SCHOOLS 2030
HUMAN-CENTERED DESIGN TOOLKIT

Developed by
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image.png" alt="Image" /></td>
<td><img src="page_numbers.png" alt="Page Numbers" /></td>
</tr>
</tbody>
</table>

- **INTRODUCTION**
  - LAUNCH
    - Launch Introduction
    - Launch Tools
    - Launch Transition
  - EXPLORE
    - Explore Introduction
    - Explore Tools
    - Explore Transition
  - DEFINE
    - Define Introduction
    - Define Tools
    - Define Transition
  - GENERATE
    - Generate Introduction
    - Generate Tools
    - Generate Transition
  - MAKE
    - Make Introduction
    - Make Tools
    - Make Transition
- **IMPLEMENT**
  - Implement Introduction
  - Implement Tools
  - Implement Transition
- **TEST**
  - Test Introduction
  - Test Tools
  - Test Transition
- **ANOTHER**
  - Another Introduction
  - Another Tools
  - Another Transition
- **CONCLUSION**

---

**SCHOOLS 2030 HUMAN CENTERED DESIGN TOOLKIT**

---

**Tools**

- Transition Introduction
- Transition Tools
- Transition Transition

**ANOTHER**

- Another Introduction
- Another Tools
- Another Transition

---

**Conclusion**

- Conclusion Introduction
- Conclusion Tools
- Conclusion Transition
INTRODUCTION

WHAT IS HUMAN-CENTERED DESIGN?

Human-centered design, a recognized approach for creating thoughtful experiences and systems, is a core practice of some of the most innovative companies and organizations in the world. Human-centered design has been utilized to create consumer products, healthcare systems, retail spaces, fundraising events, policies and procedures, curricula and more.

The foundation of human-centered design is a first-hand understanding of the human needs and experiences in the domains being designed. Critical in decision making about what to build is an understanding. It relies heavily on collaboration from a leaner, participant from potential users and stakeholders, in willingness to find the solution through deliberate cycles of learning, and in focus on action-over-planning.

Using the stakeholder-centered, iterative process of human-centered design can also provide helpful structure for designing more equitable solutions for all people, even those who are often left out or invisible. It is an approach that empowers stakeholders in the work of co-creation and iterative feedback. Human-centered design helps to identify solutions that will solve real problems and meet important (but sometimes overlooked) needs.

HUMAN-CENTERED DESIGN IN SCHOOLS

Human-centered design methodologies have gained increasing attention in K-12 education in recent years. This practice of using the process as a pedagogical framework for new work, problem-based learning for school leaders leveraging the process as a driver of innovation, progressive leaders of education systems around the world have adopted the human-centered design as a methodology to bring about systemic change.

Aren’t built environments that school systems are complex human environments that are actively designed, we continue to see the desires to equip educators and leaders with tools that are used by professional designers in order to creatively solve problems and actually imagine new futures.

WHAT IS THE TOOLKIT?

The toolkit is designed to support a design- and innovation-based approach for schools participating in the Schools2030 Initiative. The pages will be led by educators and school leaders, empowering them to identify problems and create solutions in response to concerns identified through the data collected with the H2OME app and through reflection. These pages will provide support for school leaders to identify the next phases of the learning cycle for their students in order to design and test solutions that address these next phases and that are responsive to learners.

WHAT DO YOU NEED TO KNOW?

Please read the pages in this section a toolkit for identifying learning outcomes to try to improve. We invite you to read all of the toolkit sections to identify learning opportunities that will suit your learning goals.

WHO WILL USE THE TOOLKIT?

The toolkit is designed to support teachers and other school leaders in the Schools2030 Initiative. As you work through this toolkit, it is likely that you will find a variety of resources that will be helpful to you, and you may also be able to identify additional resources that will be helpful to others.

HOW WILL YOU USE THE TOOLKIT?

You can use this toolkit to guide your work throughout the design challenge. Each phase of the challenge has a set of recommendations and activities for you to complete. Through the design challenge, you will work with your colleagues and students to identify and design learning opportunities in your classroom. You may find that some of the phases are specific to certain parts of the design challenge.

GOOD LUCK AND HAPPY DESIGNING!
INTRODUCTION

PHASES OF THE DESIGN PROCESS & WHAT IS INCLUDED IN THE TOOLKIT

For this project, there are ten phases. Each phase has different tools or activities that you need to complete in order to move to the next phase. See below for a list of the phases and tools included in the toolkit.

Throughout the toolkit, at the beginning of each phase there is an introduction page with context and tools for the phase, as well as summaries of the tools.

At the end of each phase there is a tool to help you summarize your work and assess your progress toward whether you are ready to move on or to reflect on what you have learned.

KEY CONCEPTS

NATIONAL STANDARDS

SCHOOLS

reflect

At

Throughout

that

For

n

INTRODUCTION

WHAT

LAUNCH

PROJECT

OF

THE

THE

PROCESS

&

this

you

of

-9

PROCESS

THE

LAUNCH

GENERATE

IMPLEMENT

TEST

DEFINE

Glossary of Terms

Action

goals

of

the

support

the

reflection

of

the

design

they

and

their

students.

and

regardless

of

the

through

literacy

and

technology

in

order

to

the

on

your

team

are

focusing

on.

PROMISE

app.

Review these learning outcomes here and throughout your
doing.

MULTIDISCIPLINARY

PROBLEM

OF

THE

BUILD

YOUR

PRODUCT

Build

your

idea

and

tackle

the

challenge.

TEST

YOUR

PRODUCT

Take

your

product

and

reflect

on

the

goals

you

have

set.

and

how

you

will

achieve

them.

WHAT

Glossary of Terms

Any work through this toolkit, you may encounter new words or phrases. Use the glossary to help define those words.

• Assumptions: A person’s beliefs that are not based on facts or evidence.

• Brainstorms: A process for creating a large number of ideas.

• Concept: A robust idea that has developed through multiple rounds of prototyping.

• Equity: An approach where every person, regardless of who they are, is given what they need or deserve in order to succeed and thrive.

• Framework: Thesaurus that you will complete independently through interviewing students and teachers and testing prototypes in the classroom and beyond.

• Generator: The process of creating something.

• Headline: A quick (few words) description – like a newspaper headline.

• How Might You...?: A quick question structure used in brainstorming. It emphasizes the collaborative and exploratory nature of brainstorming.

• Intelligibility: Accommodation in which some people gain more resources than others; those with less do not know what they need to succeed and thrive.

• Iterate: Make improvements on an idea based on feedback.

• Need: Thematic or desires or desires of a stakeholder.

• Pilot: The beginning of implementing an initiative where the idea is still being developed and refined.

• PKA: A brief three to four statements in a framework for communicating the new problem and needs of a specific stakeholder.

• PROMISE app: A digital application designed to be a source of quantitative data for your school.

• Prototypes: An early prototype that allows you to test your ideas before investing a lot of time and money. A series of prototypes happens before a pilot.

• Quick: Data collection: Communicating information through numerical representation.

• Qualitative Research: Information gathered from interviewing those with whom you are trying to understand.

• Reflection: The process of thinking about your own work in order to improve it.

• Resolution: The amount of effort and resources required to reach a certain standard of conformance.

• Scale: The number of stakeholders that a solution reaches.

• Sketch: A quick, imperfect drawing that helps you visualize your ideas.

• Stakeholder: A person, organization that, through your design work, you believe will meet the needs of the stakeholders.

• Stakeholders: The people for whom you are designing.

• Synthesis: The process of analyzing information in order to make sense of it and find new meanings.

• Test: The process of trying out your prototypes with real stakeholders in order to learn more about the solution.

• Workshop: The opportunity to converse in a large group – either regional or school-based – to do collaborative design work.

TEST

YOUR

PRODUCT

Take

your

product

and

reflect

on

the

goals

you

have

set.

and

how

you

will

achieve

them.

WHAT

Glossary of Terms

Any work through this toolkit, you may encounter new words or phrases. Use the glossary to help define those words.

• Assumptions: A person’s beliefs that are not based on facts or evidence.

• Brainstorms: A process for creating a large number of ideas.

• Concept: A robust idea that has developed through multiple rounds of prototyping.

• Equity: An approach where every person, regardless of who they are, is given what they need or deserve in order to succeed and thrive.

• Framework: Thesaurus that you will complete independently through interviewing students and teachers and testing prototypes in the classroom and beyond.

• Generator: The process of creating something.

• Headline: A quick (few words) description – like a newspaper headline.

• How Might You...?: A quick question structure used in brainstorming. It emphasizes the collaborative and exploratory nature of brainstorming.

• Intelligibility: Accommodation in which some people gain more resources than others; those with less do not know what they need to succeed and thrive.

• Iterate: Make improvements on an idea based on feedback.

• Need: Thematic or desires or desires of a stakeholder.

• Pilot: The beginning of implementing an initiative where the idea is still being developed and refined.

• PKA: A brief three to four statements in a framework for communicating the new problem and needs of a specific stakeholder.

• PROMISE app: A digital application designed to be a source of quantitative data for your school.

• Prototypes: An early prototype that allows you to test your ideas before investing a lot of time and money. A series of prototypes happens before a pilot.

• Quick: Data collection: Communicating information through numerical representation.

• Qualitative Research: Information gathered from interviewing those with whom you are trying to understand.

• Reflection: The process of thinking about your own work in order to improve it.

• Resolution: The amount of effort and resources required to reach a certain standard of conformance.

• Scale: The number of stakeholders that a solution reaches.

• Sketch: A quick, imperfect drawing that helps you visualize your ideas.

• Stakeholder: A person, organization that, through your design work, you believe will meet the needs of the stakeholders.

• Stakeholders: The people for whom you are designing.

• Synthesis: The process of analyzing information in order to make sense of it and find new meanings.

• Test: The process of trying out your prototypes with real stakeholders in order to learn more about the solution.

• Workshop: The opportunity to converse in a large group – either regional or school-based – to do collaborative design work.
ORIENTATION

SCHOOLS 2030 HUMAN-CENTERED DESIGN TOOLKIT

ORIENTATION

TITLE OF THE PHASE
This is the title of the page as well as the title of the phase. In this case, “Launch” is the phase and “Introduction” is the page.

TOOLKIT Orientation: Phase Introduction Pages
Review the diagram below to get oriented to the Introduction page for each phase. The Introduction pages are designed to give you context for the phase of the design challenge.

HOLISTIC LEARNING OUTCOMES
Identify all of the holistic learning outcomes identified in the Schools2030 initiative as a reference throughout your design work.

OVERVIEW, OBJECTIVES & MINDSETS
These boxes are designed to give you context for this phase of the design challenge.

- The Overview explains what you will be doing
- The Objective explains your goals for this phase
- The Mindsets explain what attitudes and behaviors you want to practice during this phase of the design challenge.

PHASE NAVIGATION BAR
This navigation bar shows you all the phases of your design challenge. The highlighted arrow shows you which phase you are currently working on.

WORKSHOP & FIELDWORK TOOLS
These boxes explain each of the tools you will be using during this phase of the design challenge and what your objective is for using each tool. Above the boxes you’ll see a title that specifies “workshop” or “field work.” Each box also includes a time estimate for completing the tool.
Review the diagram below to get oriented to how the tool pages are designed.

Each phase of the design challenge will have several tools that you will need to complete before moving on to the next phase.

TOOLKIT ORIENTATION TOOL PAGES
Bracketed lines below the diagram indicate how the tool pages are designed. Each phase of the design challenge will have several tools that you will need to complete before moving on to the next phase.

TOOLKIT ORIENTATION PHASE SUMMARY PAGES
Bracketed lines below the diagram indicate how the Summary page for each phase. The Summary pages are designed to help you individually gather up the work you completed in this phase so that you can share it with your team.

INSTRUCTIONS
The instructions will help you understand how to use the tool. Always read the instructions first.

PHASE NAVIGATION BAR
This navigation bar shows you all the phases of your design challenge. The highlighted arrow is the phase you are currently working on.

TITLE OF THE TOOL
This is the title of the tool. In this case the tool is called "Smooth Sailing."

TITLE OF THE PHASE
This is the title of the phase as well as the title of the page. In this case, "Launch" is the phase and "Summary" is the page.

TOOLS FROM THIS PHASE
These tools indicate all the tools you will use in this phase of the design challenge. They are in order. Read them from left to right.

EACH STEP OF THE TOOL
Each step of the tool is labeled with a number as well as a title. Each step of the tool has prompts that will guide you through what you need to create to complete the step.

WORKSHOP & FIELDWORK TOOLS
These tools give you reflection prompts to complete individually. These prompts are designed to ask you to focus your design work in order to get ready to share your work with your team. Above the boxes you’ll see a title that specifies “workshop” or “field work.”

LAUNCH TRANSITION SUMMARY
This navigation bar shows you all the phases of your design challenge. The highlighted arrow is the phase you are currently working on.

INSTRUCTIONS
The instructions will help you understand how to use the tool. Always read the instructions first.

PHASE NAVIGATION BAR
This navigation bar shows you all the phases of your design challenge. The highlighted arrow is the phase you are currently working on.
# LAUNCH INTRODUCTION

## OVERVIEW OF LAUNCH THE CHALLENGE PHASE

The worksheet in the Launch the Challenge phase is designed to help your team align around a particular challenge in terms of learning gaps and outcomes (reference the holistic learning outcomes on the right side of this page). The part of the design process should be conducted site-based teams. If there are enough participants, educators should put into teams based on age level of students.

In this phase is focused on identifying a problem. During the problem-solving phase you prepare for the design work you will be conducting in the next phase, which will be adaptive. This phase will be guided to the end of the problem-solving phase. The focus of the problem-solving process will include identifying strengths and addressing weaknesses of the school in terms of learning outcomes, connecting to quantitative data, framing the challenge, connecting to secondary research, and identifying stakeholders.

## OBJECTIVES OF LAUNCH THE CHALLENGE PHASE

The goals of this phase is to get your design team aligned around a particular framing of a problem, so that the actions you conduct in the next phase will be derived and connected to the team and the larger challenges facing your school. The worksheet will support you to examine different types of resources to help you frame the problem you are working to solve.

At the end of this phase, all team members should be clear and aligned on a common problem you are working to solve and should have a shared context for the problem.

## MINDSETS OF LAUNCH THE CHALLENGE PHASE

- Work together to understand the context
- Actively listen to understand potential problems and opportunities
- Stay optimistic that you can solve the problem
- Hold back on solving the problem during this phase

## TEAM WORKSHOP TOOLS

### #1 Smooth Sailing

**WHAT** The Smooth Sailing worksheet helps your team identify your school’s strengths and weaknesses.

**WHEN** When you have completed this tool, your team should be aligned around potential problems and opportunities.

- **Time Required:** 20-45 minutes

### #2 Quantitative Data Analysis

**WHAT** The Quantitative Data Analysis worksheet helps your team determine quantitative data to identify potential problems and challenges facing your group.

**WHEN** When you have completed this tool, your team should be aligned around potential problems as well as those stakeholders who are most affected by the problem.

- **Time Required:** 20-45 minutes

### #3 Identify a Problem to Explore

**WHAT** The Problem to Explore worksheet helps your team identify potential problem statements clearly and analyze data to identify a problem to solve.

**WHEN** When you have completed this tool, your team should be aligned around potential problems and opportunities to address during your design work.

- **Time Required:** 20-45 minutes

### #4 Make a Design Proposal

**WHAT** The Secondary Research worksheet helps your team research and examples of solutions that address the problem you are working to solve.

**WHEN** When you have completed this tool, your team should be inspired by proven examples and solutions that address the problem they have identified.

- **Time Required:** 20-45 minutes

### #5 Stakeholder Mapping

**WHAT** The Stakeholder Mapping Worksheet helps your team identify the different stakeholder groups that relate to the problem as well as those voices are most underrepresented.

**WHEN** When you have completed this tool, your team should be aligned around potential stakeholders to engage in the next phase of the process.

- **Time Required:** 20-45 minutes

## HOLISTIC LEARNING OUTCOMES

- Data Academic Proficiencies:
  - Literacy
  - Numeracy & Mathematics
- Applied Academic Proficiencies:
  - Health & nutrition
  - Humanities
  - Arts & culture
  - Digital literacy, technology & IT

## BEING OUR BEST

- Self awareness
- Self efficacy
- Self regulation
- Responsibility
- Taking responsibility
- Critical thinking
- Creativity
- Critical thinking
- Collaboration

## WORKING WITH OTHERS

- Communication
- Collaboration
- Open mindedness
- Empathy
- Relationship building
- Resolving tensions
- Critical thinking

## IMPROVING OUR WORLD

- Our community/our world
- Problem-solving
- Collaboration
- Empathy
- Resilient learning
- Reflective learning
- Respect for the Environment

## OUTCOMES

- Self awareness
- Self efficacy
- Self regulation
- Critical thinking
- Creativity
- Collaboration
- Communication
- Relationship building
- Problem solving
- Collaboration
- Critical thinking
- Creativity
- Empathy
- Resilient learning
- Reflective learning
- Respect for the Environment
Instructions: Imagine your school is a sailboat. Use that analogy to think of strengths, advantages, challenges, and threats related to improving learning outcomes identified in the Schools2030 initiative (see the first page of this section for reference).

1. **Advantages: Conditions that help your cause**
   - Example: Most students come to school every day.

   Students participate in afterschool activities.

2. **Strengths: Assets of your school**
   - Example: Teachers are dedicated.

   Students are dedicated to their studies.
   The school does not have enough teachers.

3. **Challenges: Deficits of your school**
   - Example: Students do not have access to computers at school.

   Students cannot articulate goals they have for themselves.
   Some students may leave school to earn money.

4. **Obvious threats: Conditions that hurt your cause**
   - Example: Students do not come to school when the weather is cold.

   The school does not have enough teachers.

5. **Non-obvious threats: Conditions that hurt your cause**
   - Example: Teachers might leave their job at the school.

   Some students may have to leave school to earn money.
Quantitative Data Analysis

1. INTERESTING QUANTITATIVE DATAPOINTS
Analyze the data in the PROMISE app to find the most interesting or troubling quantitative data points related to the holistic learning outcomes.

Students do not indicate that they should have a say in their education.

2. ANALYZING WITH AN EQUITY LENS
Now, look at the most interesting or troubling data points you found and analyze again, looking for populations of students who are underperforming or underperforming in a definition of equity.

Students who are from a minority group are no less likely to advocate for themselves.

3. DEFINE THE PROBLEM
Based on the data you selected, define the problem that your team would like to learn more about in order to solve it.

What is the problem?

Students do not have the skills to advocate for themselves.

What do you need to learn more about to better understand the problem you chose?

1. NEED TO LEARN MORE ABOUT HOW STUDENTS MAKE PERSONAL GOALS AND WHETHER THEY FEEL EMPOWERED TO ADVOCATE FOR THEMSELVES.

How is the problem connected to the holistic learning outcomes identified through the PROMISE app?

One of the Holistic Learning Outcomes is self-efficacy.
Identify a Problem to Explore

Instructions: Now that you have reflected on the strengths and challenges of your school, as well as looked at quantitative data, see the worksheet to identify a problem that you would like to explore during this design challenge. You will continue to explore this challenge before you develop a solution.

1. Analyze Smooth Sailing Activity
   Based on the first activity, Sailing, how well does your school reflect the holistic learning outcomes that you would like to address during this design challenge?
   - Students Cannot articulate goals they have for themselves.
   - Students do not have the skills necessary to advocate for themselves.
   - Students have a say in their education.

2. Analyze Quantitative Data Analysis Activity
   Based on the second activity, Quantitative Data Analysis, what are your guesses about what is at the center of the problem? What are your top three challenges facing your school related to the holistic learning outcomes that you would like to address during this design challenge?
   - Students do not indicate that they should have a say in their education.
   - Students do not have the skills necessary to advocate for themselves.
   - Students have a say in their education.

3. Find Patterns
   Before one problem that was highlighted is both the first and second exercises that is connected to the holistic learning outcomes identified in the PROMISE app? Select that problem to explore during this design challenge. Describe the problem below as you understand it right now.
   Students do not have the skills to advocate for themselves.

4. Inferencing
   What are your guesses about what is at the center of the problem?
   - Students do not have the skills necessary to advocate for themselves.

5. Learn More
   What are your top three challenges facing your school related to the holistic learning outcomes that you would like to address during this design challenge?
   - Students do not indicate that they should have a say in their education.
   - Students do not have the skills necessary to advocate for themselves.
   - Students have a say in their education.

6. Make Connections
   Why is this problem connected to the holistic learning outcomes identified using the PROMISE app? Describe the problem below as you understand it right now.
   One of the Holistic Learning Outcomes is self-efficacy.
Secondary Research

Instructions: Please select a resource that discusses research related to the problem you identified. Read the resource and complete the reflection questions below.

1. **TITLE OF RESOURCE:**

   How to build the foundation for self-advocacy in young children

2. **SUMMARIZE THE RESOURCE IN 3-4 SENTENCES.**

   "When kids have confidence, it makes it easier for them to speak up when they need help."

3. **MAKE A LIST OF THE FIVE MOST IMPORTANT IDEAS IN THE RESOURCE:**

   - "Younger kids can be taught how to speak up for themselves."
   - "Giving responsibility to young children helps build the foundation for self-advocacy."

4. **NEXT, ANSWER THE QUESTIONS BELOW:**

   - How does this resource relate to the challenge you identified?
   - Strategies for building self-advocacy in students
   - What questions or areas of inquiry does this resource make you think of as it relates to your problem?
   - How can we build these skills in students?
   - How does this resource relate to holistic learning outcomes identified in the Schools2030 initiative?

5. **WHAT INFORMATION DO YOU WANT TO BE SURE TO REMEMBER THROUGHOUT THE DESIGN CHALLENGE? WHAT DO YOU WANT TO LEARN MORE ABOUT?**

You can help students build self-advocacy skills.
Instructions: Stakeholders are the people for whom you are designing. Take some time to chart all of the people who might be impacted by the problem you have identified. Think of different roles within the different stakeholder roles. Once you have identified all of those groups whose work is influenced by the problem you have identified, take some time to map out and identify those who might be wanting to explore. Put their names on the spectrum below.

Once roles and people are identified, select groups that are most represented and least represented when it comes to the problem you are wanting to explore. Put their names on the spectrum below.

STAKEHOLDERS
Parents who live far from the school
Parents who work outside the home
Students who live far from the school
Students who work outside the home
LEAST
MUST REPRESENT
TEACHERS
SCHOOL
SENTRY
FAMILIES
COMMUNITY GROUPS
MUST REPRESENT
1
2
LAUNCH TRANSITION SUMMARY

LAUNCH TRANSITION ALIGNMENT

LAUNCH TRANSITION CHALLENGE PAGE

Identify the Challenge summary page to gather up the work you completed on each worksheet. Consider the holistic learning outcomes (see the right side of this page) as you summarize the information. Take the opportunity now to make changes as needed.

TEAM WORKSHOP TOOLS

#3 Smoothing Tools

What are the three most important advantages and strengths you identified?
What are the three most important challenges you identified?
What are the three most important threats you identified?

#4 Quality Assurance

What is the problem you identified?
What do you need to learn more about?

#5 Research

Name the three stakeholders or stakeholder groups you think are most underrepresented based on the problem you identified:
1. 
2. 
3. 

#6 Identity a Problem to Explore

What are one or two problems you want to explore based on the Smoothing Tools and the Quantitative Data worksheet?
What are you most curious to learn more about regarding this problem?
Why is this problem connected to the holistic learning outcomes identified in the PREMIE app?

SUMMARY ALIGNED TO THE CHALLENGE

In order to achieve alignment as a team, share each of your summary pages with the goal of identifying and combining the best ideas. Let each person read their summary response without interruption or comment from the team. If there are differing views and ideas from team members, ask questions to gain understanding. By question, think: “Can you share more information about how you came to this conclusion?” and “Tell me more about that…”

LAUNCH TO SUMMARIZE

In order to achieve alignment as a team, share each of your summary pages with the goal of identifying and combining the best ideas. Let each person read their summary response without interruption or comment from the team. If there are differing views and ideas from team members, ask questions to gain understanding. By question, think: “Can you share more information about how you came to this conclusion?” and “Tell me more about that…”

#3 Smoothing Tools

How does the answer your team chose relate to the holistic learning outcome identified in the Smoothing Tools indicator?

#4 Research

What is the problem you identified?
What do you need to learn more about?

#5 Identity a Problem to Explore

What are one or two problems you want to explore based on the Smoothing Tools and the Quantitative Data worksheet?
What are you most curious to learn more about regarding this problem?
Why is this problem connected to the holistic learning outcomes identified in the PREMIE app?

#6 Quality Assurance

What is the problem you identified?
What do you need to learn more about?

HOLISTIC LEARNING OUTCOMES

Core Academic Proficiencies

Literacy & Mathematical Proficiencies

Applied Academic Proficiencies

• Science
• Computing
• Innovation
• Art & Aesthetic
• Digital literacy, technology & media

Being Our Best

(All Individual learners)

• Self-awareness
• Self-efficacy
• Self-regulation
• Resilience
• Taking responsibility
• Critical thinking
• Reflective thinking

Working With Others

(Your class/school)

• Collaboration
• Communication
• Conflict management
• Empathy
• Sharing
• Recording

Improving Our World

(Your community/global)

• Problem-solving
• Critical thinking
• Entrepreneurship
• Respect for diversity
• Respect for the environment
**Reflection on Process**

Independently, reflect on how your team is working together by answering the questions below. Then share your reflections as a team.

- What is the most important insight you gained during this phase of the design challenge?

- About which part of this phase of the design challenge do you feel most confident?

- About which part of this phase of the design challenge do you feel least confident?

- What was the most difficult part to collaborate on for your team?

- How can you improve how your team works together in the next phase?

**Share out of Process**

When you have completed this reflection and are ready to transition to the next phase of the design challenge, share with your facilitator, school leader and/or colleague to get feedback on your progress thus far.

They can use the feedback framework of I like, I wish, I wonder to provide helpful ideas for where you can improve and where your work is strongest. Write down the feedback you receive below.

---

**EXPLORE**

SCHOOLS 2030 - HUMAN-CENTERED DESIGN TOOLKIT
**EXPLORE INTRODUCTION**

**OVERVIEW OF EXPLORE THE PROBLEM PHASE**

Illustrates how the Explore the Problem phase is designed to help your team understand the situation, emotions and motivations of others. Specific design research methods are used for an in-depth understanding of the problem you are designing. Preparation for this part of the process can be done collaboratively with other school groups. The purpose of the design challenge will include preparing for interviews, interview questions and additional techniques, interview reflection tools, and observation and journey mapping tools. Also included is the optional activity of visiting a school to shadow. Presentations and reflection tools are provided for the shadow experience.

**OBJECTIVES OF EXPLORE THE PROBLEM PHASE**

The goal of this phase is to engaging with the most relevant group(s) that are directly or indirectly connected to the problem you are seeking to solve. This phase focuses on having dialogues or conversations and gaining new perspectives through one-on-one conversations.

At the end of this phase, all team members should have engaged in three interviews (at least one must be a student) and compiled notes from these interviews. Team members should also complete an observation and journey map. The shadow shadow phase is an optional additional step.

**MINDSETS OF EXPLORE THE PROBLEM PHASE**

- Get inspired by people – active listening is a source of creativity.
- Put aside biases and assumptions about what you think the problem is or the solution.
- Look carefully to understand potential problems and opportunities.
- Stay optimistic that you can solve the problem.
- Hold back on solving the problem during this phase.

**TEAM WORKSHOP TOOLS**

1. **Preparation to Interview**
   - 30 minutes
2. **Interview Reflection**
   - 30 minutes

**INDIVIDUAL FIELDWORK TOOLS**

1. **Interview Questions**
   - 30 minutes to prepare, 20 minutes per interview
2. **Preparing to Shad**
   - 30 minutes to prepare, all day to shadow

**ADDITIONAL INTERVIEWING TECHNIQUES**

1. **Additional Interviewing Techniques**
   - 15 minutes to prepare

**HOLISTIC LEARNING OUTCOMES**

- Proficiencies: Literacy
- Proven: Numeracy & Information

Applied Academic Proficiencies

- Civic
- Engagement
- Innovation
- Critical Thinking

Working With Others (individual/teams)

- Collaboration
- Communication
- Empathy
- Relationship building
- Recording lessons

Improving Our World (our community/world)

- Problem-solving
- Civic engagement
- Collaboration
- Responsibility
- Respect for Diversity
- Respect for the Environment
Preparing to Interview

1. PREPARING TO INTERVIEW

- You will conduct three interviews with different stakeholders. At least one must be with a student. Schedule 30 to 60 minutes per interview.
- When you make arrangements with those you want to interview, be sure to give them context for this project. Share with the person that you will be asking them questions about activities that are underrepresented. You must also review the interview guideline that you do not want to review.
- Use the interview questions that are provided on the following pages to start the conversation. Aim for a conversation to discover more about the problem.
- You are not just looking for answers to questions. If you are feeling uncomfortable and want to ask your own follow-up questions, feel free to do so.

- Start with 4-6 questions. Select questions that you feel are relevant to the problem you identified in the Scoping the Challenge worksheet. Feel free to write your own questions as well.
- Do not feel that you have to ask all the questions on the list but do need to follow a particular sequence. You have provided a list of questions to help you get a sense of the problem.
- Review the list of supplemental questions and select one that may be interesting to follow up on at the end of the interview.
- When you are interviewing, be sure to take notes on what you hear and notice about the participant. Write down specific information.
- For young children or those who may be reluctant to share their thoughts and feelings, use the method described in Additional Interviewing Techniques page of the workbook. You will not benefit completely from the interview—select the methods that you think will be most beneficial.
- After you have completed your interviews, set aside time to headine (make short summaries of the highlights of your) interview.
- Take square post-it notes and capture your main takeaways and points or surprises that you noticed. Include these on the page you were reading. Feel free to have more than one post-it on each page.
- Refer to the Interview Reflection tool provided in the workbook to reflect on your interview.

2. SELECTING STAKEHOLDERS TO INTERVIEW

- Return to the Community Mapping worksheet online in Launch to review the stakeholders identified. Use this tool to select three stakeholders to interview who are most relevant to the problem you are exploring.
- Select specific people who represent a variety of stakeholders. Pick at least two people to interview, one who is often underrepresented. You may also interview at least one student.
- Remember that the people you interview may be nervous about opening up to you. Do your best to be an active listener (focused on their thoughts, nodding, asking follow-up questions, reflecting on your own thoughts). Ask the people you are interviewing that you will maintain their privacy.
- Remember everything you can to reduce the power differential. Get down on their level, be warm and casual and try not to be intimidating. Encourage them that you are genuinely interested in learning from them.
- Think about people who interview who are open and comfortable sharing their thoughts and feelings. Select extreme cases—extreme cases are the best. Student who is very disengaged, a social worker, a trend new teacher, often have behaviors and feelings that are more amplified. These can help you better understand the problem.
- Have more extreme points of view. If we design for their needs, we often create solutions that are broadly appealing.
- Write the names of the specific people you want to interview below.

- Interview #1
  Name: 
  Stakeholder group: Student

- Interview #2
  Name: 
  Stakeholder group: 

- Interview #3
  Name: 
  Stakeholder group:

3. TIPS FOR INTERVIEWING

- These interviews are not as easy as focus groups. You want to connect with a stakeholder one-on-one so you can really focus on hearing their perspectives and following up on their stories.
- You can’t really ask a person, “What do you do?” Designers have found that it is difficult to ask people to come to terms with who you are and what they are doing.
- Interview with an “as” (beginning, middle, and end). Start by introducing yourself and your project.
- Ask few open-ended questions. What do you do in your free time?
- Ask open-ended questions that solicit stories.
- E.g. Tell me about your favorite class in school.
- Don’t offer answers to your own questions.
- Follow up interesting things that they hear or observe. Look for body language cues, facial expressions, and emotions.
- Talk about feelings. E.g. Tell me more. What did you mean when you said that?
- Look for the deeper “why.” Dig deep to really understand what motivates your stakeholder while being sensitive to their emotional boundaries.
- A good way to ask “why” is to ask “tell me more about…”. Don’t ask, “are you afraid?”
- Don’t be afraid of silence. Often the person will fill the silence with a deeper thought.
- This process may be uncomfortable but it is critical to the success of the project that you discover these insights about your stakeholder.
- Do everything you can to make them comfortable and willing to open up and share.
- If you can, interview with a partner so that one person can focus on connecting with the person you are interviewing and one person can focus on capturing questions and notes.
Instructions: Use these interview questions to get the conversation started with different stakeholders. Before you begin the interview, select 3-5 questions and then choose from the next page that are most relevant to the problem you are exploring. Feel free to modify questions to be culturally appropriate.

Interview Questions

Tell me about the activities you are involved in at school. What about outside of school?

Tell me about your favorite class subject. Why?

Tell me about a project that you have learned in. Why?

Tell me about a project where you learned the most. Why?

Tell me about a time when you saw a connection between what you learned at school and your future. How did this make you feel?

Tell me about a time when you saw a connection between what you learned at school and your future. What are your goals for your student learning? Include several questions about the holistic learning outcomes you are trying to increase:

Tell me about what activities you are involved in at school. What about outside of school?

Tell me about what you did in your free time. How does your child describe his or her school day?

Tell me about your favorite class subject. Why?

Tell me about a project that you have learned in. Why?

Tell me about a project where you learned the most. Why?

Tell me about a time when you saw a connection between what you learned at school and your future. What are your goals for your student learning? Include several questions about the holistic learning outcomes you are trying to increase:

Tell me about what activities you are involved in at school. What about outside of school?

Tell me about what you did in your free time. How does your child describe his or her school day?

Tell me about your favorite class subject. Why?

Tell me about a project that you have learned in. Why?

Tell me about a project where you learned the most. Why?

Tell me about a time when you saw a connection between what you learned at school and your future. What are your goals for your student learning? Include several questions about the holistic learning outcomes you are trying to increase:

Tell me about what activities you are involved in at school. What about outside of school?

Tell me about what you did in your free time. How does your child describe her or his school day?

Tell me about your favorite class subject. Why?

Tell me about a project that you have learned in. Why?

Tell me about a project where you learned the most. Why?

Tell me about a time when you saw a connection between what you learned at school and your future. What are your goals for your student learning? Include several questions about the holistic learning outcomes you are trying to increase:

Tell me about what activities you are involved in at school. What about outside of school?

Tell me about what you did in your free time. How does your child describe her or his school day?

Tell me about your favorite class subject. Why?

Tell me about a project that you have learned in. Why?

Tell me about a project where you learned the most. Why?

Tell me about a time when you saw a connection between what you learned at school and your future. What are your goals for your student learning? Include several questions about the holistic learning outcomes you are trying to increase:
Supplemental Interview Questions

Instructions: Select questions relevant to the problem you are trying to solve from these supplemental interview questions provided. Feel free to draft your own questions and/or modify these questions to be culturally appropriate.

STUDENTS

How does your family support your learning? Tell me more.

Are there conflicts you have with your family about school? Why?

Tell me about your best memory from school. What was it, and why did it make you feel that way?

Tell me about a time you were in a different learning environment.

When do you feel most productive at school? Why?

When do you feel least productive at school? Why?

When do you feel you are learning the most? Why?

When do you feel you are learning the least? Why?

Are there ever times when you cannot concentrate on classwork? Tell me more.

When do you feel most satisfied with your role at school? Why?

When do you feel least satisfied with your role at school? Why?

What is your favorite time of day at school? Why?

What is your least favorite time of day at school? Why?

What is your favorite day of the week? Why?

What is your favorite season of the year? Why?

Tell me about a student who has inspired you. Who is it, and why?

Tell me about a teacher who has inspired you. Who is it, and why?

Tell me about a teacher who has influenced your learning. Who is it, and why?

Tell me about a teacher who has taught you a lot. Who is it, and why?

Tell me about a teacher who has taught you something you wish you had known. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?

Tell me about a teacher who you wish you could have learned from. Who is it, and why?
Some techniques may be why or very young. Use these techniques to engage stakeholders in different ways.

**Additional Interviewing Techniques**

**Use Play or Drawing**
- Ask the student to show you their favorite and least favorite things **about school**, either through playing with toys or drawing pictures.
- Ask them, “Tell me more about why you did that... Tell me about what this means...”
- Use to take notes and write down specific quotations that you hear.

**Read a Story**
- Read a story about school or look at a picture book together.
- Ask them, “What do you like about this story?” “What do you dislike about this story?” How does this remind you of our school?” How does it not remind you of our school?”
- Use to take notes and write down specific quotations that you hear.

**Image Sort**
- Photocopy ten to twelve pictures of items or places that are related to the student (playground, train station, home, the ocean, a cafe, etc.). The pictures cannot be related. They do not need to be school-related.
- Ask the student to pick out images that remind them of how they feel when they are at school. These pictures do not need to be directly relevant.
- They are meant to prompt the student’s creative and emotional reflection.
- Ask them, “Why did you choose this image?” How does this remind you of our school?” How does it not remind you of our school?”
- Use to take notes and write down specific quotations that you hear.

**Ask Students to Choose Faces That Represent Their Feelings**
- Give the student a sheet with different faces on it – see below as an example.
- Ask them, “Point to the face that represents how you feel about school.” “Tell me more about why you choose that face.”
- You can also ask, “Tell me about your least day at school.” Pick the face that represents that day. “Tell me about why you chose that face.”
- You can also ask, “Tell me about your worst day at school. Pick the face that represents that day.” “Tell me more about why you chose that face.”
- Let the student interpret what each face means to them and explain to you what they are thinking.
- Use to take notes and write down specific quotations that you hear.

**Ask Students to Interview a Friend**
- Ask the student to find a friend to interview about school. Tell them you want to learn more about their experience with school and you want to see things through their eyes.
- Observe and listen as the student interviews their friend.
- Afterwards, debrief with the interviw. Ask them, “Tell me more about why you asked that question...What do you think of their answer? Do you relate to that? Why or why not?”
- Use to take notes and write down specific quotations that you hear.

**Time a Tour**
- Ask the student to show you their favorite and least favorite things about school by taking you on a tour.
- Ask them, “Tell me more about why you brought me here...What do you like about this? Why? What do you dislike about this? Why?”
- Use to take notes and write down specific quotations that you hear.
Interview Notes #1

INTERVIEW QUESTIONS

Steven fine from the first interview question page and then from the supplemental interview question page. Choose the questions that are most relevant to the problems you are facing.

1. What did you hear? Write down specific quotations. Listen for obvious dishonesty, contradictions, and behaviors. Look for interesting or contradictory information.

“Do you have any idea what it means to you for my career...I have to follow what my parents say!”

“My teachers do not listen to me when I talk about my goals for my future.”

2. What did you see? Look for emotions, body language, facial expressions. I saw a student look down and look sad when he talked about his future goals.

3. Additional Interview Techniques

If you are using additional interview techniques, write them here.

INTERVIEW QUESTIONS

Steven fine from the first interview question page and then from the supplemental interview question page. Choose the questions that are most relevant to the problems you are facing.

1. What did you hear? Write down specific quotations. Listen for obvious dishonesty, contradictions, and behaviors. Look for interesting or contradictory information.

“Do you have any idea what it means to you for my career...I have to follow what my parents say!”

“My teachers do not listen to me when I talk about my goals for my future.”

2. What did you see? Look for emotions, body language, facial expressions. I saw a student look down and look sad when he talked about his future goals.

3. Additional Interview Techniques

If you are using additional interview techniques, write them here.

ADDITIONAL INTERVIEW TECHNIQUES

If you are using additional interview techniques, write them here.
Instructions: Review the notes you captured from your interview. Use this worksheet to begin the process of synthesizing what you heard and observed.

1. Describe who you interviewed
   - Who did you interview?
   - Age, gender, role, likes, dislikes, strengths, weaknesses.

   Joe, an energetic middle school student who does not succeed academically in school but loves playing sports.

2. What stories did you hear?
   - One time a neighbor of Joe's came home from college. Joe was fascinated by her experiences and decided that he wanted to go to college too.

3. What emotions did you observe?
   - Joe was frustrated that the adults in his life don't listen to his goals.

4. What are the five most important things you learned that are relevant to the problem you are exploring?
   - "I do not have any choice about what I do for my career, I have to follow what my parents say."
   - "My teachers do not listen to me when I talk about my goals for my future."
   - Students do not feel hopeful about their future options.
   - Sometimes parent voices dominate student voices.
Interview Notes #2

Interview Reflection #2

Instructions: Use this worksheet to begin the process of synthesizing what you heard and observed.

Instructions: Review the notes you captured from your interview. Use this worksheet to begin the process of synthesizing what you heard and observed.

INTERVIEW QUESTIONS

Directions: Use this worksheet to prepare your interview and to take notes during your interviews. Unlike interview questions provided to get the conversation started with different stakeholder groups, follow up on interesting things you hear. You can ask, “Tell me more about...” to keep notes about the specific details and quotations you hear from your interviews. Use post-it notes to capture the most interesting things you hear and observe. Listen and look for emotions and motivations. Also, listen for ideas that are surprising to you as well as contradictory information. The more notes you take, the better your ideas will be later in the design challenge.

WHAT DID YOU HEAR?

Write down specific quotations. Listen for stories, emotions, motivations and behaviour. Listen for unspoken or contradictory information.

WHAT DID YOU SEE?

Look for emotions (sadness, excitement, joy) in the person’s body language and facial expressions.

ADDITIONAL INTERVIEW TECHNIQUES

If you are using additional interview techniques, write them here.

1. Describe who you interviewed?
   - Name, role, school, location, strengths, weaknesses.

2. What stories did you hear?

3. What emotions did you observe?

4. What are the most important things you learned that are relevant to the problem you are exploring?
Interview Notes #3

Instructions: Identify worksheet to prepare to conduct your interviews and to take notes during your interviews. Unlike interview questions provided to get the conversation started with different stakeholders, follow up on interesting things you hear. You can ask, "Tell me more about...". Be sure to keep notes about the specific stories and quotations you hear from your interviews. Use these to capture the most interesting things you hear and observe. Listen and look for emotions and motivations. Also, listen for ideas that are supporting you as well as contradictory information. The more notes you take, the better your ideas will be in the design of change.

INTERVIEW QUESTIONS

1. What did you hear?

WHAT DID YOU HEAR?

What did you hear? Write down specific quotations. Listen for (sadness, joy, excitement, etc.) and behaviors. Listen for (contradiction, consistency) information.

2. What did you see?

WHAT DID YOU SEE?

What did you see? Look for emotions (sadness, excitement, joy) in the person's body-language and facial expressions.

3. What did you do?

ADDITIONAL INTERVIEW TECHNIQUES

If you are using additional interview techniques, write them here.

Instructions: Review the notes you captured from your interviews. Use the worksheet to begin the process of synthesizing what you heard and observed.

Interview Reflection #3

1. Describe who you interviewed?

1. Describe who you interviewed?

Who did you interview?

Age, gender, race, class, abilities, strengths, weaknesses.

2. What stories did you hear?

2. What stories did you hear?

Think about the (sadness, joy, excitement, etc.) you heard from the interviewees.

3. What emotions did you observe?

3. What emotions did you observe?

What emotions did you observe (sadness, joy, excitement, etc.)?

4. What are the most important things you learned that are relevant to the problem you are exploring?

4. What are the most important things you learned that are relevant to the problem you are exploring?
Observations & Journey Mapping

Instructions: Journey maps are a method of design that can help you gain more insight into a stakeholder’s experience. Pick one student to observe over the course of a day. Use the framework to map how engaged you think the student was during different parts of the day. Include arriving at school, morning class, lunch, afternoon class, breaks, and dismissal.

Take note of anything that you notice as you listen and observe. This might include potential areas of opportunity or questions about which you might want to learn more.

I noticed that my student was very engaged when he was learning a topic that he understood was relevant to his future. “My sister took algebra when she is ordering for our family store.” He was visibly excited and leaning toward me ready to learn.

I noticed that my student was very disengaged in topics that did not interest him. At one point, “Why are we learning this?” and put his head down on the table while we were studying health topics.
Preparing to Shadow - Optional

1 PREPARING TO SHADOW

Any component of the human-centered design process is developing a deep understanding of the needs and motivations of the people for whom you are solving problems. For this exercise, you will immerse yourself in the student experience at another school to help you gather inspiration and insights into areas of work you are working on at your own school.

Here’s what you need to do:

Spend a full day shadowing a student. Ideally, you would start from before the student arrives at school to right as they leave. When it might be difficult to engage shadowing them at home (and it is if it doesn’t work). It is important to understand how the student’s full life is affected by their experiences at school. You will end the shadowing as the student leaves campus.

Your goal:

Your goal is to experience the student’s day: what it feels like when you are engaged and when you are not, what your are thinking, what happens, etc. Try to get out of your own experiences at your school and into the student’s.

The point of this exercise is about helping you understand what it feels like to be a student: not to observe and analyze the student, but to understand the student. It’s likely that the student’s experience is altered a bit because you are shadowing. Focus on how you feel in classes, during breaks and at the end of the day.

Approach the day with a curious, open mind. Your job during your immersion day is to evaluate or judge what you see and experience. Rather, your goal is to let go of your own agenda and your own thoughts and feelings. It’s important to observe the student experience as it happens you want to be mindful of the student’s story. You are not trying to solve problems or intervene today. You are trying to fully observe and participate. We have provided tools to help you take notes. Try to make specific observations and avoid generalizations.

By observing with empathy, you will increase your chances of discovering opportunities for solutions that respond to the needs of your stakeholders.

2 TIPS FOR SHADOWING

Try to blend in and allow the student’s day to naturally unfold. It will be different because of your presence, of course, but work hard to not influence the experience too much. Don’t wear your normal professional attire. Wear comfortable clothes and shoes.

Really try to experience what the student experiences. The more walking the halls during break, eating lunch in the cafeteria, going to every class, etc.

This also means not talking to classmates or adults, not going to the break room, not doing things that only adults in the building are allowed to do.

Take lots of notes. Capture detailed descriptions of everything you experience.

These tools will help you remember key moments or intriguing details.

3 PLANNING FOR YOUR SHADOW

1. Find a school that would be willing to have you shadow a student for the day.

2. Ask the school to help select a student to shadow. Ask them to think about selecting a student who represents a particular set of experiences you want to learn more about (high-schooling, disengaged, etc.).

3. Check in with the student before the shadow day. Explain the purpose and project of your shadow. Make sure the student’s teacher knows that you will be shadowing. Let the teacher know that this not about criticizing their classroom, it is about experiencing life as a student.

4. Clear your schedule for the day. Find people to fill in for your regular duties at your own school.

5. Meet the student at the beginning of the day. Spend a little time getting to know your student and breaking the ice.

6. Take pictures, if the student is comfortable and the parents agree.

7. Take notes to capture your observations of different parts of your student’s day. Include lunch, recess, breaks and transitions.

8. At the end of the day, complete the Reflection worksheet. Use the Reflection worksheet to help you identify what inspiration and insights you gained.
**Shadow Notes - Optional**

**Instructions:** Keep notes about the specific stories and quotations you hear from your shadow experience. Use post-its to capture the most interesting things you hear and observe. Listen and look for emotions and motivations, especially your own. Also, listen for ideas that are surprising to you as well as contradictory information. The more notes you take, the better your ideas will be later in the design challenge.

---

**WHAT DID YOU HEAR?**

“I don’t like days when we do not get to do art.”

---

**WHAT DID YOU SEE?**

I saw the student I shadowed get very excited when she was with her friends during a break.

---

**WHAT DID YOU FEEL?**

I felt exhausted by the end of the day. It was hard to sit in a seat for so many hours listening.
Describe Who You Shadowed
Who did you shadow? Age, gender, role, likes, dislikes, strengths, weaknesses.

What Stories Did You Hear?
Sara told me about the project that made her the most proud — a painting of her little sister. She was proud because her family put the painting on the wall of their house.

What Emotions Did You Observe?
Sara was bored and disengaged by the end of the day.

What Did You Learn That Are Relevant to the Problem You Are Exploring?
I don’t like days when words do not get done.
I saw the student give up during an essay test and put her head on the desk. I saw the teacher try to motivate her to keep going but with no success.
I saw the student I shadowed get very excited when she was with her friends during a break.
I felt exhausted by the end of the day. It was hard to sit in a seat for so many hours listening.

How Did You Feel?
By the end of the day, I was exhausted. Students have to sit a lot all day!
**EXPLORE**

**TECHNIQUES**

What are the three most important things you learned during your observation?

1. 
2. 
3.

**TRANSITION**

**ADDITIONAL TECHNIQUES**

What were the three best questions you asked or techniques you used that lead to new understanding or ideas?

1. 
2. 
3.

**TEST**

**INTERVIEW**

What are the three most important things you learned during your second interview?

1. 
2. 
3.

**REFLECTION**

**INTERVIEW**

What are the three most important things you learned during your third interview?

1. 
2. 
3.

**SUMMARY**

**INTERVIEW**

What are the three most important things you learned during your shadowing?

1. 
2. 
3.

**IMPLEMENT**

**INTERVIEW**

What are the three most important things your team learned from this Explore phase?

1. 
2. 
3.

**CRITERIA**

Moving to the next phase

Use the criteria below to assess your team’s progress at each of the criteria below to assess your team’s progress at each of the phase. Circle the description that most represents your team’s progress. For example: 

1. How did you know the criteria was met or not met?

**OUTCOMES**

**DEFINE**

What do you think about the criteria you have so far?

1. 
2. 
3.

**EXPLORE**

**MAKE**

What are your plans for moving forward?

1. 
2. 
3.

**TEST**

**INTERVIEW**

How does your team’s exploration of the problem connect to improving the holistic learning outcomes for your students?

1. 
2. 
3.

**REFLECTION**

**INTERVIEW**

How will you look back on your experience in the different criteria in the future? If you are not confident, try reading out to your facilitator for feedback or talk to another colleague for this feedback. If you are more than two areas where your team is not confident, work to improve before moving on.

1. 
2. 
3.
EXPLORE TRANSITION REFLECTION

**Reflection on Process**
Independently, reflect on how your team is working together by answering the questions below. Then share your reflections as a team.

- What is the most important insight you gained during this phase of the design challenge?

- What part of this phase of the design challenge do you feel most confident?

- What part of this phase of the design challenge do you feel least confident?

- What was the most difficult part to collaborate on for your team?

- How can you improve how your team works together in the next phase?

**Share Out of Process**
When you have completed this reflection and are ready to transition to the next phase of the design challenge, share with your facilitator, school leader, and/or colleague to get feedback on your progress thus far.

They can use the feedback framework of I like, I wish, I wonder to provide helpful ideas for where you can improve and where your work is strongest. Write down the feedback you receive below.

**Define**

SCHOOLS 2030 HUMAN-CENTERED DESIGN TOOLKIT
DEFINE INTRODUCTION

• Overview of Define the Problem Phase
  The workshop in the Define the Problem phase of the challenge are focused on developing a point of view about the needs of your stakeholders. During this stage of the challenge, designers narrow their list of information to a statement that is specific and specific. This part of the process is driven by user-based teams or collaborations with other schools.
  The phase of the design challenge will include: analyzing your design research activities (interviews, observations and feedback); completing a Write a Point of View statement and writing How Might We questions.

• Objectives of Define the Problem Phase
  The goals of this phase is to identify the needs of your stakeholders based on what you heard and saw about their experiences, motivations and emotions. At the end of this phase, all team members should be clear on several views of your observations that they will use to inform design work. The team will also generate How Might We questions that they will use to generate solutions.

• Mindsets of Define the Problem Phase
  • Seek new perspectives on old problems
  • Look carefully to understand potential problems and opportunities
  • Stay optimistic that you can solve the problem
  • See opportunities in constraints
  • Get comfortable with navigating contradictory information.
  • Hold back on solving the problem during this phase

DEFINE OUTCOMES

• Holistic learning outcomes
  • Communication
  • Collaborative
  • Critical thinking
  • Creativity
  • Entrepreneurship
  • Empathy
  • Empowerment
  • Open-mindedness
  • Self-regulation
  • Self-efficacy
  • Relationship building
  • Resilience
  • Self-reflection
  • Self-directed learning

• Applied academic proficiencies
  • Numeracy & Mathematics
  • Literacy
  • Understanding of the individual learner
  • Understanding of the community
  • Understanding of the discipline

• Core academic proficiencies
  • Literacy
  • Numeracy & Mathematics
  • Science
  • Health & Nutrition
  • Arts & culture
  • Humanities
  • Health & nutrition

• Working With Others
  • Emotions
  • Needs
  • Emotions

• Supporting Our World
  • Context of your world
  • Problem solving
  • CHALLENGE
  • Core engagement
  • Entrepreneurship
  • Respect for diversity
  • Respect for the environment

TEAM WORKSHOP TOOLS

#1 Observations & Guesses
  45-60 minutes
  • WHAT IS THIS TOOL?
    Observations & Guesses is a worksheet designed to help you highlight compelling observations (lake for surprise, tension and contradictions) and infer these observations with a statement that phrases them.
  • WHAT IS YOUR GOAL?
    This tool can help you make meaning of the qualitative data you gathered through your design research activities.

#2 Point of View
  20-45 minutes
  • WHAT IS THIS TOOL?
    Point of View is a worksheet designed to help you take your observations and generate your Point of View statement that expresses the emotions of the stakeholder for whom you are designing.
  • WHAT IS YOUR GOAL?
    Your PV statement will help your team rally around a real person’s story and their needs in order to design challenge.

#3 How Might We Questions
  20-45 minutes
  • WHAT IS THIS TOOL?
    How Might We Questions are designed to help your team turn your PV statement into How Might We questions that will drive your transforming process.
  • WHAT IS YOUR GOAL?
    HMW questions help you rally your team around a question that captures the needs and emotions of your users. HMW question also expand the problem in a way that creates a generative atmosphere for new ideas.
Observations

Instructions: Review your notes from the interview you conducted as well as the observation you made. Use Journey Map and Shadow. Circle or highlight things you think or see that struck you as important.

WE NOTICED:
(What did you hear? What did you see?)
Think of surprises, conflicts or contradictions.

"I DON’T LIKE DAYS WHEN WE DON’T GET TO DO ART."
- SHADOW

"MY TEACHERS DON’T LISTEN TO ME. WHEN I TALK ABOUT GOALS FOR MY FUTURE, THEY JUST IGNORE ME."
- INTERVIEW

I NOTICED THAT MY STUDENT WAS VERY ENGAGED WHEN HE WAS LEARNING A TOPIC THAT HE UNDERSTOOD WAS RELEVANT TO HIS FUTURE.

"MY SISTER TOLD ME SHE USES ALGEBRA WHEN SHE IS ORDERING FOOD FOR OUR FAMILY STORE."
- INTERVIEW

NOTICE POST-IT
**Observations & Guesses**

**Instructions:** Pick the top five most interesting things you heard or saw from the previous worksheet and move the post-its to the left side of this worksheet. Next, make a guess for why you think each thing you noticed is important. Write each guess on a post-it note and stick it on the right side of the sheet.

---

**WE NOTICED:**
(What did you hear? What did you see?)
(Think of surprises, conflicts or contradictions.)

**I DON'T LIKE DAYS WHEN WE DON'T GET TO DO ART.**
- Shadow

**MY SISTER TOLD ME SHE USED ALGEBRA WHEN SHE IS ORDERING FOR OUR FAMILY STORE.**
- Journey Map

**SARA ENJOYS SCHOOL WHEN SHE GETS TO STUDY TOPICS THAT ARE INTERESTING TO HER.**

**JOE IS MORE ENGAGED IN HIS STUDIES WHEN HE BELIEVES WHAT HE IS LEARNING IS RELEVANT TO HIS FUTURE AND CONNECTED TO THE REAL WORLD.**

**WE THINK THIS IS IMPORTANT BECAUSE:**
(What is your guess about why this matters?)

**INFER**
**Point of View 1**

1. **MEET:** Describe one person you interviewed.

   **JOE, AN ENERGETIC MIDDLE SCHOOL STUDENT WHO DOES NOT SUCCEED ACADEMICALLY IN SCHOOL BUT LOVES PLAYING SPORTS.**

2. **THINK:**

   - What did you hear or see? Think of surprising, conflicts or contradictions.

   "MY SISTER TOLD ME SHE USED ALGEBRA WHEN SHE IS ORDERING FOR OUR FAMILY STORE." - JOURNEY MAP

   - WE THINK THIS IS IMPORTANT BECAUSE: What is your guess about why this matter?

   STUDENTS ARE MORE ENGAGED IN THEIR STUDIES WHEN THEY BELIEVE THAT WHAT THEY ARE LEARNING IS RELEVANT TO THEIR FUTURE AND CONNECTED TO THE REAL WORLD.

3. **NEEDS WAY TO:**

   **JOE NEEDS WAY TO UNDERSTAND THE CONNECTIONS BETWEEN WHAT HE IS STUDYING TODAY AND HIS FUTURE.**

   - If the needs statement feels too big and overwhelming, ask yourselves: What's stopping him from meeting this need? Then rewrite the need around what you identified as a barrier.

   - If the needs statement feels too much like a solution, ask yourselves: Why wouldn't we want to do this? Then rewrite the need around the motivation.

   - WE THINK THIS IS IMPORTANT BECAUSE: What is your guess about why this matter?

   HE DOESN'T SEE THE CONNECTION TO HIS FUTURE because [describe problem]

4. **POV STATEMENT:**

   **JOE IS STRUGGLING WITH FEELING MOTIVATED TO WORK HARD AT HIS STUDIES**

   - WE THINK THIS IS IMPORTANT BECAUSE: What is your guess about why this matter?

   SHE/HE NEEDS A WAY TO UNDERSTAND THOSE CONNECTIONS TO HIS FUTURE TO HELP INCREASE HIS SELF-EFFICACY because [describe problem]

   - WE THINK THIS IS IMPORTANT BECAUSE: What is your guess about why this matter?

   STAKEHOLDER IDENTIFIED [stakeholder] a need to...
Point-of-View 2

1. **WE MET:** Describe one person you interviewed.

   **JOE, AN ENERGETIC MIDDLE SCHOOL STUDENT WHO DOES NOT SUCCEED ACADEMICALLY IN SCHOOL BUT LOVES PLAYING SPORTS.

2. **NEEDED WAY TO:** Describe what your stakeholder needs.

   **JOE NEEDS WAY TO UNDERSTAND THE CONNECTIONS BETWEEN WHAT HE IS STUDYING TODAY AND HIS FUTURE.**

3. **WE NOTICED:** What did you hear or see? Think of surprises, conflicts or contradictions.

   **"MY SISTER TOLD ME SHE USED ALGEBRA WHEN SHE IS ORDERING FOR OUR FAMILY STORE" - JOURNEY MAP**

4. **WE THINK THIS IS IMPORTANT BECAUSE:** What is your guess about why this matters?

   **STUDENTS ARE MORE ENGAGED IN THEIR STUDIES WHEN THEY BELIEVE THAT WHAT THEY ARE LEARNING IS RELEVANT TO THEIR FUTURE AND CONNECTED TO THE REAL WORLD.**

---

Point-of-View 2

1. **WE MET:** Describe one person you interviewed.

2. **NEEDED WAY TO:** Describe what your stakeholder needs.

3. **WE NOTICED:** What did you hear or see? Think of surprises, conflicts or contradictions.

4. **HE THINKS THIS IS IMPORTANT BECAUSE:** What is your guess about why this matters?

---
DEFINE TRANSITION SUMMARY

# SUMMARY: DEFINING THE PROBLEM/PHASE
Use the Define the Problem summary page to gather up the work you completed during each phase of the process. Reflecting about the holistic learning outcomes (see the right side of this page) as you summarize the information. Take the opportunity now to make changes as needed.

# TEAM WORKSHOP TOOLS

#1 Observations & Guesses
What are the two most important things you noticed and the related guesses you created?

#2 Point of View Statement
What is the best POV statement you wrote?

#3 How Might We Questions
What are the three most generative HMW questions that you selected?

# TEAM ALIGNMENT

In order to seek alignment as a team, share each of your summary pages and use the questions below to align your team's focus so that you can move on to the next phase.

- What are the three HMW questions that are connected to the POV that your team will move forward on?

- How does your team’s POV statement and HMW questions connect to improving the holistic learning outcomes for your students?

- What are the three HMW questions that are connected to the POV that your team will move forward on?

- How might your team's POV statement move forward?

- In what areas do you think your team's HMW questions are strong?

- In what areas do you think your team's HMW questions are challenging?

- What are the three HMW questions that are connected to the POV that your team will move forward on?

- How might your team's POV statement move forward?

- In what areas do you think your team's HMW questions are strong?

- In what areas do you think your team's HMW questions are challenging?

# TRANSITION TO DEEP EXPLORATION

Below each bubble below to express your team has met all the goals of the phase of the challenge and are ready to move into the next phase. Circle the description that most represents your team's progress. For the checklist criteria at the bottom of the bubble, consider a team's process you might progress:

- Plot progress on the page you've been working on.

- Plot progress on the page you've been working on.

- Plot progress on the page you've been working on.

- Plot progress on the page you've been working on.

- Plot progress on the page you've been working on.

- Plot progress on the page you've been working on.

- Plot progress on the page you've been working on.

- Plot progress on the page you've been working on.

- Plot progress on the page you've been working on.

- Plot progress on the page you've been working on.

- Plot progress on the page you've been working on.

- Plot progress on the page you've been working on.

- Plot progress on the page you've been working on.
**DEFINE TRANSITION REFLECTION**

**REFLECTION ON PROCESS**

Independently, reflect on how you team is working together by answering the questions below. Then share your reflections as a team.

- What is the most important insight you gained during this phase of the design challenge?

- About which part of this phase of the design challenge do you feel most confident?

- About which part of this phase of the design challenge do you feel least confident? What are you going to do to improve your confidence about this phase?

- What was the most difficult part to collaborate on for your team?

- How can you improve how your team works together in the next phase?

**SHAREOUT OF PROCESS**

When you have completed this reflection and are ready to transition to the next phase of the design challenge, share with your facilitator, school leader(s) or colleague to get feedback on your progress thus far.

They can use the feedback framework of I like, I wish, I wonder to provide helpful ideas for where you can improve and where your work is strongest. Write down the feedback you receive below.

**SHARE OUT OF PROCESS**

When you have completed this reflection and are ready to transition to the next phase of the design challenge, share with your facilitator, school leader(s) or colleague to get feedback on your progress thus far.

They can use the feedback framework of I like, I wish, I wonder to provide helpful ideas for where you can improve and where your work is strongest. Write down the feedback you receive below.
Overview of Generate Solutions Phase:
The worksheet in the Generate Solutions phase of the process is focused on generating as many solutions as possible. Once many solutions have been generated, members of your team will work on four to five more formal prototyping.

Objectives of Generate Solutions Phase:
The goal of this phase is to use the IF/Then and HMW questions to generate many solutions. By generating lots of solutions, you will get to innovative solutions. From there, the team will use criteria to select ideas that have clustered into themes.

At the end of this phase, all team members should be clear on 1-4 ideas they are interested in prototyping.

Mindsets of Generate Solutions Phase:
- Many ideas lead to good ideas
- Better judgment and criticism of ideas
- Idea generation is not the time for evaluating ideas
- Brainstorming is a collaborative team activity
- Allow yourself to think of wild ideas
- See opportunities in constraints
- This phase is the time to solve the problem.

Generate Workshop Tools:

1. Prepare to Brainstorm
   WHAT IS THE TOOL?
   Prepare to Brainstorm is a worksheet designed to help your team prepare to facilitate a collaborative brainstorm.
   WHAT IS YOUR GOAL?
   This tool can help you make meaning of the qualitative data you gather through your design research activities.

2. Solo Brainstorm
   WHAT IS THE TOOL?
   Solo Brainstorming is a worksheet designed to help you generate ideas on your own before you generate them as a group.
   WHAT IS YOUR GOAL?
   By first generating ideas on your own, this will help you share and build ideas as a team.

3. Group Brainstorm
   WHAT IS THE TOOL?
   Group Brainstorm is an activity where members of your team capture ideas generated during your brainstorm.
   WHAT IS YOUR GOAL?
   Brainstorming as a team helps generate lots of solutions from different perspectives. It also helps you build upon the ideas of others to get to more innovative solutions.

4. Idea Selection
   WHAT IS THE TOOL?
   Idea Selection is a worksheet designed to help you select the ideas you want to advance using specific criteria.
   WHAT IS YOUR GOAL?
   As a team, you will need to identify one to four ideas you are planning to continue to develop through prototyping. The activity helps you reflect on which ideas are most likely to address the problem you are exploring.
Prepare to Brainstorm

Materials Needed:
- 3 HMW questions, each written on the top of a separate piece of chart paper
- Wall space for 3 pieces of chart paper
- A timer
- 1 pad of sticky notes per person
- 1 marker (sharpie) per person
- Creative and collaborative mindset

Brainstorming Instructions:

1. Pre-Brainstorm
   - Set the Space: Ask team, choose your three best HMW questions you created from the previous section.
   - Revitalize each one on a separate piece of chart paper to be enough for everyone to see them at a glance. Stick them on the wall.
   - Slick the pieces of chart paper on the wall so everyone on your team can view it.
   - Make sure everyone in the team has a pen and sticky notes.
   - Set the timer for ten minutes.
   - If you are not able to hang chart paper on the wall, use the Group Brainstorm page further in this section of the tool.

2. Conduct a Group Brainstorm
   - Start with the first HMW question.
   - How can you tackle this one, or what are problems with this one?
   - Have everyone gather around and one sheet of chart paper — you will only brainstorm on one question at a time.
   - Have a member of the team read the HMW question out loud and make sure that everyone understands the question.
   - Start the timer for ten minutes.
   - Everyone writes together to generate as many ideas as possible.
   - Follow the Rules of Brainstorming above.
   - For each idea that is generated, the team leader who generated it should write it down (one per pad) and turn it to the chart paper while also saying aloud. Don’t explain or debate — just write.
   - If you’re running out of ideas, write creatively prompts below.
   - After the timer goes off, switch to another HMW question and repeat these steps.

3. Post-Brainstorm
   - Sort & Select
     - Once you have completed three rounds of brainstorming (one for each HMW question), take a few minutes and sort the ideas you have generated into groups. The HMW questions don’t matter any more. You can group all ideas from question 1 together, then question 2, then question 3.
     - Look for patterns and similar ideas to group. Think about kinds of ideas: events, people, format (i.e. game, the internet). Are you looking for thematic similarity or what you’ll need rather than what you’ll need when?
     - Once the ideas have been sorted, give everyone three circular stickers. Each sticker represents a vote. Each person gets three votes based on the following criteria:
       - Most likely to delight the stakeholders (one vote)
       - Most likely to improve stakeholders’ experience (one vote)
       - Most likely to create learning opportunities (one vote)
     - Each person sticks their circular sticker on a specific post-it, not part of a group.
     - Once everyone has voted, take a step back and identify the three ideas with the highest number of stickers.
     - Take down those three ideas as well as the post-it that are clustered around those ideas. You will transfer these ideas into the Idea Selection page of the toolkit.

Creativity Prompts:
- How would a sports coach solve this problem?
- How would a superhero solve this problem?
- Draw inspiration from a favorite or celebration.
- How would you solve the problem if you had a whiteboard?
- How would you solve the problem tomorrow?
Solo Brainstorm

Instructions: Before you begin brainstorming as a team, try to generate a few ideas on your own using the HMW method, alone. Don’t forget the need of brainstorming to be an active part of the HMW method. On a blank sheet of paper, write down your three ideas and then come up with ideas. Once you have an idea, sketch it on the box below. Sketching does not need to be a masterpiece, just a quick representation of your idea. Then give your idea a title and describe it in detail. When you start your brainstorm as a team, be each person share their first three ideas in order to spark new thinking for the group.

RULES OF BRAINSTORMING...
• Generate as many ideas as possible - go for quantity over quality at this point in the process
• Encourage out of the box, wild ideas that have never been tried before
• Build on ideas of others - say “yes, and!”
• Don’t be negative about other people’s ideas - or your own!

1 HMW...
HELP JOE TO UNDERSTAND THE CONNECTIONS BETWEEN WHAT HE'S STUDYING TODAY AND HIS FUTURE?

SKETCH YOUR IDEA.

2 HMW...
GIVE JOE MORE CHOICES ABOUT WHAT HE'S STUDYING?

SKETCH YOUR IDEA.

3 HMW...
ELEVATE STUDENT VOICES ABOUT WHAT THEY WANT TO STUDY

SKETCH YOUR IDEA.

DESCRIBE YOUR IDEA IN 1-2 SENTENCES.
Who, what, where, when, why.

CREATE A CLASS WHERE JOE GETS TO TRY THREE DIFFERENT PROJECTS TO BASE ON HIS INTERESTS.

CREATE AN INTEREST SURVEY THAT STUDENTS COMPLETE SO THAT TEACHERS KNOW THEIR INTERESTS.

SHARED JOE’S方も知り、何かが起こっている。
Group Brainstorm #1

Indicate on this page to capture all the ideas you generate for your first HMW question (if you do not have wall space). Write the HMW question at the top of the box. Set the timer for 10 minutes and generate as many ideas as possible. Don’t forget the Rules of Brainstorming!

### HOW MIGHT WE EMPOWER JOE TO ADVOCATE FOR WHAT HE NEEDS TO LEARN FOR HIS FUTURE?

#### JOE SETS GOALS THAT HE SHARES WITH HIS TEACHER

- Joe has a personal vision statement for his future.

#### JOE HAS A PERSONAL VISION STATEMENT FOR HIS FUTURE

- Joe has an apprenticeship after school.

### RULES OF BRAINSTORMING...

- Generate as many ideas as possible - go for quantity over quality at this point in the process.
- Encourage out of the box, wild ideas that have never been tried before.
- Bold on the ideas of others - say, “Yes, and!”
- Don’t be negative about other people’s ideas - or your own!
- Let go of your expertise - even if you have already tried something, maybe it would be worth trying again.
- Stay focused and work as a team.
- Show and say your idea so that your teammates can remember it and use it as inspiration.

#### JOE HAS A LIST OF BIG IDEAS HE WANTS TO LEARN AND HIS TEACHER RESPONDS TO

- Joe and his teacher meet one on one to discuss his goals.

#### JOE AND HIS TEACHER MEET ONE ON ONE TO DISCUSS HIS GOALS

- Joe evaluates his classes based on how connected to his future he feels they are.

#### JOE HAS A PORTFOLIO OF SKILLS CONNECTED TO HIS FUTURE

- Joe has parents who are conference with his teacher.

### RULES OF BRAINSTORMING...

- Generate as many ideas as possible - go for quantity over quality at this point in the process.
- Encourage out of the box, wild ideas that have never been tried before.
- Bold on the ideas of others - say, “Yes, and!”
- Don’t be negative about other people’s ideas - or your own!
- Let go of your expertise - even if you have already tried something, maybe it would be worth trying again.
- Stay focused and work as a team.
- Show and say your idea so that your teammates can remember it and use it as inspiration.
Instructions: Use this page to capture all the ideas you generate for your first HMW question (if you do not have wall space). Write the HMW question at the top of the box. Set the timer for 10 minutes and generate as many ideas as possible. Don’t forget the Rules of Brainstorming!

- Generate as many ideas as possible - go for quantity over quality at this point in the process
- Encourage out of the box, wild ideas that have never been tried before
- Build on the ideas of others - say, “Yes, and!”
- Don’t be negative about other people’s ideas - or your own!
- Let go of your expertise - even if you have already tried something, maybe it would be worth trying again
- Stay focused and work as a team
- Show and say your idea so that your teammates can remember it and use it as inspiration
Idea Selection

**Most Likely to Solve the Problem:**

**IDEA:** Describe your idea. What problem will your idea solve? Why does this matter? What will you need in order to implement this idea? (space, role, events, time, policy, communication, objects, etc.)

**Why do you think this idea will delight the stakeholders?**

**Why do you think this idea will solve the need you identified in your PFD?**

**Most Likely to Succeed at Closing Learning Gaps:**

**IDEA:** Describe your idea. Why will you need in order to implement this idea? (space, role, events, time, policy, communication, objects, etc.)

**Why do you think this idea will improve holistic learning outcomes?**

**Why do you think this idea will solve the need you identified in your PFD?**

**Most Likely to Create Opportunities:**

**IDEA:** Describe your idea. What problem will your idea solve? Why does this matter? What will you need in order to implement this idea? (space, role, events, time, policy, communication, objects, etc.)

**Why do you think this idea will create learning opportunities?**

**Why do you think this idea will solve the need you identified in your PFD?**

**IDEA:** Describe your idea. What problem will your idea solve? Why does this matter? What will you need in order to implement this idea? (space, role, events, time, policy, communication, objects, etc.)

**Why do you think this idea will delight the stakeholders?**

**Why do you think this idea will solve the need you identified in your PFD?**

**IDEA:** Describe your idea. What problem will your idea solve? Why does this matter? What will you need in order to implement this idea? (space, role, events, time, policy, communication, objects, etc.)

**Why do you think this idea will create learning opportunities?**

**Why do you think this idea will solve the need you identified in your PFD?**
1. **Brainstorming**

   - What are the three most exciting ideas that were generated?
   - Most likely to delight the stakeholder:
     - 
   - Most likely to succeed at closing learning gaps:
     - 
   - Most likely to create learning opportunities:
     - 

2. **Selection**

   - What are the three ideas you selected?
   - Most likely to delight the stakeholder:
     - 
   - Most likely to succeed at closing learning gaps:
     - 
   - Most likely to create learning opportunities:
     - 

3. **Specification**

   - How does your team’s idea relate to improving the holistic learning outcomes for your students?

**TRANSITION SUMMARY**

**TEAM ALIGNMENT**

In order to seek alignment as a team, share each of your summary pages with the team. Let each person read their summary response without interruption or comment from team members. After all team members have read their summaries, ask questions to gain understanding. To guide your discussion, let one person ask...

**RESULTS/MOVING TO THE NEXT PHASE**

Use the rubric below to assess your team’s next step all the goals of the phase of the process and are ready to move into the next phase. Circle the description that most represents your team’s progress.

- Not ready
- Ready with hesitation
- Ready with confidence

**HOLISTIC LEARNING OUTCOMES**

**Core Academic Proficiencies**
- Numeracy & Mathematics
- Applied Academic Proficiencies
  - Science
  - Health & Nutrition
  - Arts & Culture
  - Digital literacy, technology & media

**Additional Proficiencies**
- Being Our Best (the individual learner)
- Self-awareness
- Self-regulation
- Resilience
- Taking responsibility
- Critical thinking
- Creative learning

**Working With Others**
- Collaboration
- Communication
- Open-mindedness
- Empathy
- Relationship building
- Resilience
- Leadership

**Improving Our World**
- Problem-solving
- Critical engagement
- Entrepreneurship
- Respect for diversity
- Respect for the Environment
GENERATE TRANSITION REFLECTION

**Reflection on Process**
Independently, reflect on how your team is working together by answering the questions below. Then share your reflections as a team:

- What is the most important insight you gained during this phase of the design challenge?

- About which part of this phase of the design challenge do you feel most confident?

- About which part of this phase of the design challenge do you feel least confident? What is your team going to do to improve your confidence about this phase?

- What was the most difficult part to collaborate on for your team?

- How can you improve how your team works together in the next phase?

**Share Out of Process**
When you have completed the reflection and are ready to transition to the next phase of the design challenge, share your reflections with colleagues to get feedback on your progress thus far. They can use the feedback framework of I like, I wish, I wonder to provide helpful ideas for where you can improve and where your work is strongest. Write down the feedback you received below.

---

**SCHOOLS 2030 HUMAN-CENTERED DESIGN TOOLKIT**
MAKE INTRODUCTION

OVERVIEW OF MAKE YOUR PROTOTYPE PHASE

The proto-phase in the Make Your Prototype phase is designed for you to work with your team to create models of your ideas to test assumptions and make your ideas real. This phase is intended to assist teams, either specific or mixed, to develop a concept and build a prototype of it, which is a small-scale sample of the proposed solution. These prototypes are designed to be done in-situ based teams or with other schools.

The phase of the design challenge will include combining ideas into bigger concepts, embedding your ideas into teams, and reflecting on your solution, sketching out additional ideas and designing a prototype designed to test these assumptions.

OBJECTIVES OF MAKE YOUR PROTOTYPE PHASE

The proto-phase of the Make Your Prototype phase is designed to get your design team aligned around what assumptions you are making about your designs and how you are going to solve your stakeholders’ problem or meet your GOAL? or IS?

MINDSETS OF MAKE YOUR PROTOTYPE PHASE

- Make: Iterative innovation.
- Design: Building ideas.
- Prototype: Testing ideas.
- Test: Learning from failure.

TEAM WORKSHOP TOOLS

1. Combine Ideas

WHAT IS THIS TOOL?
Combine Ideas is a worksheet designed to help identify ideas you’ve generated in your brainstorming session or add additional ideas.

WHAT IS YOUR GOAL?
This phase is focused on combining ideas into a broader concept.

#1 Combine Ideas

- Start: 30 minutes to cluster and select, 15 minutes to combine

2. Building Blocks

WHAT IS THIS TOOL?
Building Blocks is a worksheet designed to help you identify all the elements of your idea that need to be developed.

WHAT IS YOUR GOAL?
Your concept is more complex than a single part. This tool will help you develop your concept more fully by identifying all the necessary elements.

#2 Building Blocks

- Start: 30 minutes

3. Storyboard Your Idea

WHAT IS THIS TOOL?
Storyboard Your Idea is a worksheet designed to help you think through your ideas in terms of a timeline. What happens at the beginning, middle, and end?

WHAT IS YOUR GOAL?
By thinking through your idea is a timeline, you will be able to further clarify your assumptions and generate new assumptions as well.

#3 Storyboard Your Idea

- Start: 15 minutes

4. Design a Prototype

WHAT IS THIS TOOL?
Design a Prototype is a worksheet designed to help your team design low-resolution prototypes to test the assumptions you are making about why these ideas will solve your stakeholders’ problem or meet your GOAL? or IS?

WHAT IS YOUR GOAL?
Your assumptions, the ideas you generate are full of assumptions about why these ideas will solve your stakeholders’ problem or meet your GOAL? or IS?

#4 Design a Prototype

- Start: 45 minutes

5. Tips for Designing & Testing a Prototype

WHAT IS THIS TOOL?
Tips for Designing & Testing a Prototype is a worksheet designed to help your team prepare to design and test the assumptions you are making about why these ideas will meet the needs of your stakeholders.

WHAT IS YOUR GOAL?
Your assumptions, the ideas you generate are full of assumptions about why these ideas will solve your stakeholders’ problem or fit their need.

#5 Tips for Designing & Testing a Prototype

- Start: 15 minutes

OUTCOMES

- Digital literacy, technology & humanities
- Science
- Humanities
- Leadership
- Collaboration
- Open-mindedness
- Empathy
- Relationship building
- Critical thinking
- Decision-making
- Reflection
- Entrepreneurship
- Respect for diversity
- Respect for the Environment

Advice from成功者

- Respect for the Environment
- Entrepreneurship
- Open-mindedness
- Critical thinking
- Reflection
- Respect for Diversity
- Respect for the individual learner
- Self-awareness
- Self-efficacy
- Resiliency
- Taking responsibility
- Ethical decision-making
- Creativity
- Critical thinking

Working With Others

- Collaboration
- Open-mindedness
- Empathy
- Leadership
Select multiple ideas that you generated that you want to combine into single solution.

JOE GETS A PAID JOB
JOE HAS A MENTOR
JOE LEARNS ABOUT NEW CAREERS

30 minutes to cluster and select, 15 minutes to combine.

Select multiple ideas that you generated that you want to combine into single solution.

30 minutes to cluster and select, 15 minutes to combine.

Rewrite your new ideas in the form of a newspaper headline.

AFTER SCHOOL CAREER EXPLORATION PROGRAM

Rewrite your new ideas in the form of a newspaper headline.

JOE HAS AN APPRENTICESHIP AFTER SCHOOL

Instructions: First your group needs to select the most promising ideas from all the ideas selected in previous. Next, let’s look at all the similar ideas you generated during the entire brainstorm. Review these ideas and look for any related ideas that could be combined together to support the idea you have selected. After you have selected all the ideas you want to combine, rewrite a new post-it that headlines the new, bigger idea.
Building Blocks

Instructions: Now that you’ve got a big idea from your brainstorm, let’s expand upon it. Below are nine categories to help you think about the variety of elements that will make up your solution. Deepen and add detail. After you’ve expanded the idea, reflect on the assumptions you made in your planning about why this solution is going to solve the problem.

Events
What times when a group of people convene for a specific purpose might need to be created?

Recruitment Event for Students and Parents to Generate Interest in the Program

Roles
What specific behaviors or actions that happen for each time a specific moment might need to be created?

Time
How might the allocation of time need to change for this idea?

Policy
What policies would need to be set or created?

Communication
What new forms of communication will need to take place?

Messages will be sent home about what students are learning in the program

Assumptions
What beliefs do you have about why this idea will meet your stakeholders’ needs? What the students required positive? Why? Will the identified approach work?

Budget
How might money need to be allocated for this idea?

Space
How might new spaces need to be used or created for this idea?

Rules
What roles might need to be created for this idea?

Objects/products/tools
What new artifacts or objects might need to be created for this idea?

Joe is interested in an after school program

Joe has career interests he can share with the program manager?

If Joe participates in an Apprenticeship He will try new Self-Identity?

An Apprenticeship will help Joe make transitions to his future?

A Program Manager will be hired to recruit mentors and Apprenticeships, etc.

Events
What times when a group of people convene for a specific purpose might need to be created?

Recruitment Event for Students and Parents to Generate Interest in the Program

Roles
What specific behaviors or actions that happen for each time a specific moment might need to be created?

Time
How might the allocation of time need to change for this idea?

Policy
What policies would need to be set or created?

Communication
What new forms of communication will need to take place?

Messages will be sent home about what students are learning in the program

Assumptions
What beliefs do you have about why this idea will meet your stakeholders’ needs? What the students required positive? Why? Will the identified approach work?

Budget
How might money need to be allocated for this idea?

Space
How might new spaces need to be used or created for this idea?

Rules
What roles might need to be created for this idea?

Objects/products/tools
What new artifacts or objects might need to be created for this idea?
Instructions: Draw a storyboard that maps out the experience you are hoping to create for your stakeholder. Take the assumptions you generated in the last exercise and match them to the phases of the experience that is most relevant. Generate new assumptions as well.

**Storyboard Your Idea**

**Pre-Experience**

Joe and his parents attend a recruitment event. Joe's parents sign him up for the program.

**Assumptions:**
- Joe’s parents will be able to attend a recruitment event.
- Joe is interested in an after-school program.

**During Experience, Phase 1**

The kickoff of the program happens after school. Students come to get oriented to the program.

**Assumptions:**
- Joe is able to attend apprenticeship meetings after school.
- Joe has career interests he can share with the program manager.

**During Experience, Phase 2**

Joe meets his mentor for the first time and goes to his mentor's office.

**Assumptions:**
- Joe will connect with an adult with shared interests.
- Joe will open up about his goals.

**During Experience, Phase 3**

Joe learns from his mentor about the skills required for the job.

**Assumptions:**
- Apprenticeship will help Joe make connections to his future.

**Post-Experience**

At the end of the program, Joe reflects and shares about what he learned.

**Assumptions:**
- Joe will participate in an apprenticeship.
- Joe will experience self-efficacy.

**Welcome Experience**

The kickoff of the program happens after school. Students come to get oriented to the program.

**Assumptions:**
- Joe is able to attend apprenticeship meetings after school.
- Joe has career interests he can share with the program manager.

**During Experience, Phase 1**

Joe learns from his mentor about the skills required for the job.

**Assumptions:**
- Apprenticeship will help Joe make connections to his future.

**Post-Experience**

At the end of the program, Joe reflects and shares about what he learned.

**Assumptions:**
- Joe will participate in an apprenticeship.
- Joe will experience self-efficacy.
Design a Prototype

ASSUMPTIONS:
JOE IS INTERESTED IN AN AFTER SCHOOL PROGRAM.

PROTOTYPE 1: WHAT WILL YOU DO?
HOLD A SMALL AFTER SCHOOL CAREER FAIR AND Invite JOE TO ATTEND.

What are you trying to learn?
How will you make sense of what happened?

ASSUMPTIONS:
JOE HAS CAREER INTERESTS HE SHARES WITH THE PROGRAM MANAGER.

PROTOTYPE 2: WHAT WILL YOU DO?
What are you trying to learn?
How will you make sense of what happened?

ASSUMPTIONS:

PROTOTYPE 3: WHAT WILL YOU DO?
What are you trying to learn?
How will you make sense of what happened?

PILOT: Once you have completed your prototypes, you will combine ideas and prototypes in a test environment. We will focus on this during the implementation phase.

ASSUMPTIONS:

Instructions: Now that you have developed your ideas, it is time to get ready to test it with stakeholders. Before we implement an idea, we always test it through small tests (“prototypes”) designed to test our assumptions about why the stakeholders will like the idea and why the idea is going to meet their needs. You will develop prototype(s) to test your assumptions. These prototypes are small-scale (they should involve a small number of students or other stakeholders), and require only a short amount of time, both to prepare and implement.

Design a Prototype

ASSUMPTIONS:

PROTOTYPE 1: WHAT WILL YOU DO?
What are you trying to learn?
How will you make sense of what happened?

ASSUMPTIONS:

PROTOTYPE 2: WHAT WILL YOU DO?
What are you trying to learn?
How will you make sense of what happened?

ASSUMPTIONS:

PROTOTYPE 3: WHAT WILL YOU DO?
What are you trying to learn?
How will you make sense of what happened?

PILOT: Once you have completed your prototypes, you will combine ideas and prototypes in a test environment. We will focus on this during the implementation phase.

ASSUMPTIONS:

Instructions: Now that you have developed your ideas, it is time to get ready to test it with stakeholders. Before we implement an idea, we always test it through small tests (“prototypes”) designed to test our assumptions about why the stakeholders will like the idea and why the idea is going to meet their needs. You will develop prototype(s) to test your assumptions. These prototypes are small-scale (they should involve a small number of students or other stakeholders), and require only a short amount of time, both to prepare and implement.
1 DESIGNING A PROTOTYPE

- Prototypes are quick experiments designed to test the assumptions behind the ideas you generated. Your goal is to learn more about your ideas not to validate your ideas as correct.
- Good prototypes ask specific questions and create activities to help you find the answers to those questions.
- Good prototypes do not require a lot of time investment to prepare. When designing your prototypes, think of all the ways that you can test your assumptions without spending a lot of time planning and preparing.
- Good prototypes do not require a lot of money. When designing your prototypes, think of all the ways you can test your assumptions without spending a lot of money or using a lot of resources.
- Good prototypes are small. Here's an example: If you want to test a prototype of a 100 person event, start by testing a party for ten. Eventually you will need to make your prototypes closer to the size of the full implementation of the idea, but in the beginning test those assumptions with a small group. If you want to create a solution for an entire grade level, start with engaging three or four students. Then test the solution with a whole class. Then move to testing the solution with the whole school.

- By starting small to test assumptions and get information about whether your idea will meet the needs of the stakeholders, you are going outside mind to test an idea that may not meet major changes before you proceed. When you launch an initiative at scale, you have seen

- Good prototypes should not feel risky. By testing small, you are engaging a group of trusted individuals to give you honest feedback before you scale your idea to the whole group.
- Good prototypes take place in the real world. Instead of making up an idea, take your small scale prototype to real stakeholders to try out.
- Prototyping is different than piloting an idea. Prototyping is about answering questions about the idea itself and how it will impact the stakeholders. Piloting is about figuring out how an idea will work once it is at scale.

2 TESTING A PROTOTYPE

- Be sure to focus your prototype around the question you are trying to answer.
- Think carefully about who will test your prototype. Talk to the stakeholder groups you need to engage. Think about those stakeholders who are underrepresented.
- Use this time in this phase to make a plan for what will happen, what you need and who will help you test your prototype.
- After you test your prototype, be sure to take time to interview your participants to see what they liked, what they didn't like and how the experience made them feel.
- Ask them to think about the prototype as a solution that you implement in the future.
- Would they enjoy participating? Why or why not?
- Would this solution solve a problem they face? Why or why not?
- Would this solution meet a need they have? Why or why not?
- Be sure to ask them if there is anything else they would like to share.
- Based on what you learn from your participants, make iterations to your prototype and try again.

Prototyping should be a rapid process of quick, low investment experiments.

3 REFLECTING AFTER THE TEST

- After you have completed the test of your prototypes and have interviewed the participants, be sure to take some time to reflect and analyze the prototypes of your idea.
- What worked about the prototype? What will the new things grow into a full solution?
- What didn't work about your prototype? What will you do to make changes?
- What new questions arise for you during the test of your prototype? What will you do to learn the answers to those questions?
- What ideas came up for you as you were testing your prototype and talking to your stakeholders? How might you incorporate these ideas into the next iteration of your prototype?
- Think about how your prototype will meet the needs of your stakeholders. Think back to your Point of View statement and reflect on how your idea will meet this need you identified.
### MAKE TRANSITION SUMMARY

#### MAKE 2.

1. **Launch Summary**
   - Combine generated? (see Prototype)
   - Prototype completed? (Storyboard)
   - Prototype? (Storyboard)

#### MAKE 3.

2. **Explore Prototype**
   - What assumptions are these?
   - What are the three most important moments in the experience your storyboard created?

#### MAKE 4.

3. **Design Build/Build**
   - What are the two assumptions that your team feels the least comfortable with?
   - What are you going to learn?
   - How will you make sense of what happened?

4. **Build/Build/Build**
   - How do you think your team's prototype will lead you to a solution that will improve the holistic learning outcomes for your students?

### MAKE TRANSITION ALIGNMENT

#### TEAM ALIGNMENT

In order to seek alignment as a team, share each of your summary pages with the questions below to narrow your team’s focus so that you can move on to the next phase. Each person reads their summary response without interruption or comment from the team. If there are differing views and ideas from team members, ask questions to gain understanding. Yes, there will be a no. But what makes that one more about that?

- Are you ready to move on to the next phase?
- Do you want to use all the assumptions?
- Are you ready to move on to the next phase?
- Can you see the holistic learning outcomes in all of the rubric?

### CRITERIA FORMING TO THE NEXT PHASE

Use the rubric below to assess your team’s work as the phase of the challenge and readiness to move into the next phase. Circle the description that most represents your team’s responses. For the Roger Blaikie criteria all at the bottom of the rubric, consider as a team the progress you’re making.

- Not ready
- Ready with hesitation
- Ready with confidence

#### TEAM ALIGNMENT TIPS

- Tell & testing desiring
- Designing a prototype
- Testing the design
- Building a prototype

#### TEAM ALIGNMENT CRITERIA

- Leadership
- Relationship building
- Empathy
- Creativity
- Resilience
- Digital literacy, technology & media
- Humanities
- Communication
- Open-mindedness
- Empathy
- Relationship building
- Resilience
- Leadership

#### REACHING OUR WORLD (our community/our world)

- Problem solving
- Collaboration
- Critical thinking
-逆势
- Relate to the Environment

#### BEING OURSELVES (the individual learners)

- Self-awareness
- Application of knowledge to making decisions
- Adaptability
- Critical thinking

#### BEING OUR BEST (our class/school)

- Critical thinking
- Communication
- Open-mindedness
- Empathy
- Relationship building
- Resilience
- Leadership

#### BEING OUR WORLD (our community/our world)

- Problem solving
- Collaboration
- Critical thinking

### TRANSITION TO LEARNING OUTCOMES

- Applied Academic Proficiencies
- Literacy
- Numeral & Mathematics
- Arts & culture
- Digital literacy, technology & media
- Health & Nutrition
- Learning How
- Outcomes
MAKE TRANSITION REFLECTION

**MAKE TRANSITION REACTION**

Independently, reflect on how your team is working together by answering the questions below. Then share your reflections as a team:

- What is the most important insight you gained during this phase of the design challenge?

- About which part of this phase of the design challenge do you feel most confident?

- About which part of this phase of the design challenge do you feel least confident? What is your team going to do to improve your confidence about this phase?

- What was the most difficult part to collaborate on for your team?

- How can you improve how your team works together in the next phase?

**SHARE OUT OF PROCESS**

When you have completed this reflection and are ready to transition to the next phase of the design challenge, share with your facilitator, school leader and/or colleagues to get feedback on your progress thus far.

They can use the feedback framework of I like, I wish, I wonder to provide helpful ideas for where you can improve and where your work is strongest. Write down the feedback you receive below.

SCHOOLS 2030 HUMAN-CENTERED DESIGN TOOLKIT
**Test Introduction**

**Overview of Testing Your Prototype Phase**

The workshop is the Test Your Prototype phase designed to help you construct tangible forms of your solution. These tasks are intended to elicit feedback from stakeholders on the prototype, be open to their assumptions embedded in the task. The work of these workshops can be done collaboratively with school-based teams or other schools. Prototyping will be conducted by individual educators. This phase of the design challenge includes preparing you to test your prototype and reflect on what you learned. This prototype is your tool to learn about the stakeholder’s needs and determine the next steps.

**Objectives of Testing Your Prototype Phase**

The goal of this phase is to test the prototype developed by stakeholders to get authentic feedback. At the end of this phase, you should be clear about whether the solution you have designed has the potential to meet the needs you identified in your PDA statement. You should also have a clearer awareness of how you want to iterate your next prototype.

**Minds of Testing Your Prototype Phase**

- Stay optimistic that you can solve the problem.
- Prototype early and often in order to learn about your idea.
- Start small to make big change.
- Show don’t tell.
- Many cycles of prototyping are necessary to develop an idea.
- Feedback is a gift to improve your ideas.

**Team Workshops**

**Phase 1: Prototype**
- 30 minutes to prepare.
- 2-3 hours to test prototype.

**What is This Tool?**
- The Test and Prototype workshop is designed to help you plan the steps of testing your prototype.

**What is Your Goal?**
- Testing prototypes requires a lot of planning. This tool helps you think through these logistics.

**Team Workshops**

**Phase 2: Evaluation**
- 30-45 minutes.

**What is This Tool?**
- Idea Evaluation is a worksheet designed to help you evaluate your prototype based on your stakeholder testing.

**What is Your Goal?**
- Always continue to work through the design challenge. It is important to continue to refine your original stakeholders’ PDA and ask how well your solution will improve the holistic learning outcomes for students.

**Team Workshops**

**Phase 3: Evaluating Prototypes to Get to Next Steps**
- 20-45 minutes.

**What is This Tool?**
- Evaluating Prototypes to Get to Next Steps is a worksheet designed to help you determine the next steps of your team and how your best next steps are in terms of learning on your concept.

**What is Your Goal?**
- When you have completed this tool, you will have good insight into what the best next steps are for the next location of your ideas.

**Team Workshops**

**Phase 4: Reflect**
- 45-60 minutes.

**What is This Tool?**
- What’s the Real Reflection worksheet asks you to reflect on what assumptions you have made about why your idea will solve your stakeholders’ problems. This tool also asks you to continue to iterate based on what you learn from your testing.

**What is Your Goal?**
- This phase of the prototype will ask you to reflect on your design change and the next steps you should be taking.

**Team Workshops**

**Phase 5: Next Steps**
- 20-45 minutes.

**What is This Tool?**
- The What’s Next worksheet asks you to reflect on where are you on your design change and what your next steps should be.

**What is Your Goal?**
- The prototype design is not a linear process. You may find that you need to return to the Prototype phase of the process or that you need to make adjustments. It is also possible for you to choose to continue to develop your concept through prototyping.
<table>
<thead>
<tr>
<th>Test a Prototype</th>
<th>Test a Prototype</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. WHAT ASSUMPTIONS WILL YOU TEST WITH YOUR PROTOTYPE?</strong></td>
<td><strong>1. WHAT ASSUMPTIONS WILL YOU TEST WITH YOUR PROTOTYPE?</strong></td>
</tr>
<tr>
<td>JOE IS INTERESTED IN AN AFTER SCHOOL PROGRAM.</td>
<td>JOE HAS CAREER INTERESTS HE DISCUSSES WITH THE PROGRAM MANAGER.</td>
</tr>
<tr>
<td>JOE &amp; HIS CAREER INTERESTS HE DISCUSSES WITH THE PROGRAM MANAGER.</td>
<td></td>
</tr>
<tr>
<td><strong>2. GENERATE A LIST OF PEOPLE WHO YOU WOULD LIKE TO HAVE PARTICIPATE IN YOUR PROTOTYPE.</strong></td>
<td><strong>2. GENERATE A LIST OF PEOPLE WHO YOU WOULD LIKE TO HAVE PARTICIPATE IN YOUR PROTOTYPE.</strong></td>
</tr>
<tr>
<td>JOE SEES OTHER MIDDLE SCHOOL STUDENTS.</td>
<td></td>
</tr>
<tr>
<td><strong>3. WHO MIGHT HELP YOU TEST THE PROTOTYPE?</strong></td>
<td><strong>3. WHO MIGHT HELP YOU TEST THE PROTOTYPE?</strong></td>
</tr>
<tr>
<td>THREE LOCAL BUSINESS LEADERS AND ANOTHER TEACHER</td>
<td></td>
</tr>
<tr>
<td><strong>4. WHERE WILL YOU TEST THE PROTOTYPE?</strong></td>
<td><strong>4. WHERE WILL YOU TEST THE PROTOTYPE?</strong></td>
</tr>
<tr>
<td>IN MY CLASSROOM</td>
<td></td>
</tr>
<tr>
<td><strong>5. HOW WILL YOU SET UP THE SPACE?</strong></td>
<td><strong>5. HOW WILL YOU SET UP THE SPACE?</strong></td>
</tr>
<tr>
<td>ALL THE CHAIRS IN A CIRCLE FACING EACH OTHER</td>
<td></td>
</tr>
<tr>
<td><strong>6. WHAT MATERIALS WILL YOU NEED?</strong></td>
<td><strong>6. WHAT MATERIALS WILL YOU NEED?</strong></td>
</tr>
<tr>
<td>A CAREER EXPLORATION GUIDE FOR STUDENTS TO TAKE NOTES</td>
<td></td>
</tr>
<tr>
<td><strong>7. ANYTHING ELSE YOU NEED TO PREPARE?</strong></td>
<td><strong>7. ANYTHING ELSE YOU NEED TO PREPARE?</strong></td>
</tr>
<tr>
<td>A CAREER EXPLORATION GUIDE FOR STUDENTS TO TAKE NOTES</td>
<td></td>
</tr>
<tr>
<td><strong>8. WHAT ARE THE STEPS THAT YOU NEED TO COMPLETE IN ORDER TO TEST YOUR PROTOTYPE?</strong></td>
<td><strong>8. WHAT ARE THE STEPS THAT YOU NEED TO COMPLETE IN ORDER TO TEST YOUR PROTOTYPE?</strong></td>
</tr>
<tr>
<td>1. CONTACT BUSINESS LEADERS</td>
<td>1. CONTACT BUSINESS LEADERS</td>
</tr>
<tr>
<td>2. INFORM PARENTS</td>
<td>2. INFORM PARENTS</td>
</tr>
<tr>
<td>3. INVITE STUDENTS</td>
<td>3. INVITE STUDENTS</td>
</tr>
<tr>
<td>4. MAKE CAREER EXPLORATION GUIDE</td>
<td>4. MAKE CAREER EXPLORATION GUIDE</td>
</tr>
<tr>
<td>5. SETUP ROOM</td>
<td>5. SETUP ROOM</td>
</tr>
<tr>
<td>6. HOLD EVENT</td>
<td>6. HOLD EVENT</td>
</tr>
<tr>
<td>7. DEBRIEF WITH STUDENTS ABOUT WHAT THEY LEARNED</td>
<td>7. DEBRIEF WITH STUDENTS ABOUT WHAT THEY LEARNED</td>
</tr>
<tr>
<td>8. SEND THANK YOU NOTES</td>
<td>8. SEND THANK YOU NOTES</td>
</tr>
</tbody>
</table>
Testing a Prototype Reflection

Instructions: First, identify the assumptions you have made about the person you will be testing your prototype on. Ask test questions that you will ask the person who is testing your prototype. Take notes on what you learn from that person.

1 ASSUMPTION
What is the assumption that this prototype is designed to test?

JOE HAS CAREER INTERESTS HE CAN SHARE WITH THE PROGRAM MANAGER.

WHAT QUESTIONS DO YOU WANT TO ASK THE PERSON WHO IS TESTING YOUR PROTOTYPE TO LEARN ABOUT THE ASSUMPTIONS YOU ARE TRYING TO TEST?

YOUR PROTOTYPE!

PROTOTYPE TESTING NOTES

What do you hear?
Write down specific quotations. Listen for stories, emotions, motivations and behaviors.
Listen for surprising or contradictory information.

JOE DOES HAVE A CAREER GOAL - HE WANTS TO BE A DOCTOR.

2 ASSUMPTION
What is the assumption that this prototype is designed to test?

WHAT QUESTIONS DO YOU WANT TO ASK THE PERSON WHO IS TESTING YOUR PROTOTYPE TO LEARN ABOUT THE ASSUMPTIONS YOU ARE TRYING TO TEST?

YOUR PROTOTYPE!

PROTOTYPE TESTING NOTES

What do you hear?
Write down specific quotations. Listen for stories, emotions, motivations and behaviors.
Listen for surprising or contradictory information.

JOE WAS ENGAGED WHEN HE WAS TALKING TO SCIENTIST WHO CAME AT THE CAREER FAIR.

Next, write down observations (sadness, excitement, joy) in the person’s body language and facial expressions.

Instructions: First, identify the assumptions you have made about the person you will be testing your prototype on. Ask test questions that you will ask the person who is testing your prototype. Take notes on what you learn from that person.

1 ASSUMPTION
What is the assumption that this prototype is designed to test?

WHAT QUESTIONS DO YOU WANT TO ASK THE PERSON WHO IS TESTING YOUR PROTOTYPE TO LEARN ABOUT THE ASSUMPTIONS YOU ARE TRYING TO TEST?

YOUR PROTOTYPE!

PROTOTYPE TESTING NOTES

What do you hear?
Write down specific quotations. Listen for stories, emotions, motivations and behaviors.
Listen for surprising or contradictory information.

What do you see?
Look for emotions (sadness, excitement, joy) in the person’s body language and facial expressions.

WHAT QUESTIONS DO YOU WANT TO ASK THE PERSON WHO IS TESTING YOUR PROTOTYPE TO LEARN ABOUT THE ASSUMPTIONS YOU ARE TRYING TO TEST?

YOUR PROTOTYPE!

PROTOTYPE TESTING NOTES

What do you hear?
Write down specific quotations. Listen for stories, emotions, motivations and behaviors.
Listen for surprising or contradictory information.

What do you see?
Look for emotions (sadness, excitement, joy) in the person’s body language and facial expressions.

2 ASSUMPTION
What is the assumption that this prototype is designed to test?

WHAT QUESTIONS DO YOU WANT TO ASK THE PERSON WHO IS TESTING YOUR PROTOTYPE TO LEARN ABOUT THE ASSUMPTIONS YOU ARE TRYING TO TEST?
Reflection

Instructions: Take a look at the notes you collected from testing your prototypes. Use the worksheet to organize your thoughts, reactions and questions. Use this tool that you would like to address as you create your next prototype.

LIKES
What did you see that is working well?

STUDENTS LIKED MEETING LOCAL BUSINESS LEADERS
STUDENTS LIKED MEETING PEOPLE WITH JOBS THEY ARE INTERESTED IN

MATCH STUDENTS BASED ON PERSONAL CONNECTION RATHER THAN CAREERS
HELP MENTORS BUILD SKILLS AROUND CONNECTING WITH YOUNG PEOPLE

CHANGES
What did you see that is not working well?

THE CONNECTION WITH THE ADULT WAS MORE IMPORTANT THAN THE CAREER MATCH

COULD WE CREATE A TRAINING FOR MENTORS?

QUESTIONS
What did you see that raised questions for you?

IDEAS
What ideas came to you as you observed?

PROTOTYPES
YOU LEARN?

EVALUATION
PROTOTYPES NEXT?

STUDENTS LIKED MEETING LOCAL BUSINESS LEADERS
STUDENTS LIKED MEETING PEOPLE WITH JOBS THEY ARE INTERESTED IN

MATCH STUDENTS BASED ON PERSONAL CONNECTION RATHER THAN CAREERS
HELP MENTORS BUILD SKILLS AROUND CONNECTING WITH YOUNG PEOPLE

+ △

ZAPP

WHAT DID STUDENTS THINK?

WHAT DID MENTORS THINK?

WHAT DID PARTICIPANTS THINK?

WHAT DID YOU THINK?

WHAT DID YOU LEARN?
What did you learn?

1. **ASSUMPTION**: What was the assumption that this prototype was designed to test?

**STUDENTS AND MENTORS NEED GAMES TO GET TO KNOW EACH OTHER**

**WHAT DID YOU LEARN?** What did you learn from your stakeholders about the assumption you tested?

**ACTIVITIES DID HELP THE STUDENTS AND MENTORS GET TO KNOW EACH OTHER**

**WHAT WILL YOU DO?** How will you iterate on your idea based on stakeholder feedback?

**ENSURE THERE ARE ALWAYS ACTIVITIES FOR THE STUDENTS AND MENTORS**

2. **ASSUMPTION**: What was the assumption that this prototype was designed to test?

**THERE WILL BE SPACE AT THE SCHOOL ON SATURDAYS**

**WHAT DID YOU LEARN?** What did you learn from your stakeholders about the assumption you tested?

**SATURDAYS WERE OKAY WITH THE SCHOOL BUT HARD FOR THE MENTORS**

**WHAT WILL YOU DO?** How will you iterate on your idea based on stakeholder feedback?

**TRY HAVING THESE MEETINGS AFTER SCHOOL AT THE MENTORS’ WORKPLACE**

What did you learn?  

1. **ASSUMPTION**: What was the assumption that this prototype was designed to test?

2. **ASSUMPTION**: What was the assumption that this prototype was designed to test?

**WHAT DID YOU LEARN?** What did you learn from your stakeholders about the assumption you tested?

**WHAT WILL YOU DO?** How will you iterate on your idea based on stakeholder feedback?
**Instructions:** Use the worksheet to reflect on how well your prototype met the needs of the stakeholder in relation to the scale of the intervention. Next, use the questions to reflect on how well your solution will increase learning outcomes for students.

1. After reflecting on the test of your prototype, how do you think your idea aligns with your POVs statement? Why?

   YES, I BELIEVE THE AFTER SCHOOL CAREER EXPLORATION PROGRAM WILL DIRECTLY HELP JOE CONNECT WHAT IS LEARNING TODAY WITH WHAT HE NEEDS FOR HIS FUTURE CAREER.

2. After reflecting on the test of your prototype, how well do you think your idea will improve the holistic learning outcomes for students? Why?

   I BELIEVE THE AFTER SCHOOL CAREER EXPLORATION PROGRAM WILL HELP STUDENTS TO DEVELOP CAREER GOALS FOR THEMSELVES WHICH WILL IN TURN HELP THEM TO ADVOCATE FOR THEIR GOALS AND BECOME MORE SELF-EFFICACIOUS.
Evaluating Prototypes to Get to Next Steps

Instructions: Use the worksheet to reflect on how well your ideas will improve the holistic learning outcomes for students across the school. Based on where you place your ideas, think about next steps.

1. How might we spread the impact? How might we disrupt the status quo?
2. How might we make it a policy?
3. How might we infuse this solution in every aspect of school?
4. How might we accelerate the impact? How might we amplify the impact?

Individual Impact

- Will increase learning outcomes
- Might not increase learning outcomes
- Might increase learning outcomes
- How might we disrupt the status quo?
- How might we simplify the impact?

Syndemic Impact

1. How might we spread the impact? How might we disrupt the status quo?
2. How might we make it a policy?
3. How might we infuse this solution in every aspect of school?
4. How might we accelerate the impact? How might we amplify the impact?

Individual Impact

- Will increase learning outcomes
- Might not increase learning outcomes
- Might increase learning outcomes
- How might we disrupt the status quo?
- How might we simplify the impact?
What's Next?

Instructions: Use this worksheet to reflect on where you are in the design challenge - what’s working, what’s not and how you feel about your project generally. Next, think through next steps you might take to advance your project.

REFLECTION GRID

TESTING PROTOTYPE REFLECTION TESTING PROTOTYPE REFLECTION

WHAT'S NEXT?

1. "I'm ready to implement!"

2. Why?

WE ARE NOT SURE THAT THIS CAREER EXPLORATION PROGRAM INCREASES STUDENT SELF EFFICACY AND ENGAGEMENT AT SCHOOL.

3. What should I do next?
   - Secondary research
   - Interview more people
   - Generate new ideas
   - Design & test more prototypes
   - Project planning
   - Other?

4. Why?

WE NEED TO CONTINUE TO PROTOTYPE TO ENSURE THAT WE ENSURE THAT THE AFTERSCHOOL PROGRAM INCREASES STUDENT'S SELF EFFICACY.

5. Make a recommendation for next steps for your team.

INTERVIEW STUDENTS WHO HAVE PARTICIPATE IN PROTOTYPES

CREATE 2-3 APPRENTICESHIP PROTOTYPES

DEBRIEF WITH PARTICIPATE IN THOSE PROTOTYPES

X "I'm still exploring."

"I'm stuck..."

"I'm ready to implement!"

"I'm still exploring."

"I'm stuck..."
TEST TRANSITION SUMMARY

# TEAM WORKSHOP TOOLS

## Idea Evaluation
After reflecting on how your prototype went, how do you think your idea aligns with your VOI statement? Why?

After reflecting on how your prototype went, how well do you think your class will improve the holistic learning outcomes for students? Why?

## # Evaluating Prototypes to Get to Next Steps

What is your evaluation of your prototype?

## What’s Next?
What is the best next step for your design work?

## #2 Testing Prototypes Reflection

What are the three most important things you learned from testing your prototype?

## #3 Reflection Grid

What are the most important insights that you identified from your reflection?

## #4 Reflection Grid

What are the most important insights that you identified from your reflection?

## INDIVIDUAL FIELDWORK TOOLS

# Testing Prototypes Reflection

What are the three most important things you learned from testing your prototype?

1. 
2. 
3. 

# #2 Testing Prototypes Reflection

What are the three most important insights that you identified from testing your prototype?

TEST TRANSITION ALIGNMENT

# TEAMALIGNMENT

In order to seek alignment as a team, share each of your summary pages and use the questions below to narrow your team’s focus and bring you more on to the next phase. Be sure to reference your planning sheet and to use prototyping reflection and reflection questions to help guide the direction of the next steps.

## #1 Prototyping T-ACTIVITY

You are reflecting on the progress made and testing your prototype.

You are reflecting on the progress made and testing your prototype.

## #2 Evaluating Prototypes to Get to Next Steps

What is your evaluation of your prototype?

## What’s Next?
What is the best next step for your design work?

## #3 Prototyping T-ACTIVITY

You are testing your prototype and considering the feedback you received from students and teachers.

You are testing your prototype and considering the feedback you received from students and teachers.

## #4 Reflection Grid

What are the most important insights that you identified from your reflection?

## #5 Reflection Grid

What are the most important insights that you identified from your reflection?

## INDIVIDUAL FIELDWORK TOOLS

# Testing Prototypes Reflection

What are the three most important insights that you identified from testing your prototype?

1. 
2. 
3. 

# #2 Testing Prototypes Reflection

What are the three most important insights that you identified from testing your prototype?

1. 
2. 
3. 

# CRITERIA FORMING TO THE NEXT PHASE

Use the rubric below to assess how your team has met all the goals of the phase and process in order to move into the next phase. Grade the description that most represents your team’s progress. Further Project Phase criteria at the bottom of the rubric, consider as a team the progress you’re making toward testing.

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>NEXT?</th>
<th>Ready with explanation</th>
<th>Ready with confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>#2 PROTOTYPING ACTIVITY</td>
<td>You are reflecting on the progress made and testing your prototype.</td>
<td>You are confident about your plan to test your prototype.</td>
<td></td>
</tr>
<tr>
<td>#3 TESTING PROTOTYPES</td>
<td>You are testing your prototype and considering the feedback you received from students and teachers.</td>
<td>You are confident about the prototype you plan to test and the feedback you received from students and teachers.</td>
<td></td>
</tr>
<tr>
<td>#4 REFLECTION ACTIVITY</td>
<td>You are reflecting on the progress made and testing your prototype.</td>
<td>You are confident about the prototype you plan to test and the feedback you received from students and teachers.</td>
<td></td>
</tr>
<tr>
<td>#5 ANNOTED ACTIVITY</td>
<td>You are testing your prototype and considering the feedback you received from students and teachers.</td>
<td>You are confident about the prototype you plan to test and the feedback you received from students and teachers.</td>
<td></td>
</tr>
</tbody>
</table>

## New, take a look at your results in the different criteria to determine if you are ready to move on to the next phase. For the criteria where you have least confident, trying reaching out to your facilitator for coaching or talk to another colleague or team for advice. If you have more than two areas where your team are confident, work to improve on remaining.
**TEST TRANSITION REFLECTION**

<table>
<thead>
<tr>
<th>TEST</th>
<th>TRANSITION</th>
<th>REFLECTION</th>
</tr>
</thead>
</table>

**REFLECTION ON PROCESS**
Indpendently, reflect on how your team is working together by answering the questions below. Then share your reflections as a team.

- What is the most important insight you gained during this phase of the design challenge?

- About which part of the phase of the design challenge do you feel most confident?

- About which part of the phase of the design challenge do you feel least confident? What is your team going to do to improve your confidence about this phase?

- What was the most difficult part to collaborate on for your team?

- How can you improve how your team works together in the next phase?

**SHARE OUT OF PROCESS**
When you have completed this reflection and are ready to transition to the next phase of the design challenge, share with your facilitator, school leader and/or colleagues to get feedback on your progress thus far.

They can use the feedback framework of I like, I wish, I wonder to provide helpful ideas for where you can improve and where your work is strongest. Write down the feedback you receive below.

---

**SCHOOLS 2030 HUMAN-CENTERED DESIGN TOOLKIT**

**ITERATE**

- LAUNCH
- EXPLORE
- DEFINE
- GENERATE
- MAKE
- TEST
- IMPLEMENT
- TELL
ITERATE INTRODUCTION

**OVERVIEW OF ITERATE PHASE**

The worksheet in the Iterate phase will help you advance your solution through a series of rounds of iteration until it can be done in schools/teams or with others.

- Design the first prototype, combining ideas from your reflection about your first round of testing and other ideas with specific elements, identifying the assumptions you are making with your solution and making a prototype to test those assumptions.

**OBJECTIVES OF ITERATE PHASE**

The goal of this phase is to help you advance your idea by incorporating feedback from the first round of testing while also testing any assumptions you are making about your problem and developing prototypes (low-time investment, low cost, small scale).

As a result of this phase, all team members should develop a clear view of how they are going to conduct a new iteration of a prototype to test an assumption embedded in the team's solution.

**MINDEDNESS OF ITERATE PHASE**

- Stay optimistic that you can solve the problem
- Prototype early and often in order to learn about your ideas
- Start small to make big changes
- Show don’t tell
- Many cycles of prototyping are necessary to develop an idea

**TEAM WORKSHOP TOOLS**

#1 Combine Reflections & Ideas

**WHAT’S THE TOOL?**

Combine Reflections & Ideas is a worksheet designed to help you combine ideas from your first round of testing in order to advance your solution.

**WHAT’S YOUR GOAL?**

Please help your group and combine new ideas into a broader concept.

#2 Building to Iterate

**WHAT’S THE TOOL?**

The Building to Iterate worksheet helps your team identify all the elements of your concept that need to be developed as well as the assumptions embedded in that concept.

**WHAT’S YOUR GOAL?**

Your concept in this phase will be more tangible than a single product. Use this tool to help you develop your concept more fully.

#3 Storyboard Your Iteration

**WHAT’S THE TOOL?**

Storyboard Your Iteration is a worksheet designed to help your team think through your ideas in terms of a timeline. What happens at the beginning, the middle and then end?

**WHAT’S YOUR GOAL?**

By thinking through your ideas in terms of a timeline, you will be able to further reflect on all the assumptions you are making and generate new assumptions as well.

#4 Design Another Prototype

**WHAT’S THE TOOL?**

The Design Another Prototype worksheet helps your team design low-resolution prototypes to test the assumptions you are making about why your concept is going to solve your stakeholder’s problem or fill their need.

**WHAT’S YOUR GOAL?**

As you continue to prototype, the ideas you generate are full of assumptions about why those ideas will solve your stakeholder’s problem or fill their need. Your prototype needs to test those assumptions early in order to get authentic, relevant stakeholder feedback.

**WHAT’S THE ENDING GOAL?**

1. The student can use a story to explain their idea and prototype.
2. The team can use a prototype to test assumptions about their ideas.
3. The team can use the prototype to test assumptions about why their ideas will solve the stakeholder’s problem or fill their need.
4. The team can use the prototype to gather feedback on their ideas.

**WHAT’S THE OUTCOME?**

1. The student can use a story to explain their idea and prototype.
2. The team can use a prototype to test assumptions about their ideas.
3. The team can use the prototype to test assumptions about why their ideas will solve the stakeholder’s problem or fill their need.
4. The team can use the prototype to gather feedback on their ideas.

**WHAT’S THE CATEGORY?**

1. The student can use a story to explain their idea and prototype.
2. The team can use a prototype to test assumptions about their ideas.
3. The team can use the prototype to test assumptions about why their ideas will solve the stakeholder’s problem or fill their need.
4. The team can use the prototype to gather feedback on their ideas.

**WHAT’S THE TOOL?**

The Building to Iterate worksheet helps your team identify all the elements of your concept that need to be developed as well as the assumptions embedded in that concept.

**WHAT’S YOUR GOAL?**

Your concept in this phase will be more tangible than a single product. Use this tool to help you develop your concept more fully.

**WHAT’S THE TOOL?**

Storyboard Your Iteration is a worksheet designed to help your team think through your ideas in terms of a timeline. What happens at the beginning, the middle and then end?

**WHAT’S YOUR GOAL?**

By thinking through your ideas in terms of a timeline, you will be able to further reflect on all the assumptions you are making and generate new assumptions as well.

**WHAT’S THE TOOL?**

The Design Another Prototype worksheet helps your team design low-resolution prototypes to test the assumptions you are making about why your concept is going to solve your stakeholder’s problem or fill their need.

**WHAT’S YOUR GOAL?**

As you continue to prototype, the ideas you generate are full of assumptions about why those ideas will solve your stakeholder’s problem or fill their need. Your prototype needs to test those assumptions early in order to get authentic, relevant stakeholder feedback.

**WHAT’S THE ENDING GOAL?**

1. The student can use a story to explain their idea and prototype.
2. The team can use a prototype to test assumptions about their ideas.
3. The team can use the prototype to test assumptions about why their ideas will solve the stakeholder’s problem or fill their need.
4. The team can use the prototype to gather feedback on their ideas.

**WHAT’S THE OUTCOME?**

1. The student can use a story to explain their idea and prototype.
2. The team can use a prototype to test assumptions about their ideas.
3. The team can use the prototype to test assumptions about why their ideas will solve the stakeholder’s problem or fill their need.
4. The team can use the prototype to gather feedback on their ideas.

**WHAT’S THE CATEGORY?**

1. The student can use a story to explain their idea and prototype.
2. The team can use a prototype to test assumptions about their ideas.
3. The team can use the prototype to test assumptions about why their ideas will solve the stakeholder’s problem or fill their need.
4. The team can use the prototype to gather feedback on their ideas.

**WHAT’S THE TOOL?**

The Building to Iterate worksheet helps your team identify all the elements of your concept that need to be developed as well as the assumptions embedded in that concept.

**WHAT’S YOUR GOAL?**

Your concept in this phase will be more tangible than a single product. Use this tool to help you develop your concept more fully.

**WHAT’S THE TOOL?**

Storyboard Your Iteration is a worksheet designed to help your team think through your ideas in terms of a timeline. What happens at the beginning, the middle and then end?

**WHAT’S YOUR GOAL?**

By thinking through your ideas in terms of a timeline, you will be able to further reflect on all the assumptions you are making and generate new assumptions as well.

**WHAT’S THE TOOL?**

The Design Another Prototype worksheet helps your team design low-resolution prototypes to test the assumptions you are making about why your concept is going to solve your stakeholder’s problem or fill their need.

**WHAT’S YOUR GOAL?**

As you continue to prototype, the ideas you generate are full of assumptions about why those ideas will solve your stakeholder’s problem or fill their need. Your prototype needs to test those assumptions early in order to get authentic, relevant stakeholder feedback.

**WHAT’S THE ENDING GOAL?**

1. The student can use a story to explain their idea and prototype.
2. The team can use a prototype to test assumptions about their ideas.
3. The team can use the prototype to test assumptions about why their ideas will solve the stakeholder’s problem or fill their need.
4. The team can use the prototype to gather feedback on their ideas.

**WHAT’S THE OUTCOME?**

1. The student can use a story to explain their idea and prototype.
2. The team can use a prototype to test assumptions about their ideas.
3. The team can use the prototype to test assumptions about why their ideas will solve the stakeholder’s problem or fill their need.
4. The team can use the prototype to gather feedback on their ideas.

**WHAT’S THE CATEGORY?**

1. The student can use a story to explain their idea and prototype.
2. The team can use a prototype to test assumptions about their ideas.
3. The team can use the prototype to test assumptions about why their ideas will solve the stakeholder’s problem or fill their need.
4. The team can use the prototype to gather feedback on their ideas.
Instructions: Now that you've reflected on what you learned from your prototype during the Test phase, let's combine your reflections to make a new possible solution. Write down everything you learned and want to include from your Reflection Grid from the last phase. Based on your reflections, you may want to iterate on your previous solution, you may want to review the other ideas you sketched out, or you may want to brainstorm totally new ideas. If you stay with your original idea, push it to be bolder or larger-scale.

SELECT MULTIPLE IDEAS FROM YOUR REFLECTION OR NEW IDEAS THAT YOU GENERATED THAT YOU WANT TO COMBINE.

Rewrite your new idea in the form of a newspaper headline.

CAREER MENTORS
Building to Iterate

Instructions: Now that you've tested a prototype, use what you learned to refine. You might decide to expand upon the idea or modify the design and create a new prototype. Or, you might decide to change the idea or focus on new technologies. Either way, you are off to a great start. Reflect on your work so far. Below are nine categories to help you think about what you learned and what you want to do next. Reflect on each category. After you've explored the ideas, reflect on the decisions you made in your planning. If you are starting with a new idea, answer the second set of questions about your description.

**EVENTS**
- What times were a group of people present?
- Is a specific person more likely to be present?

**RITUALS**
- What specific behaviors or actions that happen repeatedly to start a specific moment need to be captured?
- The student and mentors will play to get to know you games

**TIME**
- How might the allocation of time need to change for this idea?
- This kick off event will happen on a Saturday

**POLICY**
- What policies would need to shift or be created?

**COMMUNICATION**
- What new forms of communication will need to take place?
- We will communicate the matches to parents

**ASSUMPTIONS**
- What beliefs do you have about why this idea will meet your stakeholders needs? How will these influence the design of your solution?
- Will the intervention improve the outcomes you want?

**BUDGET**
- How might money need to be allocated for the idea?

**STUDENTS AND MENTORS**
- How might the design of the intervention evolve?

**SPACE**
- How might new spaces need to be used or created for success?

**ROLES**
- What new roles might need to be created for this idea?

**OBJECTS/PRODUCTS/TOOLS**
- What new artifacts or objects might need to be created for the new idea?

**PLACE**
- How might the space need to change for this idea?

**POLICY**
- What policies would need to shift or be created?

**OBJECTS/PRODUCTS/TOOLS**
- What new artifacts or objects might need to be created for the new idea?
Instructions: Now that you have tested your idea, draw another storyboard that maps out the experience you are hoping to create for your stakeholder. Take the assumptions you generated in the last exercise and match them to the phase of the experience that is most relevant. Generate new assumptions as well.
**Design Another Prototype**

**ASSUMPTIONS:**
- Students and mentors need games to get to know each other.
- There will be space at the school on Saturdays.
- The match event can happen on a Saturday.

**PROTOTYPE 1:**
- What will you do?
- What are you trying to learn?
- How will you make sense of what happened?

**PROTOTYPE 2:**
- What will you do?
- What are you trying to learn?
- How will you make sense of what happened?

**PROTOTYPE 3:**
- What will you do?
- What are you trying to learn?
- How will you make sense of what happened?

**ASSUMPTIONS:**
- STAKEHOLDERS NEED TO SEE THE IDEAS COME TO LIFE.
- WE WILL HAVE RIGHTS TO DETERMINE THE TIME AND DATE OF THE EVENT.

**PILOT:**
- Once you have completed your prototypes, you will combine ideas into a pilot that is bigger, faster, and cheaper. We will test this version in the implementation phase.

**Design Another Prototype**

**ASSUMPTIONS:**
- There will be space at the school on Saturdays.
- Students and mentors need games to get to know each other.

**PROTOTYPE 1:**
- What will you do?
- What are you trying to learn?
- How will you make sense of what happened?

**PROTOTYPE 2:**
- What will you do?
- What are you trying to learn?
- How will you make sense of what happened?

**PROTOTYPE 3:**
- What will you do?
- What are you trying to learn?
- How will you make sense of what happened?

**ASSUMPTIONS:**
- STAKEHOLDERS NEED TO SEE THE IDEAS COME TO LIFE.
- WE WILL HAVE RIGHTS TO DETERMINE THE TIME AND DATE OF THE EVENT.

**PILOT:**
- Once you have completed your prototypes, you will combine ideas into a pilot that is bigger, faster, and cheaper. We will test this version in the implementation phase.
ITERATE TRANSITION SUMMARY

Use the Iterate summary page to gather up the work you completed during each phase of the process. Refactoring the holistic learning outcomes (see the right side of this page) as you summarize the information. Take the opportunity now to make changes as needed.

TEAM WORKSHOP TOOLS

#1 Combine Reflections & Ideas
What is the most important new solution you generated?

#2 Storyboard Visualization
What is the most important solution you experience created?

#3 Building to Learn
What is the most important assumption you generated?

#4 Design Another Prototype
What are the three most important logical to consider?

ITERATE TRANSITION ALIGNMENT

TEAM ALIGNMENT

In order to seek alignment in a team, share each of your summary pages with the questions below to narrow your team's focus. After you move on to the next phase of the project, your team will focus on your summary page with the questions. Let each person read their summary response without interruption or comment from the team. If there are differing views and ideas from team members, ask questions to gain understanding. To questions like: "Can you share more information about how you came to these ideas?" "Tell me more about that..." Each team member can then identify the best ideas and summary of your design work, but must assemble the ideas below before moving on.

WHAT ARE YOUR SOLUTIONS?

Explain the two assumptions that your team is working on. What is your solution? Describe the prototype your team will develop. What will you do?

WHAT ARE YOU TRYING TO LEARN?

How will you make sense of what happened?

HOW DO YOU THINK YOUR PROTOTYPE WILL HELP GROW?

How do you think your team’s prototype will lead you to a solution that will improve the holistic learning outcomes for your student?

CRITERIA FORMING TO THE NEXT PHASE

Using the rubric below to assess your team has met all the goals of the phases of the challenge and are ready to move into the next phase. Circle the description that best represents your team. Enter your scores below in the boxes to the right, consider a complete team the progress you are making.

1. You are feeling well.
2. You feel ready.
3. You are ready with a team.

LEARNER INFLUENCING FACTORS

The team felt the team was working on a single concept. The whole team was working on a single concept but not comfortably. The team was working on two or more concepts.

LISTENING TO TEAM

You are struggling to understand the team's solutions and believe the team is working on a single concept. You are struggling to understand what the team is working on yet believe the team is not comfortably working on a single concept.

ENGAGING YOUR TEAMMATES

You and your team are working on a single concept but not comfortably working on a single concept.

MOVING FORWARD

You and your team are working on two or more concepts.

Attending to Each Other

The team feels that their thinking and assumptions are not being heard. The team feels that the assumptions are not being heard and are struggling to understand each other.

PROJECT STATUS: QUALITY OF THE PROTOTYPING

The prototypes that were designed and used are not effective in the solution or are not effective in the solution. The prototypes are not effective in the solution.

PROJECT STATUS: CONNECTION TO LEARNING OUTCOMES

The team and the team are struggling to understand the assumptions. The team are struggling to understand the assumptions.

PROJECT STATUS: COLLABORATION

There has been some agreement on the solutions being designed and implemented. There has been some agreement on the solutions being designed and implemented.

Circle the number that represents the solutions being designed and implemented that are meaningful to the team.

HOLISTIC LEARNING OUTCOMES

Core Academic Proficiencies

• Literacy
• Math
• Science
• Social and Cultural

Key Competencies

• Communication
• Collaboration
• Critical thinking
• Managing resistance

Now, take a look at your results in the different criteria to determine if you are ready to move on to the next phase. For the criteria where you are least confident, try re-forming your focus for the next phase of the project. If you have more than two criteria where your team score stands, work to improve before moving on.

OUTCOMES - OVERALL

• Civic engagement
• Empathy
• Open mindedness
• Collaboration
• Critical thinking
• Working With Others
• Self efficacy
• Self regulation
• Taking responsibility
• Critical decision-making
• Creativity
• Resilience
• Self control

OUTCOMES - BEING OUR BEST

• Arts & culture
• Science
• Literacy
• Proficiencies

OUTCOMES - WORKING WITH OTHERS

• Empathy
• Collaboration
• Critical thinking
• Managing resistance
• Self control
• Self efficacy
• Taking responsibility
• Critical decision-making
• Creativity

OUTCOMES - BEING OUR BEST

• Reflection
• Adaptability
• Being Our Best
• Working With Others

OUTCOMES - WORKING WITH OTHERS

• Empathy
• Collaboration
• Critical thinking
• Managing resistance
• Self control
• Self efficacy
• Taking responsibility
• Critical decision-making
• Creativity

OUTCOMES - BEING OUR BEST

• Reflection
• Adaptability
• Being Our Best
• Working With Others

OUTCOMES - WORKING WITH OTHERS

• Empathy
• Collaboration
• Critical thinking
• Managing resistance
• Self control
• Self efficacy
• Taking responsibility
• Critical decision-making
• Creativity

OUTCOMES - BEING OUR BEST

• Reflection
• Adaptability
• Being Our Best
• Working With Others

OUTCOMES - WORKING WITH OTHERS

• Empathy
• Collaboration
• Critical thinking
• Managing resistance
• Self control
• Self efficacy
• Taking responsibility
• Critical decision-making
• Creativity

OUTCOMES - BEING OUR BEST

• Reflection
• Adaptability
• Being Our Best
• Working With Others

OUTCOMES - WORKING WITH OTHERS

• Empathy
• Collaboration
• Critical thinking
• Managing resistance
• Self control
• Self efficacy
• Taking responsibility
• Critical decision-making
• Creativity

OUTCOMES - BEING OUR BEST

• Reflection
• Adaptability
• Being Our Best
• Working With Others

OUTCOMES - WORKING WITH OTHERS

• Empathy
• Collaboration
• Critical thinking
• Managing resistance
• Self control
• Self efficacy
• Taking responsibility
• Critical decision-making
• Creativity

OUTCOMES - BEING OUR BEST

• Reflection
• Adaptability
• Being Our Best
• Working With Others

OUTCOMES - WORKING WITH OTHERS

• Empathy
• Collaboration
• Critical thinking
• Managing resistance
• Self control
• Self efficacy
• Taking responsibility
• Critical decision-making
• Creativity

OUTCOMES - BEING OUR BEST

• Reflection
• Adaptability
• Being Our Best
• Working With Others
ITERATE TRANSITION REFLECTION

**REFLECTION ON PROCESS**

Individually, reflect on how your team is working together by answering the questions below. Then share your reflections as a team:

- What is the most important insight you gained during this phase of the design challenge?
- About which part of this phase of the design challenge do you feel most confident?
- About which part of this phase of the design challenge do you feel least confident? What are you going to do to improve your confidence about this phase?
- What was the most difficult part to collaborate on for your team?
- How can you improve how your team works together in the next phase?

**SHAREOUT OF PROCESS**

When you have completed this reflection and are ready to transition to the next phase of the design challenge, share with your facilitator, schoolleader and/or colleagues to get feedback on your progress thus far. They can use the feedback framework of I like, I wish, I wonder to provide helpful ideas for where you can improve and where your work is strongest. Write down the feedback you receive below.
TEST ANOTHER INTRODUCTION

OVERVIEW OF TEST ANOTHER PROTOTYPE PHASE

The workshops in the Test Another Prototype phase are designed to help you develop and test your solutions, based on specific questions about your prototype and test assumptions embedded in the idea. Each workshop in this phase can be done collaboratively with school-based teams or other schools. Prototyping will be conducted by individual educators.

The phase of the design process will include prepping you to test your prototype and reflect on what you learned, and evaluating your idea based on the stakeholder’s needs.

OBJECTIVES OF TEST ANOTHER PROTOTYPE PHASE

The goal of this phase is to test your two-revolution prototype with stakeholders to get authentic feedback.

At the end of this phase, you should have a clear answer about whether the solution you are developing has the potential to meet the needs you identified in your POV statement and close the learning gap identified.

MINDSETS OF TEST ANOTHER PROTOTYPE PHASE

• Step optimistic that you can solve the problem
• Prototype early and often in order to learn about your idea
• Start small to make big change
• Slow down
• Many cycles of prototyping are necessary to develop an idea
• Feedback is a gift to improve ideas

TEAM WORKSHOP TOOLS

1. Data Prototype
   • Test prototype requires a little bit of planning. The data help you think through these logistics.
   • WHAT IS THIS TOOL?
     The Data Prototype workshop is designed to help you plan the logistics of testing your prototype.
   • WHAT IS YOUR GOAL?
     Testing prototypes requires a little bit of planning. The data helps you think through these logistics.

2. Testing Prototype Reflection
   • WHAT IS THIS TOOL?
     Testing Prototype Reflection is a worksheet designed to help you test your prototype and then reflect on what you learned from testing your prototype.
   • WHAT IS YOUR GOAL?
     To use the reflection worksheet to design, develop and test your prototype and then capture what you learned from testing.

3. Reflection Grid
   • WHAT IS THIS TOOL?
     The Reflection Grid is a worksheet designed to help you make sense of what you learned from testing your prototype.
   • WHAT IS YOUR GOAL?
     The primary goal of testing is to reflect and learn about your idea and whether it meets the needs of the stakeholder or not. Let's look to capture what you learned from testing.

4. Idea Evaluation
   • WHAT IS THIS TOOL?
     Idea Evaluation is a worksheet designed to help you evaluate your prototype based on your stakeholder feedback.
   • WHAT IS YOUR GOAL?
     As you continue to work through the design challenge, it is important to continue to review your original stakeholder’s POV and how well your solution will close the learning gap identified.

INDIVIDUAL FIELDWORK TOOLS

1. Testing Prototype Reflection
   • WHAT IS THIS TOOL?
     Testing Prototype Reflection is a worksheet designed to help you test your prototype and then reflect on what you learned from testing your prototype.
   • WHAT IS YOUR GOAL?
     To use the reflection worksheet to design, develop and test your prototype and then capture what you learned from testing.

2. Reflection Grid
   • WHAT IS THIS TOOL?
     The Reflection Grid is a worksheet designed to help you make sense of what you learned from testing your prototype.
   • WHAT IS YOUR GOAL?
     The primary goal of testing is to reflect and learn about your idea and whether it meets the needs of the stakeholder or not. Let’s look to capture what you learned from testing.

3. What Did You Learn?
   • WHAT IS THIS TOOL?
     What Did You Learn? worksheet asks you to reflect on what assumptions you are making about why your idea will solve your stakeholder’s problem. This tool also asks you to continue to iterate based on what you learn from testing.
   • WHAT IS YOUR GOAL?
     When you have completed this tool, you will have clarity on how you are going to test the assumptions embedded in your solution.

取决于不同的教育水平，教育目标（我们的课堂/学校）：
• Ethical decision making
• Self-efficacy
• Leadership
• Relationship building
• Social studies, technology & needs

Being Our Best (For individual learners):
• Critical thinking
• Open mindedness
• Ethos

Working With Others (For class/school):
• Communication
• Collaboration
• Social studies, technology & needs

Improving Our World (for community/world):
• Problem solving
• Critical thinking
• Self-efficacy
• Leadership
• Social studies, technology & needs
Test a Prototype

1. WHAT ASSUMPTIONS WILL YOU MAKE IN ORDER TO TEST YOUR PROTOTYPE?
   - STUDENTS AND MENTORS NEED TO KNOW EACH OTHER
   - THE MIDDLE SCHOOL WILL HAVE ENOUGH ROOM FOR EACH STUDENT AND MENTOR TO GET TO KNOW EACH OTHER

2. WHAT MATERIALS WILL YOU NEED?
   - FIVE POTENTIAL MENTORS AND ANOTHER TEACHER
   - SUPPLIES FOR MAKING NAME TAGS AND BUILDING A TOWER

3. WHERE WILL YOU TEST THE PROTOTYPE?
   - IN THE CAFETERIA AT SCHOOL
   - SNACKS
   - THANK YOU NOTES FOR THE MENTORS

4. ANYTHING ELSE YOU NEED TO PREPARE?
   - GATHER NAME TAG SUPPLIES
   - SET UP ROOM
   - HOLD EVENT

5. HOW WILL YOU SET UP THE SPACE?
   - ENOUGH ROOM FOR EACH STUDENT AND THEIR MENTOR TO GET TO KNOW EACH OTHER
   - DECIDED ON A MIDDLE SCHOOL DATE
   - THANK YOU NOTES

6. WHAT ARE THE STEPS THAT YOU NEED TO COMPLETE IN ORDER TO TEST YOUR PROTOTYPE?
   - CONTACT POTENTIAL MENTORS
   - INFORM PARENTS
   - INVITE STUDENTS
   - GATHER NAME TAG SUPPLIES
   - SET UP ROOM
   - HOLD EVENT
   - DEBRIEF WITH STUDENTS
   - SEND THANK YOU NOTES

Test a Prototype

1. WHAT ASSUMPTIONS WILL YOU MAKE IN ORDER TO TEST YOUR PROTOTYPE?
   - STUDENTS AND MENTORS NEED TO KNOW EACH OTHER
   - THE MIDDLE SCHOOL WILL HAVE ENOUGH ROOM FOR EACH STUDENT AND MENTOR TO GET TO KNOW EACH OTHER

2. WHAT MATERIALS WILL YOU NEED?
   - FIVE POTENTIAL MENTORS AND ANOTHER TEACHER
   - SUPPLIES FOR MAKING NAME TAGS AND BUILDING A TOWER

3. WHERE WILL YOU TEST THE PROTOTYPE?
   - IN THE CAFETERIA AT SCHOOL
   - SNACKS
   - THANK YOU NOTES FOR THE MENTORS

4. ANYTHING ELSE YOU NEED TO PREPARE?
   - GATHER NAME TAG SUPPLIES
   - SET UP ROOM
   - HOLD EVENT

5. HOW WILL YOU SET UP THE SPACE?
   - ENOUGH ROOM FOR EACH STUDENT AND THEIR MENTOR TO GET TO KNOW EACH OTHER
   - DECIDED ON A MIDDLE SCHOOL DATE
   - THANK YOU NOTES

6. WHAT ARE THE STEPS THAT YOU NEED TO COMPLETE IN ORDER TO TEST YOUR PROTOTYPE?
   - CONTACT POTENTIAL MENTORS
   - INFORM PARENTS
   - INVITE STUDENTS
   - GATHER NAME TAG SUPPLIES
   - SET UP ROOM
   - HOLD EVENT
   - DEBRIEF WITH STUDENTS
   - SEND THANK YOU NOTES

7. WHAT MATERIALS WILL YOU NEED?

8. WHAT ARE THE STEPS THAT YOU NEED TO COMPLETE IN ORDER TO TEST YOUR PROTOTYPE?
Instructions: First, identify the assumptions you have designed your prototype to test. Next, write detailed questions that you will ask the person who is testing your prototype. Take notes on what you learn from that person.

1 ASSUMPTION
What is the assumption that this prototype is designed to test?

WHAT WAS IT LIKE TO PLAY THE GET-TO-KNOW-YOU GAMES?

DIDN'T MAKE IT EASIER TO GET TO KNOW YOUR MENTORS/MENTEES?

2 ASSUMPTION
What is the assumption that this prototype is designed to test?

WHAT WILL BE SPACE AT THE SCHOOL ON SUNDAYS?

CAN WE HOLD AN EVENT AT SCHOOL NEXT SATURDAY?

PROTOTYPE TESTING NOTES
What did you see?
Look for emotions (sadness, excitement, joy) in the person’s body language and facial expressions.

LOTS OF LAUGHTER AND SMILES!

TEST YOUR PROTOTYPE!

Instructions: First, identify the assumptions you have designed your prototype to test. Next, write detailed questions that you will ask the person who is testing your prototype. Take notes on what you learn from that person.

1 ASSUMPTION
What is the assumption that this prototype is designed to test?

WHAT DID YOU HEAR?

Write down specific quotations. Listen for stories, emotions, motivations and behaviors.

LISTEN AND RECORD CONTRARY INFORMATION.

2 ASSUMPTION
What is the assumption that this prototype is designed to test?

WHAT QUESTIONS DO YOU WANT TO ASK THE PERSON WHO IS TESTING THE PROTOTYPE TO LEARN ABOUT THE ASSUMPTIONS YOU ARE TRYING TO TEST?

TEST YOUR PROTOTYPE!
Instructions: Take a look at the notes you collected from testing your prototype. Use the worksheet to organize your thoughts, reactions and questions. Use this tool to make sense of what you experienced and capture areas of potential opportunity that you would like to address as you create your next prototype.

**Reflection**

**LIKES**
What did you see that is working well?

**CHANGES**
What did you see that is not working well?

**QUESTIONS**
What did you see that raised questions for you?

**IDEAS**
What ideas came to you as you observed?

**THE STUDENTS AND ADULTS ENJOYED SPENDING TIME GETTING TO KNOW EACH OTHER**

**Saturdays were logistically hard for the mentors.**

**COULD WE HAVE THE SAME KIND OF EVENT AFTER SCHOOL?**

**IF WE GAVE THE MENTORS ACTIVITY IDEAS, WE COULD HAVE THE STUDENTS MEET THEM FOR THE FIRST TIME AT THEIR WORK PLACES...**

**WHAT DID YOU LEARN?**

**IDEA EVOLUTION**

**LAUNCH EXPLORE DEFINE GENERATE MAKE TEST ITERATE TEST IMPLEMENT**

**THE STUDENTS AND ADULTS ENJOYED SPENDING TIME GETTING TO KNOW EACH OTHER**

**Saturdays were logistically hard for the mentors.**

**COULD WE HAVE THE SAME KIND OF EVENT AFTER SCHOOL?**

**IF WE GAVE THE MENTORS ACTIVITY IDEAS, WE COULD HAVE THE STUDENTS MEET THEM FOR THE FIRST TIME AT THEIR WORK PLACES...**

**WHAT DID YOU LEARN?**

**IDEA EVOLUTION**

**LAUNCH EXPLORE DEFINE GENERATE MAKE TEST ITERATE TEST IMPLEMENT**
**What did you learn?**

**Assumption:**
What was the assumption that this prototype was designed to test?

1. **Students and Mentors need games to get to know each other.**
   - **WHAT DID YOU LEARN?**
     What did you learn from your stakeholders about the assumption you were testing?
   - **WHAT WILL YOU DO?**
     How will you iterate on your idea based on stakeholder feedback?

2. **There will be space at the school on Saturdays.**
   - **WHAT DID YOU LEARN?**
     What did you learn from your stakeholders about the assumption you were testing?
   - **WHAT WILL YOU DO?**
     How will you iterate on your idea based on stakeholder feedback?

Instructions: Reflect on what assumptions you tested, what you learned and how you will iterate on your idea.
### Idea Evaluation

**Instructions:** Mark the worksheet to reflect on how well your prototype met the needs of the stakeholder in relation to the state of the prototype. Next, write questions to reflect on how well your solution will increase the holistic learning outcomes for students.

<table>
<thead>
<tr>
<th>Big change</th>
<th>Small change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did Not Meet the Stakeholder’s Needs</td>
<td>Did Not Meet the Stakeholder’s Needs</td>
</tr>
</tbody>
</table>

#### Evaluation

1. **After reflecting on your prototype, how do you think your idea aligns with your POI statement? Why?**

   - **Yes!** Believe the Aft er school career exploration program will directly help Joe connect what is learning today with what he needs for his future career.

2. **After reflecting on your prototype, how well do you think your idea will improve the holistic learning outcomes for students? Why?**

   - **I believe the After school career exploration program will help students to expand their horizons and develop career goals for themselves which will in turn help them to advocate for their goals and become more self-efficacious.**

3. **Based on what you learned from your second round of prototyping, what do you want to be sure to communicate about your idea and why it will meet your stakeholder’s needs when you write your pitch?**

   - **I believe the After school career exploration program will inspire students to think broadly about their potential careers and mentors who will inspire and help the students to follow their dreams.**
TEAM WORKSHOP TOOLS

1. Test a Prototype
What are the most important logistics to consider for your prototype?

2. Testing Prototypes Reflection
What are the three most important things you learned from testing your prototypes?

3. What Did You Learn?
What are the most important changes you want to make to your idea?

4. Idea Evaluation
After reflecting on your prototype, how well do you think your idea aligns with your ICS assessed? Why?

5. Test Reflection
After reflecting on your prototype, do you think you idea aligns with your ICS assessment? Why?

INDIVIDUAL FILLER WORKTOOLS

1. Review Grid
What are the most important insights that you identified from your reflection?

2. Prototype Reflection
What are the most important insights that you identified from your reflection?

3. Additional Feedback
What do you need to do to improve your prototype?

TEAM SUMMARY

1. Test a Prototype
What are the most important logistics to consider for your prototype?

2. Testing Prototypes Reflection
What are the three most important things you learned from testing your prototypes?

3. What Did You Learn?
What are the most important changes you want to make to your idea?

4. Idea Evaluation
After reflecting on your prototype, how well do you think your idea aligns with your ICS assessment? Why?

5. Test Reflection
After reflecting on your prototype, do you think your idea aligns with your ICS assessment? Why?

OUTCOMES

1. Entrepreneurship
(our community/our world)

2. Leadership

3. Empathy

4. Open-mindedness

5. Collaboration

6. Communication

7. Creativity

8. Taking responsibility

9. Self

10. Digital literacy, technology & media

11. Humanities

12. Applied Academic

13. Health & nutrition

14. Literacy

15. Self-confidence

16. Self-regulation

17. Critical thinking

18. Working with others

19. Problem-solving

20. Engagement

21. Creativity

22. Respect for the Environment

PREPARE TO LEARN

1. Prototype What are the most important logistics to consider for your prototype?

2. Testing Prototypes Reflection
What are the three most important insights that you identified from your reflection?

3. What Did You Learn?
What are the most important changes you want to make to your idea?

4. Idea Evaluation
After reflecting on your prototype, how well do you think your idea aligns with your ICS assessment? Why?

5. Test Reflection
After reflecting on your prototype, do you think your idea aligns with your ICS assessment? Why?

TEST ANOTHER TRANSITION ALIGNMENT

1. Criteria (Formative to the next phase)
Use the rubric below to assess your team’s next all the goals of the phase of the process and are ready to move into the next phase. Circle the description that most represents your team’s progress. Put a辣椒在 critical at the bottom of the rubric, consider as a team the progress you’re making towards.

2. Testing Prototypes Reflection
After reflecting on your prototype, how well do you think your idea aligns with your ICS assessment? Why?

3. What Did You Learn?
What are the most important changes you want to make to your idea?

4. Idea Evaluation
After reflecting on your prototype, how well do you think your idea aligns with your ICS assessment? Why?

5. Test Reflection
After reflecting on your prototype, do you think your idea aligns with your ICS assessment? Why?

TEST ANOTHER TRANSITION SUMMARY

1. Testing Prototypes Reflection
After reflecting on your prototype, how well do you think your idea aligns with your ICS assessment? Why?

2. What Did You Learn?
What are the most important changes you want to make to your idea?

3. Idea Evaluation
After reflecting on your prototype, how well do you think your idea aligns with your ICS assessment? Why?

4. Test Reflection
After reflecting on your prototype, do you think your idea aligns with your ICS assessment? Why?

5. Test a Prototype
What are the most important logistics to consider for your prototype?

FORMATIVE TO THE NEXT PHASE

1. Criteria (Formative to the next phase)
Use the rubric below to assess your team’s next all the goals of the new phase and are ready to move into the next phase. Circle the description that most represents your team’s progress. Put a辣椒在 critical at the bottom of the rubric, consider as a team the progress you’re making towards.

2. Testing Prototypes Reflection
After reflecting on your prototype, how well do you think your idea aligns with your ICS assessment? Why?

3. What Did You Learn?
What are the most important changes you want to make to your idea?

4. Idea Evaluation
After reflecting on your prototype, how well do you think your idea aligns with your ICS assessment? Why?

5. Test Reflection
After reflecting on your prototype, do you think your idea aligns with your ICS assessment? Why?

OUTCOMES

1. Entrepreneurship
(our community/our world)

2. Leadership

3. Empathy

4. Open-mindedness

5. Collaboration

6. Communication

7. Creativity

8. Taking responsibility

9. Self

10. Digital literacy, technology & media

11. Humanities

12. Applied Academic

13. Health & nutrition

14. Literacy

15. Self-confidence

16. Self-regulation

17. Critical thinking

18. Working with others

19. Problem-solving

20. Engagement

21. Creativity

22. Respect for the Environment

PREPARE TO LEARN

1. Prototype What are the most important logistics to consider for your prototype?

2. Testing Prototypes Reflection
What are the three most important insights that you identified from your reflection?

3. What Did You Learn?
What are the most important changes you want to make to your idea?

4. Idea Evaluation
After reflecting on your prototype, how well do you think your idea aligns with your ICS assessment? Why?

5. Test Reflection
After reflecting on your prototype, do you think your idea aligns with your ICS assessment? Why?
TEST ANOTHER TRANSITION REFLECTION

n REFLECTION ON PROCESS
Independently, reflect on how your team is working together by answering the questions below. Then share your reflections as a team:

• What is the most important insight you gained during this phase of the design challenge?

• About which part of the phase of the design challenge do you feel most confident?

• About which part of the phase of the design challenge do you feel least confident?

• What was the most difficult part to collaborate on for your team?

• How can you improve how your team works together in the next phase?

n SHAREOUT OF PROCESS
When you have completed this reflection and are ready to transition to the next phase of the design challenge, share your reflections as a team to get feedback on your progress thus far.

They can use the feedback framework of I like, I wish, I wonder to provide helpful ideas for where you can improve and where your work is strongest. Write down the feedback you receive below.

IMPLEMENT SCHOOLS 2030 HUMAN-CENTERED DESIGN TOOLKIT
IMPLEMENTATION

INTRODUCTION

TEAM/WORKSHOP TOOLS

#1: Reflect Your Idea

45-60 minutes

WHAT IS THIS TOOL?

Reflect Yourself for worksheet designed to help you begin to think about your prototype as a concept you are implementing.

WHAT IS YOUR GOAL?

Understanding an idea is radically different than implementing a concept. Transitioning to implementation can be difficult for teams, this framework to help your team make the transition.

#2: Project Planning

45-60 minutes

WHAT IS THIS TOOL?

The Project Planning worksheet is designed to help your team transition from an exploratory design mode to implementation mode and map out the next steps required to implement your solution.

WHAT IS YOUR GOAL?

Your concept is moving from open-ended design work to implementing an idea requires a significant shift in how the team is working. This framework to support that shift:

- The team should be aligned around the next steps needed.
- The team should be aligned around the next steps needed.
- The team should be aligned around the next steps needed.

#3: Project Planning Timeline

45-60 minutes

WHAT IS THIS TOOL?

The Project Planning Timeline worksheet is designed to map out the next steps required to implement your solution based on a timeline.

WHAT IS YOUR GOAL?

Identifying key to breakdown the implementation of your concept into specific parts with deadlines. When you have completed these tasks, your team should be aligned around the next steps needed.

HOUSFIELD LEARNING OUTCOMES

Core Academic Proficiencies

- Literacy
- Numeracy & Mathematics

Applied Academic Proficiencies

- Science
- Health & Nutrition
- Art & culture
- Digital literacy, technology & media

Being Our Best (for individual learners)

- Self efficacy
- Self regulation
- Resilience
- Taking responsibility
- Self-determination
- Critical thinking

Working With Others (our classroom)

- Collaboration
- Critical thinking
- Open mindedness
- Empathy
- Relationship building
- Recording evidence

Improving Our World (our community/our world)

- Problem solving
- Critical thinking
- Entrepreneurship
- Resilience
- Self efficacy
- Relationship to the Environment
Refine Your Idea

1. CONCEPT TITLE
   CAREER MENTORS

2. CONCEPT HEADLINE
   CREATING RELATIONSHIPS WITH PROFESSIONALS TO STUDENTS GROW

3. CONCEPT DESCRIPTION
   In your concept a series of small interventions, a larger programmatic idea or an broader culture shift.

   STUDENTS WILL BE MATCHED WITH A BUSINESS LEADER AND WILL SPEND EVERY WEDNESDAY WITH THEM FOR TWO MONTHS

4. OBJECTIVES
   What behavior changes do you hope your concept will create?

   STUDENTS WILL TALK ABOUT THEIR DREAMS FOR THEIR CAREERS

   STUDENTS WILL BE ABLE TO CONNECT WHAT THEY ARE LEARNING TODAY WITH WHAT THEY NEED TO KNOW IN THE FUTURE.

   STUDENTS WILL DEMONSTRATE MORE SELF-EFFICACY AND WILL ADVOCATE FOR THEIR LEARNING.

5. IMPLEMENTATION
   how will you know if your concept is working?

   EVENTS

   RECRUITMENT EVENT

   Role

   PROGRAM MANAGER

   Role

   MENTOR MATCH

   Time

   WEDNESDAYS AFTER SCHOOL

   Space

   Role

   Communication

   INFORMING PARENTS OF PROGRAM

   Objects/Artifacts

6. INDICATORS
   What will you do to measure the impact?

   STUDENTS WILL PURSUE THEIR STATED CAREER GOALS.

   STUDENTS WILL INFLUENCE WHAT THEY ARE LEARNING IN SCHOOL.

   STUDENTS HAVE MORE CONNECTIONS IN THE BUSINESS COMMUNITY.

   OBJECTIVES

   What behavior changes do you hope your concept will create?

   EVENTS

   RECRUITMENT EVENT

   Role

   PROGRAM MANAGER

   Role

   MENTOR MATCH

   Time

   WEDNESDAYS AFTER SCHOOL

   Space

   Role

   Communication

   INFORMING PARENTS OF PROGRAM

   Objects/Artifacts

6. INDICATORS
   How will you know if your concept is working?

   STUDENTS WILL PURSUE THEIR STATED CAREER GOALS.

   STUDENTS WILL INFLUENCE WHAT THEY ARE LEARNING IN SCHOOL.

   STUDENTS HAVE MORE CONNECTIONS IN THE BUSINESS COMMUNITY.
1. **Who** will be responsible for leading this project?
2. **What other resources are needed?**
3. **What will we measure?**

1. **What interventions will need to be implemented?**
2. **What needs to stop happening?**
3. **What needs to start happening?**

1. **A NEW AFTER-SCHOOL PROGRAM**
2. **STUDENTS GOING TO THEIR MENTORS’ OFFICES AFTER SCHOOL.**
3. **STUDENTS GOING HOME AFTER SCHOOL**

1. **How might behaviors look different if the goals are achieved?**
2. **How might emotions look different if the goals are achieved?**
3. **How will we know if it was successful?**

1. **IF STUDENTS DEMONSTRATE MORE SELF-EFFICACY**
2. **IF STUDENTS HAVE MORE SELF-CONFIDENCE**
3. **STUDENTS WILL FIND MORE JOY IN LEARNING BECAUSE THEY SEE HOW IT IS CONNECTED TO THEIR FUTURE**

1. **Who needs to be convinced that this idea is good?**
2. **What plans need to be made before this is launched?**
3. **What else needs to be done?**

1. **MENTORS**
2. **STUDENTS**
3. **FAMILIES**

1. **MENTORS’ FAMILIES**
2. **HEAD OF SCHOOL**
3. **STUDENTS POTENTIAL MENTORS FAMILIES**

1. **COST?**
2. **RESOURCES**
3. **PARTICIPATION?**

1. **WHAT** will this be?
2. **WHEN** will it launch?
3. **WHERE** will it be implemented?

1. **WHAT** will we measure?
2. **WHEN** will it launch?
3. **HOW MUCH** will it cost?

1. **WHAT** will be changed or created?
2. **WHAT** needs to stop happening?
3. **WHAT** needs to start happening?

1. **PROJECT PLANNING TIMELINE**
2. **PROJECT PLANNING**
3. **PROJECT IMPLEMENTATION**

1. **LAUNCH**
2. **DEPLOY**
3. **REFINE**

---

Instructions: Use this worksheet to determine the details of your project and begin to draft a plan for implementing your solution.
**Project Planning Timeline**

**Step 1:**
Who? HEAD OF SCHOOL
What? HIRES PROGRAM MANAGER
Deadline: THREE MONTHS BEFORE SCHOOL BEGINS

**Step 2:**
Who? PROGRAM MANAGER
What? RECRUITS POTENTIAL MENTORS
Deadline: TWO MONTHS BEFORE SCHOOL BEGINS

**Step 3:**
Who? TEACHERS
What? RECRUITS STUDENTS TO PARTICIPATE
Deadline: ONE MONTH BEFORE SCHOOL BEGINS

**Step 4:**
Who? FAMILIES
What? SIGNS A PERMISSION FORM FOR THEIR STUDENTS
Deadline: TWO WEEKS BEFORE SCHOOL BEGINS

**Step 5:**
Who? PROGRAM MANAGER
What? PLANS/KICK OFF EVENT AND GET-TO-KNOW-YOU ACTIVITIES
Deadline: ONE WEEK BEFORE SCHOOL BEGINS

**Step 6:**
Who? PROGRAM MANAGER, STUDENTS & MENTORS
What? LAUNCHES PROGRAM WITH A GET-TO-KNOW-YOU EVENT
Deadline: ONE WEEK AFTER SCHOOL BEGINS

Instructions: Map out the next steps needed to move from concept to implementation. Possible next steps include: concept development, prototyping, secondary research, project planning, piloting.
IMPLEMENT OUTCOMES

Use

Summarize

PREPARE

Prepare

EXPLORE

EXPLORE

LAUNCH

LAUNCH

IMPLEMENT

IMPLEMENT

RUBRIC

RUBRIC

TEST

TEST

ITERATE

ITERATE

Make the rubric below accessible to your team members. Show all the goals of the phase and be ready to move into the next phase. Circle the description that most represents your team’s progress. Further Project Phase criteria at the bottom of the rubric, consider as team the progress you are making toward.$#1

PHASE

PHASE

PERFORMANCE

PERFORMANCE

How does your team’s concept lead to improving the holistic learning outcomes for your student?

TEAM ALIGNMENT

In order to seek alignment as a team, share each of your summary pages and use the questions below to narrow your team’s focus so that you can move on to the next phase. If you need time to review the previous phase’s work, let each person read their summary response without interruption or comment from the team. If there are differing views and ideas from team members, ask questions to gain understanding. To questions like "Can you share more information about how you came to those ideas?" Tell them more about that..." Then lead the team to decide if the different parts of their design are aligned, but you may write on the board without criteria to move on.$#2

PROJECT TIMELINE

PROJECT TIMELINE

REFINE

REFINE

As a team, determine what concept you plan to pitch to the School 2600 initiative leadership and implement on your campus.

PROJECT STATUS

PROJECT STATUS

EVALUATE

EVALUATE

PROJECT STATUS

SUCCESS

SUCCESS

PROJECT STATUS

PROJECT STATUS

TELL

TELL

 emote

CONTRIBUTE

CONTRIBUTE

CONTRIBUTE

CIVIC ENGAGEMENT

CIVIC ENGAGEMENT

Problem

Core Academic Proficiencies

- Science & Literacy

- History & Civilization

- Art & Culture

- Digital Literacy, Technology & Media

Using Our Best (the individual learner)

- Self-efficacy

- Self-regulation

- Resilience

- Taking responsibility

Self-modifying self-regulating

- Critical thinking

Working With Others (your relationships)

- Collaboration

- Communication

- Open-mindedness

- Empathy

- Reliability building

- Resilience building

- Leadership

Improving Our World (our community/our world)

- Problem-solving

- Civic engagement

- Entrepreneurship

- Global competence

- Respect for the Environment

Now, take a look at your results in the different criteria to determine if you are ready to move on to the next phase. For the criteria where you are least confident, trying reworking out your facilitator for coaching or talk to another colleague or team for advice. If you have more than two areas where your team is confident, work to improve before moving on.
**REFLECTION ON PROCESS**

Independently, reflect on how your team is working together by answering the questions below. Then share your reflections as a team:

- What is the most important insight you gained during this phase of the design challenge?

- About which part of this phase of the design challenge do you feel most confident?

- About which part of this phase of the design challenge do you feel least confident? What is your team going to do to improve your confidence about this phase?

- What was the most difficult part to collaborate on for your team?

- How can you improve how your team works together in the next phase?

**SHARE OUT OF PROCESS**

When you have completed this reflection and are ready to transition to the next phase of the design challenge, share with your facilitator, school leader and/or colleagues to get feedback on your progress thus far.

They can use the feedback framework of I like, I wish, I wonder to provide helpful ideas for where you can improve and where your work is strongest. Write down the feedback you receive below.
**INTRODUCTION**

**OBJECTIVES OF YOUR COMMUNITY PHASE**

The goal of this phase is to help you develop two approaches to communicating your idea and take ownership of your solution and why it has the potential to meet the stakeholder's needs and close the learning gaps identified. The storytelling approach is focused on sharing a stakeholder-specific way of communicating about your ideas. This pitch approach to communicating your ideas is focused on why your ideas will have the greatest impact on holistic learning outcomes.

At the end of this phase, you should be clear on how to plan to communicate about your solution and its potential.

**MINDSETS OF TELL YOUR COMMUNITY PHASE**

- Get inspired by people
- Feedback is a gift to improve your ideas
- Many cycles of testing are necessary to develop an idea

**COMMUNITY OF PRACTICE OUTCOMES**

- Core Academic Proficiencies
  - Literacy
  - Core Academic Proficiencies
- Holistic Learning
  - Core Academic Proficiencies
  - Being Our Best
  - Working With Others
  - Improving Our World

**SUCCESS MEASURES**

- Oral Communication: 100 points
- Written Communication: 100 points
- Work Ethic: 100 points

**PRACTICE SESSIONS**

1. **Storytelling**
   - WHAT IS THIS TOOL?
   - Human-centered design is an approach to creative problem-solving that pairs the needs and emotions of the stakeholder at the center of the process. Because we are focused on the needs and emotions of the stakeholder, we like to structure our process of pitching ideas as a story with a main character: a narrative and a story arc - a beginning, middle, and end. Storytelling is a worksheet designed to help you create a human-centered story about your design project.
   - WHAT IS YOUR GOAL?
   - By using character-driven storytelling as a framework for synthesizing your learning and pitching a new concept, we find that we create more compelling and engaging pitches.

2. **Pitching**
   - WHAT IS THIS TOOL?
   - Pitching is a worksheet designed to help you communicate why your solution will have an impact for the stakeholder and the student's holistic learning outcomes.
   - WHAT IS YOUR GOAL?
   - When you have completed this tool, you will be ready to pitch your ideas to your community as well as potential funders.
Tell someone about your primary stakeholder.

**JOE, AN ENERGETIC MIDDLE SCHOOL STUDENT WHO DOES NOT SUCCEED ACADEMICALLY IN SCHOOL BUT LOVES PLAYING SPORTS**

**MY SISTER TOLD ME SHE USES ALGEBRA WHEN SHE IS ORDERING FOR OUR FAMILY STORE.** - JOURNEY MAP

**AN AFTER SCHOOL CAREER EXPLORATION PROGRAM WHERE STUDENTS LIKE JOE MEET LOCAL BUSINESS LEADERS WHO SERVE AS MENTORS FOR THEM. THE MENTORS WILL HELP THE STUDENTS MAKE CONNECTIONS BETWEEN WHAT THEY ARE LEARNING TODAY AND THE SKILLS THEY WILL NEED THEIR CAREERS.**

**WHAT MATTERED MOST TO JOE WAS THE RELATIONSHIP WITH A SUCCESSFUL LOCAL LEADER. NOT NECESSARILY THAT THEY HAD SHARED CAREER INTERESTS.**

**5 SO NOW WE HOPE TO IMPLEMENT.**

What context are you going into, and what are you hoping to see as a result?

A FUTURE-ORIENTED MENTORING PROGRAM FOR MIDDLE SCHOOL STUDENTS TO HELP THEM BUILD THEIR SKILLS WITH ADVOCATING FOR THEMSELVES WITH ADULTS. THIS WILL INCREASE HOLISTIC LEARNING OUTCOMES FOR STUDENTS BY HELPING THEM TO DEMONSTRATE MORE SELF-EFFICACY.

Tell more about your primary stakeholder.

**WE NOTICE...**

What was the surprising observation you made? What did you discuss?

**WE DISCOVER...**

What concept did you create? What assumptions were you testing in your prototypes?

**WE CREATE...**

How have your prototypes evolved? What have you learned about your concept?

**WE LEARN...**

How have your prototypes evolved? What have you learned about your concept?

**WE HAVE...**

Tell us more about your primary stakeholder.
Pitching

1. WHAT IS YOUR IDEA?
A FUTURE-ORIENTED MENTORING PROGRAM

2. WHO IS YOUR AUDIENCE FOR YOUR PITCH?
SCHOOL: 2030

3. WHAT IS THE PROBLEM?
Why is a problem worth solving?
Who is involved? What are the consequences if we go unstudied?

4. WHAT IS YOUR SOLUTION?
How are you going to address this problem in a new and impactful way? What is involved in your solution?

5. WHAT IS THE POTENTIAL LONG-TERM IMPACT?
How will your solution go on to create positive consequences for at least 20 students in the near-future?

6. WHY DOES THIS MATTER?
What are the motivations for solving this problem?

7. WHAT IS THE TIMELINE?
Can you implement a pilot of this idea in the next two school terms? If so, how? If not, why?

8. WHAT RESOURCES DO YOU NEED?
What personnel might you need?
What materials might you need?

9. ENOUGH MONEY TO FUND A PROGRAM MANAGER
BASED ON WHAT YOU SAID ABOVE, HOW MUCH FINANCIAL SUPPORT DO YOU NEED?
What is the budget for this initiative? $5,000

10. WHAT IS THE POTENTIAL LONG-TERM IMPACT?
How will your solution go on to create positive consequences for at least 20 students in the near future?

1. WHAT IS YOUR IDEA?
A FUTURE-ORIENTED MENTORING PROGRAM

2. WHO IS YOUR AUDIENCE FOR YOUR PITCH?
SCHOOL: 2030

3. WHAT IS THE PROBLEM?
Why is a problem worth solving?
Who is involved? What are the consequences if we go unstudied?

4. WHAT IS YOUR SOLUTION?
How are you going to address this problem in a new and impactful way? What is involved in your solution?

5. WHAT IS THE POTENTIAL LONG-TERM IMPACT?
How will your solution go on to create positive consequences for at least 20 students in the near-future?

6. WHY DOES THIS MATTER?
What are the motivations for solving this problem?

7. WHAT IS THE TIMELINE?
Can you implement a pilot of this idea in the next two school terms? If so, how? If not, why?

8. WHAT RESOURCES DO YOU NEED?
What personnel might you need?
What materials might you need?

9. ENOUGH MONEY TO FUND A PROGRAM MANAGER
BASED ON WHAT YOU SAID ABOVE, HOW MUCH FINANCIAL SUPPORT DO YOU NEED?
What is the budget for this initiative? $5,000

10. WHAT IS THE POTENTIAL LONG-TERM IMPACT?
How will your solution go on to create positive consequences for at least 20 students in the near future?
**TELL TRANSITION SUMMARY**

### TELL YOUR COMMUNITY PAGE
Use the Tell Your Community summary page to gather up the work you completed during this phase. Reflecting on your holistic learning outcomes (see the right side of this page) so you summarize this information. Take opportunity now to make changes as needed.

### WORKSHOP #4 TOOLS

#### #1 Storytelling
Summarize the story you wrote about your stakeholder, their problem and why your solution adds what are the most important ideas that you want to share with your community and potential funders.

#### #2 Pitching
Summarize the pitch you wrote about your stakeholder, their problem and why your solution adds. What are the most important ideas that you want to share with community and potential funders?

### LAUNCH WORKSHOP SUMMARY

**LAUNCH**

**SUMMARY**

Tell Your Story

What is the best pitch outline your team wants to users prepare to present to the Schools2030 initiative?

How does your team's pitch communicate why you believe your concept will improve the holistic learning outcomes for your students?

### TRANSITION ALIGNMENT

In order to seek alignment as a team, share each of your summary pages and use the questions below to narrow your team’s focus so that you can move on to the next phase. Be sure to align your ideas and actions. Let each team read their summary response without interruption or commentary from the team. If there are differing views and ideas from team members, ask questions to gain understanding. To questions like “Can you share more information about how you came to these ideas?” Tell me more about that...” not only helps team members feel heard but also ensures that everyone understands the requirements of your design goals, but you may align on the ideas below then move on:

1. Your team’s ideas about the Schools2030 initiative.
2. Your team’s ideas about the Schools2030 initiative.
3. Your team’s ideas about the Schools2030 initiative.
4. Your team’s ideas about the Schools2030 initiative.

### CRITERIA: FORMING TO THE NEXT PHASE

Use the rubric below to assess your team’s readiness for the next phase of the process and are you ready to move into the next phase. Circle the description that most represents your team’s progress. For the Project Status section at the bottom of the rubric, consider as you learn the progress you’re making toward.

- Not ready
- Ready with translation
- Ready with confidence

**OUTCOMES**

- Core Academic Proficiencies
- Nutrition
- Arts & Culture
- Digital Technology & media
- Health & Nutrition
- Communication
- Collaboration
- Community
- Critical Thinking
- Creativity
- Health & Nutrition
- Communication
- Collaboration
- Community
- Critical Thinking
- Creativity

**HOLISTIC LEARNING OUTCOMES**

- Core Academic Proficiencies
- Nutrition
- Arts & Culture
- Digital Technology & media
- Health & Nutrition
- Communication
- Collaboration
- Community
- Critical Thinking
- Creativity
**REFLECTION ON PROCESS**

Independently, reflect on how your team is working together by answering the questions below. Then share your reflections as a team.

- What is the most important insight you gained during this phase of the design challenge?

- About which part of the phase of the design challenge do you feel most confident?

- About which part of the phase of the design challenge do you feel least confident? What is your team going to do to improve your confidence about this phase?

- What was the most difficult part to collaborate on for your team?

- How can you improve how your team works together in the next phase?

**SHARE OUT OF PROCESS**

When you have completed this reflection and are ready to transition to the next phase of the design challenge, share with your facilitator, school leader and/or colleague to get feedback on your progress thus far.

They can use the feedback framework of I like, I wish, I wonder to provide helpful ideas for where you can improve and where your work is strongest. Write down the feedback you receive below.

**CONCLUSION**

SCHOOLS 2030 HUMAN-CENTERED DESIGN TOOLKIT
CONCLUSION

You made it! You’ve completed your design challenge and are ready to pitch your idea to the Schools2030 team. We hope you learned a lot throughout the process, both about your school and yourself.

We wanted to give you an opportunity to reflect on what you learned throughout the challenge. Please take a few moments to reflect on your experience.

HUMAN-CENTERED DESIGN MINDSETS

• Work together to understand the context
• Look carefully to understand potential problems and opportunities
• Stay optimistic that you can solve the problem
• Hold back on solving the problem until the time is right
• Get inspired by people – active listening is a source of creative inspiration
• Put aside biases and assumptions about what you think the problem is – listen to the stakeholders.
• Seek new perspectives on old problems
• See opportunities in constraints
• Get comfortable with navigating contradictory information
• Many ideas lead to good ideas
• Defer judgment and criticism of ideas until the time is right
• Idea generation is not the time for evaluating ideas
• Brainstorming is a collaborative team activity
• Allow yourself to think of wild ideas
• Prototype early and often in order to learn about your idea
• Start small to make big change
• Believe don’t sell
• Many cycles of prototyping are necessary to develop an idea
• Feedback is a gift to improve your idea.

CONGRATULATIONS!

MINDSETS REFLECTION

What mindsets are you most comfortable with?

What mindsets are you least comfortable with?

What mindsets do you want to work on?

PROCESS REFLECTION

• What is the most important insight you gained during the design challenge?
• How will the way of working change the way you work on a day-to-day basis?
• About which part of the design challenge do you feel most confident?
• About which part of the design challenge do you feel least confident?
• What do you hope to do next using human-centered design?
• How will this way of working change the way you work on a day-to-day basis?
APPENDIX I

HOLISTIC LEARNING OUTCOMES DEFINITIONS

Core Academic Proficiencies
The level of competence in the multiple complex academic areas that a student needs to achieve in order to lead a successful, productive and fulfilling life.

Literacy: Learners have the ability to engage with others verbally in order to communicate meaningfully. Learners have the ability to express thoughts, feelings and ideas related to norms, values, meanings, and limitations. Learners demonstrate respect for themselves, others and the environment.

Digital literacy, technology and media:

• Taking responsibility: Learners have the ability to understand one’s role and act on the opportunity to create market added initiatives and overcome and resolve environmental problems.

• Respect for the Environment: Learners understand their impact on the natural world, show concern for environmental issues and action to protect natural resources for a sustainable future. Learners have a sense of responsibility, and actively participate in protecting and resolving environmental problems.

Humanities: Learners have the ability to pursue knowledge, understanding and competency in all the major arts and related to communication, computation and expression. Learners have the ability to analyze sources of information and determine if they are trustworthy and appropriate.

• Self-awareness: Learners develop the ability to reflect on their thoughts, recognizing their beliefs, biases, and feelings and gaining an understanding of their behavior. Learners practice self-reflection and self-awareness. Giving birth to new ideas.

• Literacy: Learners have the ability to pursue knowledge and understanding of the natural and social world following a systematic methodology based on evidence. Learners have the ability to apply this knowledge to understanding the natural and social world, in order to produce new knowledge.

Humanities:
Learners have the ability to pursue knowledge and understanding of their humanities. To express their value and culture following a systematic methodology based on evidence. Learners have the ability to express their humanities and make connections with others.

• Self-regulation: Learners have the ability to regulate their emotions and behaviors. Learners have the ability to modulate their emotions and behaviors based on the context they are in.

• Critical thinking: Learners have the ability to engage in critical thinking, applying analysis, evaluation, and judgment to interpret information in a variety of contexts.

• Creativity: Learners have the ability to imagine new possibilities and explore alternative perspectives and values to their thinking and decision making processes.

• Taking responsibility: Learners have the ability to understand one’s role and act on the opportunity to create market added initiatives and overcome and resolve environmental problems.

• Respect for Diversity: Learners understand their impact on the natural world, show concern for environmental issues and action to protect natural resources for a sustainable future. Learners have a sense of responsibility, and actively participate in protecting and resolving environmental problems.

• Self-regulation: Learners have the ability to regulate their emotions and behaviors. Learners have the ability to modulate their emotions and behaviors based on the context they are in.

• Critical thinking: Learners have the ability to engage in critical thinking, applying analysis, evaluation, and judgment to interpret information in a variety of contexts.

• Creativity: Learners have the ability to imagine new possibilities and explore alternative perspectives and values to their thinking and decision making processes.

• Taking responsibility: Learners have the ability to understand one’s role and act on the opportunity to create market added initiatives and overcome and resolve environmental problems.

• Respect for Diversity: Learners understand their impact on the natural world, show concern for environmental issues and action to protect natural resources for a sustainable future. Learners have a sense of responsibility, and actively participate in protecting and resolving environmental problems.

• Self-regulation: Learners have the ability to regulate their emotions and behaviors. Learners have the ability to modulate their emotions and behaviors based on the context they are in.

• Critical thinking: Learners have the ability to engage in critical thinking, applying analysis, evaluation, and judgment to interpret information in a variety of contexts.

• Creativity: Learners have the ability to imagine new possibilities and explore alternative perspectives and values to their thinking and decision making processes.

• Taking responsibility: Learners have the ability to understand one’s role and act on the opportunity to create market added initiatives and overcome and resolve environmental problems.

• Respect for Diversity: Learners understand their impact on the natural world, show concern for environmental issues and action to protect natural resources for a sustainable future. Learners have a sense of responsibility, and actively participate in protecting and resolving environmental problems.