

WHAT IS DESIGN THINKING & HOW DOES IT HELP KIDS

We've all done it. Have you ever sat down to consider what takes priority for a day's work? Rarely do we consider the steps that lead us to beginning and finishing a task or project.

Design Thinking is the name, or methodology, given to the steps we use everyday to plan and solve problems. While adults use these problem solving skills professionally, most kids and youth are still in the formative stages of this skill development.

The process of Design Thinking was brought to the mainstream by IDEO and Stanford's d.school (founded by David Kelley). It helps people think creatively to solve problems and be more imaginative for designing almost anything! We know kids are imaginative, but this process helps funnel that imagination to create a more fluid and concise product or outcome. This helps them be more efficient and the quality of their work (or thinking) improves.

The best part is this method has life long effects. The younger the child, the better! This Design Thinking method is their "thinking-toolkit". Kids can use it to solve almost any problem and is a fundamental piece of the learn by making or maker-centric pedagogy which is the foundation of Brilliant Labs teachings.

NATURAL CODE

DESIGN THINKING PROCESS GUIDING QUESTIONS

CALL TO MAKE

Mathematic is all around us--especially in nature! Where do you see examples of patterns in nature? Look closely at plants and draw or take photos of what you discover? How can these patterns be so consistent within nature?

EMPATHIZE

Look at nature up close and from a distance. Where do you see patterns and how are they different when you look at a whole plant versus a small part of one? How does noticing little things like this help people to appreciate and find interest in learning about the natural world? How are flowers and computer code similar? How could you use a pattern to create a customized pattern in Scratch?

DEFINE

What do you need to take into consideration when coding your own artistic patterns? Who is your art intended for? What are things that they will appreciate about the art and patterns? Is there a medium other than Scratch that would help you reach your goals more effectively? What are the concepts you will need to learn more about? Will you create a pattern based on something already in nature, or keep it original? Can you find something in nature to use as inspiration for your art?

IDEATE

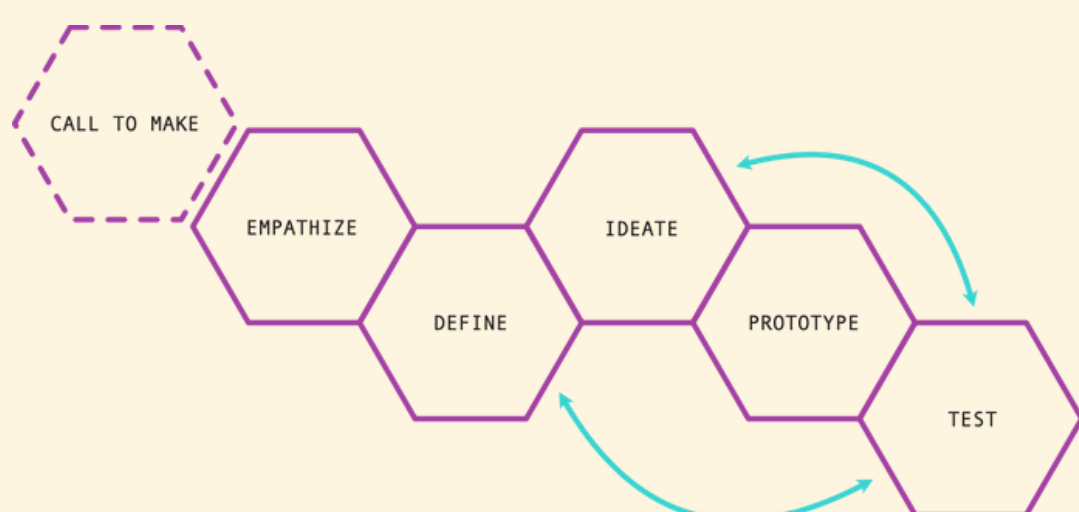
What is it about the Fibonacci sequence that makes it a visually appealing pattern? How can you use that information when coming up with your own patterns? Take the values of the fibonacci sequence and alter them slightly. How can altering other patterns help you make an original? What are other common patterns that we see in natural or human-made structures? What is it about these shapes and sequences that make them appealing to look at?

PROTOTYPE

Create a Scratch program that draws or visualizes patterns to create original artwork. Is your pattern similar or unique to Fibonacci's? Make changes to your design as you prototype. How do the changes affect the pattern it creates?

TEST

Were you successful in creating something unique? Ask others for feedback on your creation. How can you use this feedback to improve your design?



“Deep empathy for people makes our observations powerful sources of inspiration.”
—David Kelley