NATURAL STEM CHALLENGE INSTRUCTIONS

Instructions: Try to use as many natural items as possible such as sticks, leaves, rocks, bark, reeds, and anything else you have around the area! Go on a nature hunt and take a paper bag to collect goodies.

You may need to sparingly use string or twine, but please remember not to litter and bring these extra supplies back inside!

Do your best not to use any man-made materials!

Encourage kids to not pick leaves off of trees or break branches off of trees! Use items that are already on the ground as much as possible!

LITTLE BINS FOR LITTLE HANDS

BUILD A FORT

Challenge: To create some shade on this hot day, you need to build a fort you can sit in comfortably.

Use natural materials to build your structure.

DESIGN A MODEL HOUSE

Challenge: Design and build a model house out of only materials found in nature. Can you add a working door? How does your house stand up to the weather over time?

DESIGN A STICK RAFT

Challenge: Can you design and build a stick raft that floats! What could you use for a sail? Will your stick raft hold a load of rocks? If so, how many rocks will it hold before taking on water? If possible, take your stick raft to a small stream.
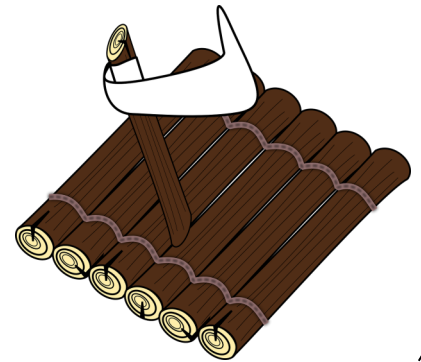
ART 3 NATURE

Challenge: Get creative and add art to your nature finds! Build a sculpture, make a picture, or design a mandala with nature. Can you make a self-portrait or build a rock sculpture?
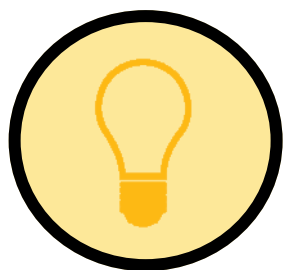
STEM Steps to Success

Observe/Ask
- What is the problem?
- How have others solved the problem?
- What are the limitations/guidelines?
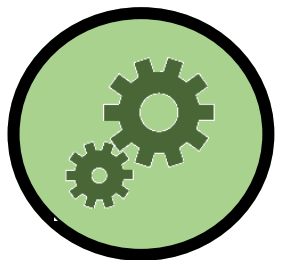- Who can help me solve this problem?

Collect
- What information will I need to solve this problem?
- What resources do I have or need to solve this problem?

Imagine
- How can I solve this problem?
- Have I found an "out of the box" solution?
- Do I have more than one solution?

Plan
- What materials do I have/need?
- What steps will I take to solve this problem?
- What could go wrong?

Create
- I will test my plan!
- I will take notes of my process/observations!
- I will draw/take pictures as I work, for reference later!

Improve
- I will reflect on my design.
- What changes can I make to improve my plan/solution?
- What does my data tell me about my first attempt?
- I can create another plan and retest!

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