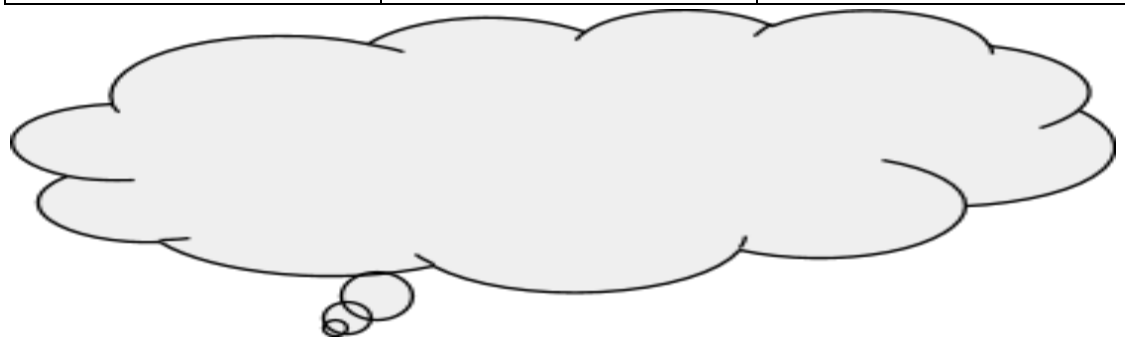
GNRG BOOTCAMP DEEP DIVE

(adapted from IDEO's *Design Thinking Toolkit for Educators*)

The Process Guide

Discovery	**Interpretation**	**Ideation**	**Experimentation**	**Evolution**
I have a challenge. How do I approach it?	I learned something. How do I interpret it?	I see an opportunity. What do I create?	I have an idea. How do I build it?	I tried something new. How do I evolve it?
1. Understand the Challenge	4. Share Stories	7. Brainstorm	9. Create a Prototype	11. Integrate Feedback
2. Identify Sources of Information/Inspiration	5. Define Insights	8. Reality Check	10. Get feedback from Users	12. Identify what's Needed
3. Learn from Individuals, Groups, Resources	6. Make Insights Actionable			



HOW MIGHT WE...?

1.UNDERSTAND THE CHALLENGE - A clearly defined challenge will guide your questions and help you stay on track throughout the process. Spend time with your team to create a common understanding of what you are working toward.

1.1 collect thoughts **As a team, collect and write down thoughts about your challenge. Start with a broad view: ask yourself why people might need, want, or engage with your topic.**	
1.2 establish constraints **Make a list of criteria and constraints for the challenge. Does it need to fit into a certain timeframe? Can it be integrated with an existing structure or initiative?**	
1.3 frame the challenge **Based on the thoughts you have collected, frame the challenge as one sentence starting with an reminded of your focus action verb, such as: "create," "define," or "adapt."** **Or, phrase the challenge as an engaging and imaginative question starting with:** **"What if...?"** **Keep rewriting your statement until it feels approachable, understandable and actionable to everyone on the team.**	

2. Identify Information/Inspiration – Inspiration is the fuel for your ideas. Information is what you need to learn from multiple perspectives and to explore the unknown.

2.1 Imagine interesting people to meet Draw a map of all the people involved in your topic. Think of characteristics that would make them interesting to meet. As a team, choose who you want to learn from. Plan how to get in contact with them.	
2.2 Make a list of activities you want to do Choose which activities will best help you learn and get inspired... » Learn from groups » Learn from experts » Learn from peers » Seek inspiration in new places	
2.3 Immerse Yourself In Context A first-hand observation is great preparation for your field interviews. Approach your observation with an open mind and imagine this as the first time of you have gone through this experience. Look for details you may have overlooked before. ● Plan the observations - “3 What Questions” (what, so what, now what) are a good starting place ● Explore and take copious notes ● Capture/Organize all you have experienced. Document your thoughts	

3. Learn from individuals/groups/resources – Spending time with people on their own allows you to deeply engage with and learn from them. Guide the conversation to gain a rich understanding of their thoughts and behaviors.

Create a list of questions and conversation prompts. Field research activities are an opportunity to take a new perspective. Treat your conversation partner as an expert. Try not to make participants feel that you are more knowledgeable than they are, particularly when you are speaking with children.	
Often, interviews will take an unexpected turn and you will learn something you did not expect to hear. Go with the flow and **let your participant lead the conversation.**	
Look for contradictions. What people say and what they actually do is often not the same thing. In there lies the opportunity to create something really new. Mind the gap and you may mine innovation.	

4. Share stories - Share what you learned from your research as stories, not just general statements. This will create common knowledge that your team can use to imagine opportunities and ideas.

Set up a space and time to share stories, one at a time. no generalizations. no judgements.	
Capture information in small pieces. use Post-it notes, whiteboards	
Surround yourself with stories and ideas	

5. Define Insights - Insights are a concise expression of what you have learned from your research and inspiration activities. They are the unexpected information that makes you sit up and pay attention. Insights allow you to see the world in a new way and are a catalyst for new ideas.

1. Look for connections between stories, patterns, themes	
2. Dig deeper	
3. Get input from the outside Explain the themes to someone who is not part of your team. Learn from their feedback	

6. Make insights actionable - Insights only become valuable when you can act on them as inspiring opportunities. Turn them into brain-storm questions, the springboard for your ideas.

1. Develop "how might we...?" statements Create generative questions around your insights. Start each statement with "How might we...?" or "What if…?" as an invitation for input, suggestions and exploration. Generate multiple questions for every insight. Write them in plain language, simple and concise.	
2. choose brainstorm questions Select three to five of these questions for your brainstorm session. Trust your gut feeling: choose those questions that feel exciting and help you think of ideas right away. Also, select the questions that are most important to address, even if they feel difficult to solve for.	

7. Brainstorm - Brainstorming is a great activity to generate fresh thoughts and new energy. Create a safe and positive atmosphere for your brainstorm so the team can come up with all kinds of wild ideas.

Rules of the Brain Storm 1.Defer judgement. There are no bad ideas at this point. 2.Encourage wild ideas. even if an idea doesn't seem realistic, it may spark a great idea for someone else. 3.Build on the ideas of others. Think "and" rather than "but." 4.Stay focused on topic. To get more out of your session, keep your brain-storm question in sight. 5.One conversation at a time. All ideas need to be heard, so that they may be built upon. 6.Be visual. Draw your ideas, as opposed to just writing them down. Stick figures and simple sketches can say more than many words. 7.Go for quantity. Set an outrageous goal—then surpass it. The best way to find one good idea is to come up with lots of ideas.	Velcro pants!!!!
Select Promising Ideas To get a sense of which brainstorming ideas generate excitement, let everyone on the team vote on their favorites while they are still fresh in their minds.	
Prototype. pick two ideas, split your team into two and build, sketch, hack a prototype of the ideas and share with your team.	

8. Reality Check - So far, you have (hopefully) been developing your idea without giving much thought to the constraints you may face while attempting to realize it. It makes sense to now do a reality check: look at what's most important about your idea and find ways to evolve and develop it further.

Examine what is at the core of your ideas. What is the essential need ? What gets you excited about your favorite idea?	
List potential and probable constraints. -what's missing? -what's the biggest obstacle? -who would oppose?	
Combine ideas and constraints and evolve your thinking	

9. Create a Prototype - Prototypes enable you to share your idea with other people and discuss how to further refine it. You can prototype just about anything. Choose the form that suits your idea best from the list below.

Create a storyboard Create a story Draw a diagram Build a model to share	
Create any sort of tangible representation of your idea **that you can share and learn from.**	

10. Get feedback from users - The most important ingredient in a feedback conversation is honesty: people may feel shy about telling you what they really think of your idea if they know that you are very invested in it. Create a setting that encourages an open conversation.

Invite honesty and openness	
provide multiple prototypes	
stay neutral and adapt on demand	

11. Integrate Feedback - Feedback is invaluable to developing an idea, but can also be quite confusing. It may be contradictory, or may not align with your goals. Sort through the responses you receive and decide on what to integrate in your next iteration.

make time and space to reflect on feedback	
Share your impressions of the feedback: » What did participants value the most? » What got them excited? » What would convince them about the idea? » Which parts would participants like to improve? » What did not work? » What needs further investigation?	
Capture ideas and prepare for next iteration	

12. Identify what's needed - In order to realize your concept, you will need various resources and capabilities, namely materials, money, time and people. Specify what exactly it will take to make your idea come to life.

specify Materials	
calculate Funds	
estimate Timeframes	
identify VIPs	