




STEM Activities

Grades K–5, Week 1

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A collection of light blue line-art icons including a beaker with bubbles, leaves, and an atom model.

Use this packet of activities to help children practice their STEM skills.

For video lessons and additional resources, visit hand2mind.com/home-learning

What is a Makerspace?

A makerspace is an innovation space filled with materials designed to facilitate and encourage creative thinking. Young learners bring their design ideas to life through real-life, do-it-yourself building tasks.

In a makerspace, children must select their own building materials, allowing them to have a truly open-ended, creative, problem-solving experience. See below for a list of suggested items to use.

- Glue
- Paper
- Scissors
- Play-Doh
- Building bricks
- Markers
- Paint
- Paper towel rolls
- Paper cups
- Paper plates
- Paper bowls
- Straws
- Ribbon
- Coffee stirrers
- Craft sticks
- Cotton swabs
- Yarn
- Egg carton
- Tape
- Pipe cleaners
- Sponges
- Scraps from the recycling bin

What will my children learn through makerspace activities?

There are tons of benefits to makerspace activities! Here are a few of the things that children will learn:

- Empowers student curiosity and creativity
- Fosters independent problem-solving
- Builds confidence as children persevere through mistakes
- Provides the opportunity to innovate

Questions to ask your child while they are creating

Remind children that the design process is never complete!
Ask children questions such as,

- *How can I improve my design?*
- *Can I add another feature to my design?*
- *Can I rebuild this with another material?*

Reflecting is a critical part of the design process.
Ask children questions such as,

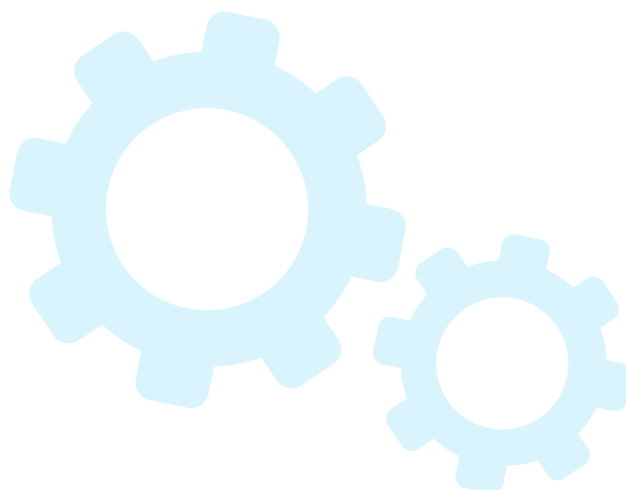
- *What could I have done better?*
- *What can I do differently next time?*
- *What did I learn during this activity?*

Encourage children if they get stuck during a design. As Thomas Edison once said, *"I have not failed. I've just found 10,000 ways that won't work."*

Makerspace Activities

Each of the below activities will take children anywhere from 10-30 minutes. Children should start by identifying which materials to use for their design. There are no right or wrong answers during makerspace—this is a time to

**explore, create and
design!**



Day 1

Design and build a miniature sled.

Any materials can be used in a makerspace! Which items in your house might work well to build a miniature sled?



Tip

Before building your sled, think about what kinds of materials slide easily.

Think Bigger

Build a ramp for your sled to go down. Then rework your sled so it slides very slowly down the ramp.

Day 2

Design and build a shelter that will keep a dog cool on a hot day.



Tip

Think about what types of building materials would provide shade to protect a dog from the sun.

Think Bigger

Rework your shelter to keep a dog warm on a cold day, too.

Day 3

Create a diorama, or model,
of the rainforest.



Tip

Before you start building,
research the types of plants
and animals that are found
in the rainforest.

Think Bigger

Add a camouflaged animal
to your diorama.

Day 4

Design and make a puzzle.



Tip

Before you make your puzzle, practice drawing your puzzle picture on a sheet of paper.

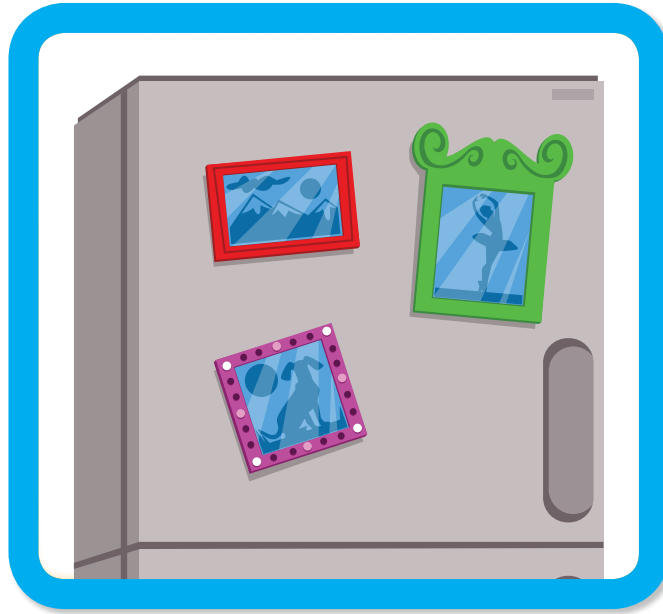
Think Bigger

Create a more difficult puzzle with more pieces.

Make a 3-dimensional puzzle.

Day 5

Make a decorative picture frame that you can put on your refrigerator.



Tip

Think about what will keep the picture inside the frame and how the frame will stick to the refrigerator.

Think Bigger

Add a stand to your frame so that it stands up on its own on a shelf.