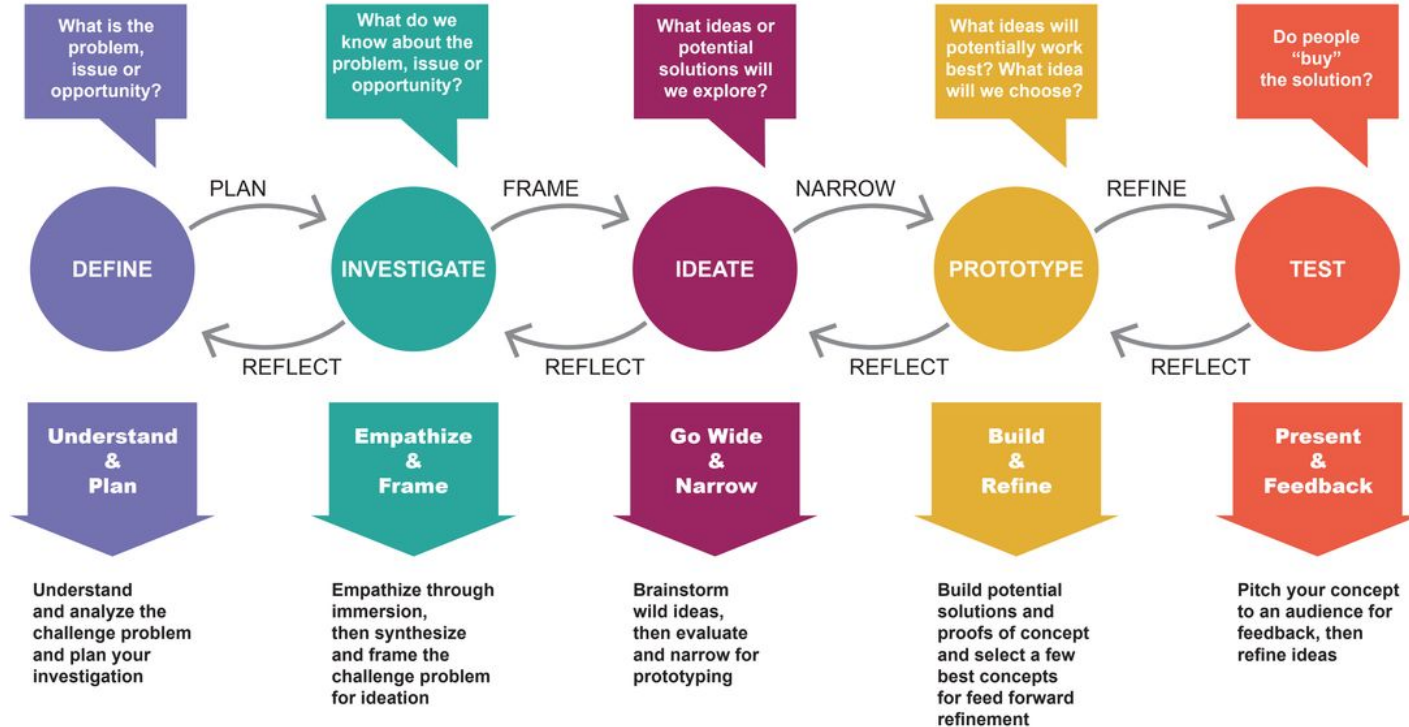Developing empathy, collaboration, creativity, and critical thinking

"

*Design Thinking is a **mindset** and approach to learning, collaboration, and **problem solving**. In practice, the design process is a **structured framework** for identifying challenges, gathering information, generating potential solutions, refining ideas, and testing solutions.*

-Teaching and Learning Lab,
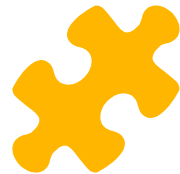*Harvard Graduate School of Education*

DESIGN & INNOVATION PROCESS

DEFINE	INVESTIGATE	IDEATE	PROTOTYPE	TEST
What is the problem, issue or opportunity?	What do we know about the problem, issue or opportunity?	What ideas or potential solutions will we explore?	What ideas will potentially work best? What idea will we choose?	Do people "buy" the solution?

PLAN → FRAME → NARROW → REFINE →

REFLECT ← REFLECT ← REFLECT ← REFLECT ←

Understand & Plan	Empathize & Frame	Go Wide & Narrow	Build & Refine	Present & Feedback
Understand and analyze the challenge problem and plan your investigation	Empathize through immersion, then synthesize and frame the challenge problem for ideation	Brainstorm wild ideas, then evaluate and narrow for prototyping	Build potential solutions and proofs of concept and select a few best concepts for feed forward refinement	Pitch your concept to an audience for feedback, then refine ideas

Why?

" "

Knowledge is a habit. Sometimes there's a limit to having new ideas. That's the problem with the old schooling. Because they were teaching answers.

I believe that questions today are probably more important today than the answers.

–Erno Rubik

Students as Designers

THE OLD WAY

Design a desk that will hold a laptop, books, and a water bottle

Design a backpack that will hold textbooks and Chromebook

Design a bridge that will support 40 tons of bricks

THE NEW WAY

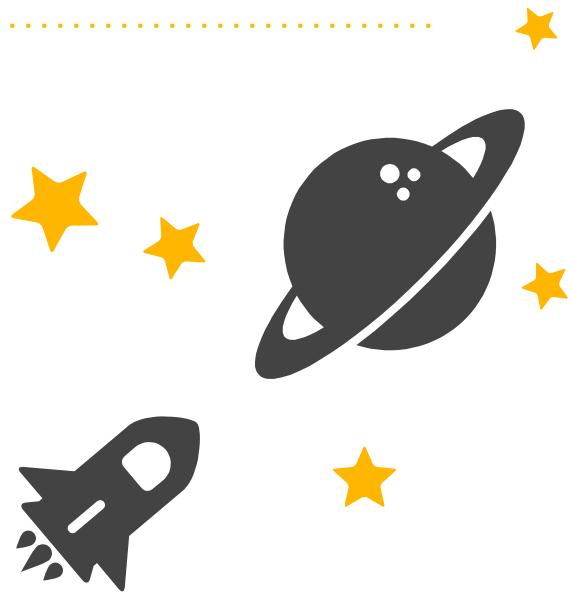How might we improve Johnny's homework environment?

How might Johnny transport learning materials to and from school each day in a way that is safe?

How might Acme transport 40 tons of bricks across the river in a way that is safe and efficient?

Ask questions, keep minds open, and challenge assumptions

Innovation
Practices

How students develop empathy,
collaboration, creativity, and critical thinking
during the Design Thinking Process

- Think about the process and experience
- Let one experience influence the next
- Repeat

Reflect

- Play with lots and lots of ideas for a while
- Find ideas in constraint and tension
- Prototype with raw materials

Create

Accept Challenges

- Take risks
- Fail forward to learn
- Iterate: Prototype, test, feedback, repeat
- Bounce back

Do It Together

- Share responsibility and knowledge with your team
- Put your heads together
- Value diverse insights, experiences and people
- Listen before speaking

Be Empathetic

- Put yourself in others' shoes
- Seek to understand without judgment
- Ask "Why? Why? Why?"
- Listen without speaking

Be Open

- Know your biases, challenge your assumptions, and reject the status quo
- Listen, look, and observe with childlike curiosity
- Practice "Vuja De" to see things with new eyes
- Find patterns

Ask Questions

- Seek answers
- Ask more questions
- Repeat

7

MINDSETS 4 THE FUTURE

SKILLS4THEFUTURE

These 7 employability skills are crucial to a successful career

SKILL #1
Critical Thinking & Problem Solving

The ability to break down, analyze, and solve complex problems to drive improvement, decision making, and innovation in diverse contexts

SKILL #2
Collaboration & Leadership

The ability to accomplish goals with diverse teams in various environments, while leading and inspiring progress without direct oversight

SKILL #3
Agility & Adaptability

The ability to work flexibly in diverse environments and ambiguous contexts, while responding positively to change

SKILL #4
Initiative & Entrepreneurship

The passion and drive to continually learn and grow, demonstrating responsibility and management of progress in reaching goals

SKILL #5
Effective Oral & Written Communication

The ability to clearly express ideas in front of diverse audiences in a variety of contexts

SKILL #6
Accessing & Analyzing Information

The ability to obtain implicit and explicit information from various media, using the information ethically when forming and sharing new ideas

SKILL #7
Curiosity & Imagination

The ability to challenge oneself and ask questions with childlike wonder, enthusiastically developing new ideas and solutions through creative approaches

15

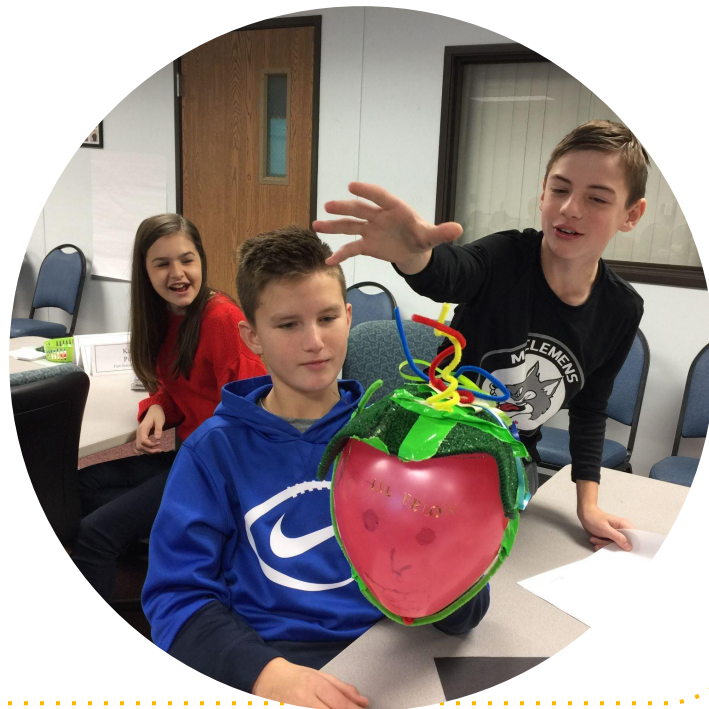# ---needs a way to----because---

Ask Questions

- Seek answers
- Ask more more questions
- Repeat

Be Open

- Challenge your own assumptions and reject the status quo
- Listen, look, and observe with childlike curiosity
- Practice Vuja De to see things with new eyes
- Find patterns

Empathize

- Put yourself in others' shoes
- Seek to understand others without judgement
- Ask *Why? Why? Why?*
- Listen without speaking

Circles of **Empathy**

With empathy being at the heart of design thinking and a much needed trait to be developed within our students and community, the Middle School Innovation Academy will progress through the circles, beginning with the innermost, then tackling problems increasingly more distant from the self.
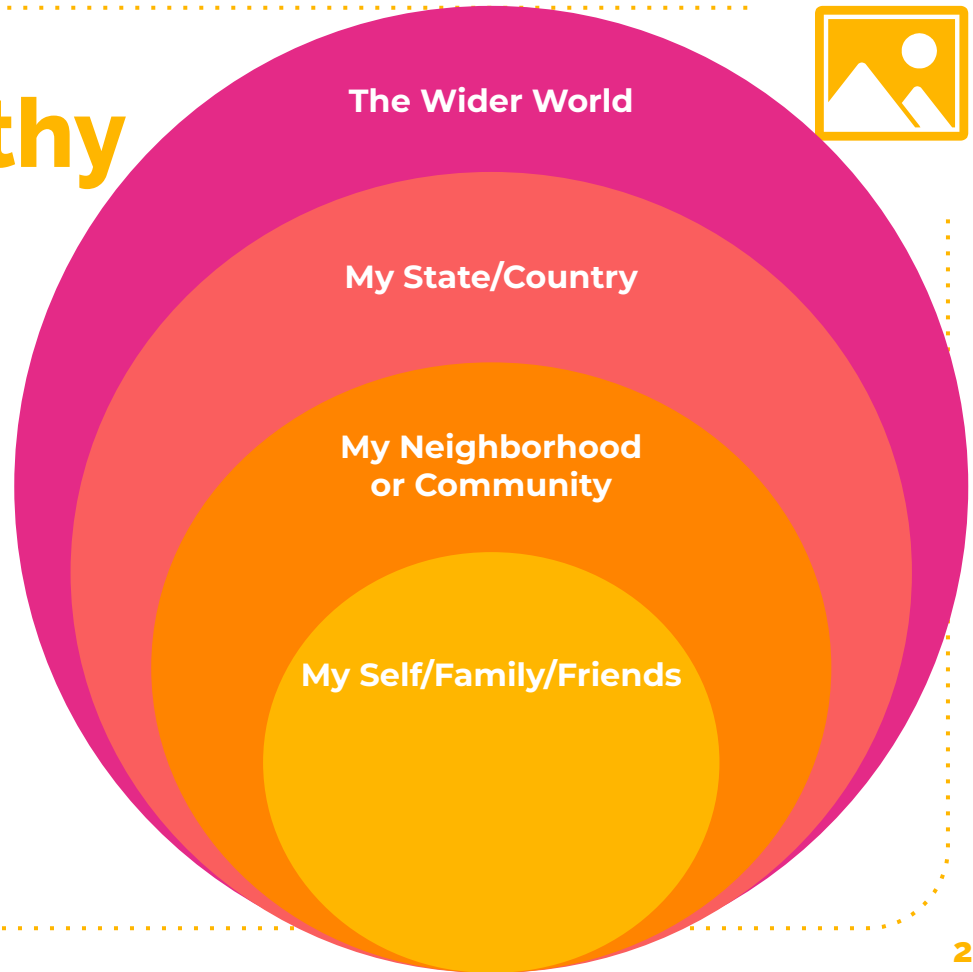
The Wider World

My State/Country

My Neighborhood or Community

My Self/Family/Friends

Do It **Together**

- Share responsibility and knowledge with your team
- Put your heads together
- Value diverse insights, experiences, and people
- Listen before speaking

Accept Challenges

- Take risks
- Fail forward to learn
- Iterate: prototype, test, feedback, repeat
- Bounce back

WE BROKE OUT
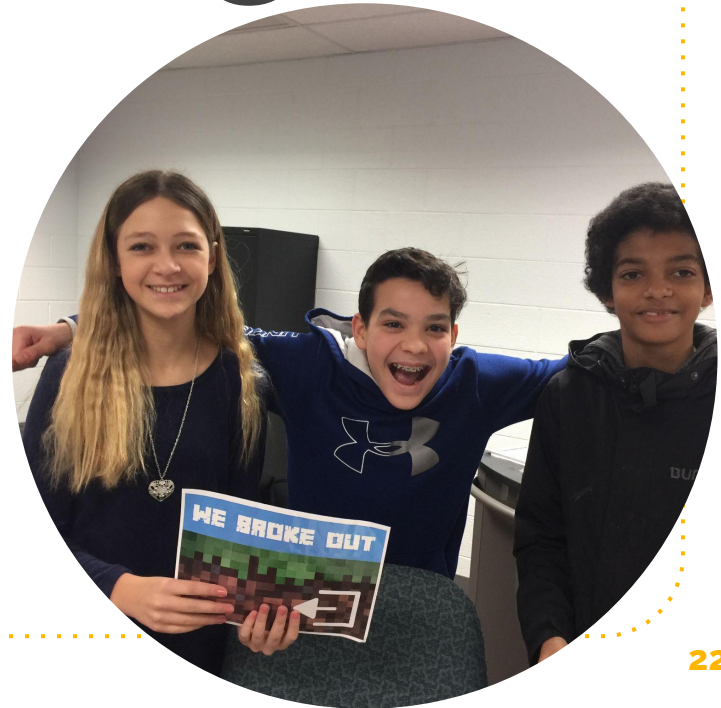
Create

- Play with lots and lots of ideas for a while
- Find ideas in constraint and tension
- Prototype with raw materials

Reflect

- Think about the process and experience
- Let one experience influence the next
- Repeat

How we learn and practice the 7 Mindsets

Games

Improv

Puzzles

Protocols

Mini design challenges
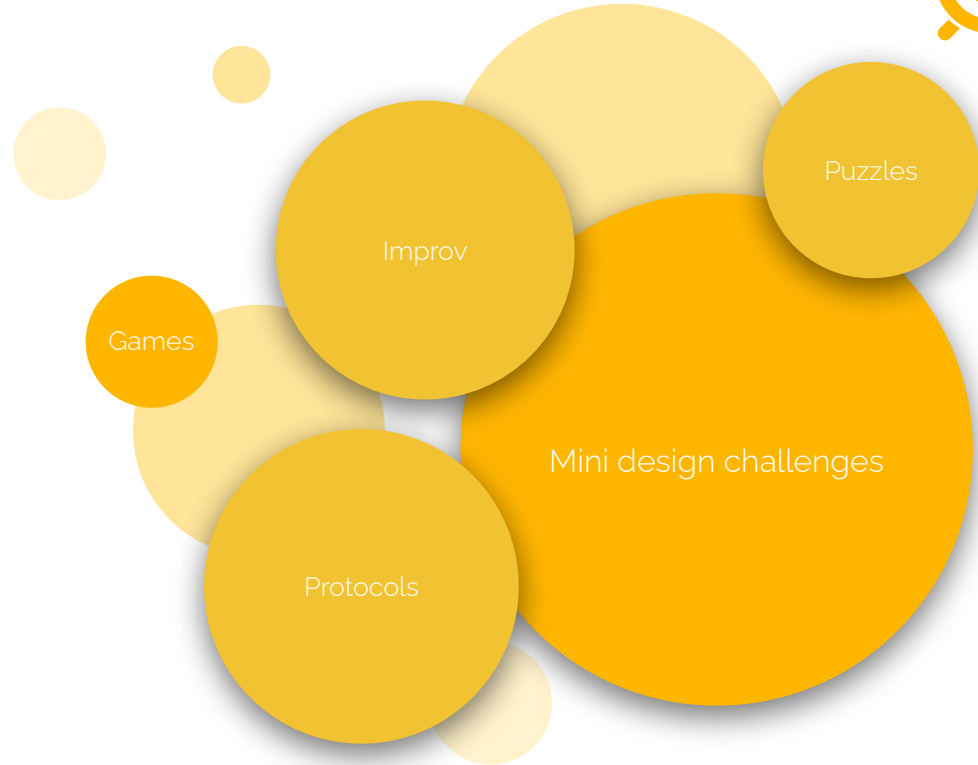
Paperclip Challenge

How many NEW uses can you think of in 4 minutes?

Rules for Brainstorming:
- Capture all ideas - one recorder
- Defer judgement
- Encourage wild ideas
- Build on ideas of others
- Stay focused on topic
- One conversation at a time
- Be visual
- Go for quantity

2

What are some changes this year?

Modified for 2022-23 School Year

Curriculum

- Shorter challenges
- Local, national, global challenges
- Various team configurations
- Activities adapted for social distancing, as needed

Location

- Moved to RESA Administration Building
- Open House opportunity tomorrow (August 26) 5-7PM
  - Limit to one parent/guardian with invited student
  - Masks required

499 Range Road, Marysville

Southwest corner of Smiths Creek and Range Road, first building on right

3

What are the program logistics?

2021-22 School Year

Why was I invited?
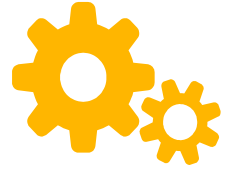
- Academic performance
- Student Characteristics
  - Creativity
  - Asks questions
  - Participates in discussions
  - Works collaboratively with peers
  - Persistent about completing tasks
  - Accepts academic challenges with enthusiasm
  - Expresses ideas in a variety of ways
  - Knowledgeable about a variety of topics
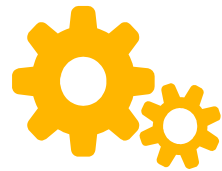
The Basics

- 7th grade students from all 7 local school districts
- Design Thinking & Problem Based Learning
- Design Sprints
- Partner organizations
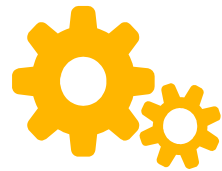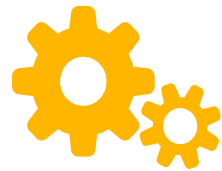
Friday Session

Capac

Marine City

Marysville

Memphis

St. Clair

Yale

Fall Schedule

September 16, 23, 30

October 7, 14, 21, 28

November 4, 11, 18

December 2, 9

January 6, 13

PM Session*

11:20AM–2:10PM

*PM times vary by district

If your school or two or more of our districts are closed due to inclement weather, your class at MSIA is also canceled.

Communication

- Remind
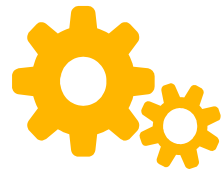- Website <u>sccmsia.weebly.com</u>
- Email, phone

Join Remind

- Text **@fkbe92b** to the number **81010**
- You will receive a welcome text from Remind
- The parent email address provided at registration will be added
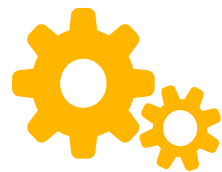- You may remove yourself at any time

Registration

- FREE
- Register here or bit.ly/MSIA2022
- Includes health and emergency information

Transportation

- Students will ride TEC bus to and from RESA
- Drop off and pick up in front of Administration building
- School-specific details provided on transportation document

Health & Safety

- Do not come to school if you are sick
- If, at any point during the program, your child has tested positive for COVID-19, contact Mindy Slanec at 810.455.4012
- Report all absences to Mindy Slanec at 810.455.4012

Thanks!

Any questions?

Rachel Verschaeve

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