# #MakerFun DAILY CHALLENGE

**Join us every week day at 10am AST for a new Make-At-Home activity & 1pm AST for an Outdoor activity for a Digital Learning skill while schools are closed.**

## HOW TO CREATE TEACHABLE MOMENTS FOR KIDS

A teachable moment is an unplanned, or intentionally placed, learning opportunity. These can happen anywhere and at anytime. They provide parents, guardians, and teachers the chance to help children learn new concepts and deepen their understanding of previously acquired knowledge. This can also be very useful when considering the design process as students can be more informed as they develop future iterations.

Parents, guardians and teachers have learned to watch for these moments. They listen and pay close attention ready to pounce with questions or thoughtful discussion at any time. We can create these moments especially when kids are working on a project or doing their homework by asking open ended questions. More importantly we need to be ready to explain and discuss the 'why' behind the child's answer and encourage them to research and dig deeper. This 'why' is the key to creating the teachable moment to better decode the world they live in.

Sometimes these questions and discussions can lead to questions that adults can't answer and this is the golden opportunity to model how to learn instead of what to learn! When you don't have the answer it gives kids the chance to learn alongside you: "That's a great question! Let's look it up together!" This builds confidence because it's ok that we don't always have all the answers. More importantly, it gives kids the sense of pride to learn that we are all life-long-learners.

# BINARY CALLIGRAPHY TEACHABLE MOMENT QUESTIONS

**Binary codes carry information, our DNA carries our biological information in the form of a code. How can understanding computers help us understand ourselves?**

**What are some similarities and differences between computer codes and biological codes?**

**Create a physical activity that includes binary expression.**

**How can we use code to encourage positive habits among people?**

**Research the history of the binary number system. What was the system used for? What is it used for today?**

**If you were to scale your binary calligraphy what would you do? How will you measure the canvas?**

**The Binary Number System is a form of counting that only uses the numbers 1 and 0. In a binary number each "place" represents a power of 2.**
**For example:**
**1 = 2power 0= 1**
**10 = 2power1 = 2**
**Can you complete the following sequence?**
**100 = 2power2 = _____**
**1000 = 2power3 = _____**
**10000 = 2power4 =_____**
**100000 = 2power5=_____**

**Let's make ASCII art. ASCII is a picture created by characters from the alphabet. There are specific codes for each letters. Create your own art piece.**

**Binary can be used to create music.You can find examples on the web. Find a piece of classical music that is based on binary composition.**

**A haiku is a poem with three lines; the first line has five syllables, the second line will have seven syllables, and the last line will have five syllables.Create a haiku with binary calligraphy to share a message about change.**

**Creating a binary calligraphy mosaic is a form of visual poetry. There are many different forms of visual poetry. Research one that interests you and recreate your poem - or create a new one - in that style.**

**Other codes that have been used in history are:Braille and Morse Code have been important parts of history. Create a morse code accessory that expands on your chosen SDG message or includes the SDG number and/or title.**