

# TINKER/INVENTOR'S BOX

DISCOVERY PLAY ACTIVITIES WITH YOUR YOUNG CHILD

Every child is different, and these are only suggested adaptations and activities. Do what works best for encouraging your child's independent exploration during this suggested play activity. Consult your pediatrician, physical therapist (PT), and/or occupational therapist (OT) first.



**STEM Concept(s):** Design, Evaluate, Spatial Positioning, Structure & Properties of Materials

Creating an inventor's box does not have to be expensive. Add a variety of household items into a container of your choice. Encourage your child to **create/invent** something with the items inside of the box and share their creativity with you!

## STEM IDEAS/WORDS

- Size
- Colors
- Textures
- Materials
- Test/Experiment
- Tools
- Create/Invent

## MATERIALS

- Easy to open and close container (e.g., box, bin or bucket)
- Various items (see following pages for ideas)

## OPEN-ENDED QUESTIONS

- *What are you making/creating/designing/building? How will you create it?*
- *How does your creation work? What needs to happen to make your creation work?*
- *What would you do differently next time? What will happen if XYZ doesn't connect?*



# TINKER/INVENTOR'S BOX ADAPTATIONS

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## ENVIRONMENT

- If possible, limit background noise & distractions
- Use modified or flexible seating
- Place activity items on an anti-slip mat or in a container or tray
- Place objects within reach

## MATERIALS

- Have child's assistive technology ready and available, including augmentative & alternative communication (AAC) device and/or power wheelchair
- Have materials in various sizes, textures, and colors (see following page for ideas)

## INSTRUCTION

- Use a variety of methods of communication (e.g., sign language, gestures) to meaningfully engage children
- Provide a prompt, these can be verbal and/or visual cues, if struggling with an idea of what to build (see following page for ideas)



*Follow your child's lead and interests. Enthusiastically ask your child questions about what they are doing and what they like.*



*Answer your child's questions. If you do not know the answer, work together with your child to discover the answer.*



*Encourage your child to participate in the activity as much as possible. Praise your child's efforts and successes.*



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# MATERIALS & PROMPT IDEAS

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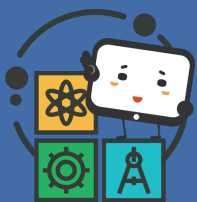
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## MATERIALS

- Ruler
- Empty water bottles
- Paper cups/plates
- Toothpicks
- Coffee filters
- Small sticks
- Pebbles
- Old t-shirts
- Seashells
- Packing materials
- Empty spice containers
- Rubber bands
- Journal
- Loose buttons
- Clothes pins
- Craft sticks
- Scissors
- Straws
- Pencil
- Pom poms
- Pipe cleaners
- Paper
- Paper clips/binder clips
- Yarn/string/rope
- Tape
- Small boxes
- Empty food containers
- Plastic lids
- Egg cartons
- Toilet/paper towel tubes
- Spools
- Broken/old toys

## PROMPTS

- Robot
- Rocket
- Wind chimes
- Art sculpture
- Car/Truck
- Garden trellis
- Pet/animal
- Plane
- Hanging mobile



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## ADDITIONAL ACTIVITY IDEAS

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- Check out these great books about engineering:
  - *Andrew Learns About Engineers* by Tiffany Obeng
  - *ABC's of Engineering* by Chris Ferrie & Dr. Sarah Kaiser
  - *Human Computer: Mary Jackson, Engineer* by Andi Diehn
  - *Rosie Revere, Engineer* by Andrea Beaty
  - *This Little Engineer. A Think-And-Do Primer* by Joan Holub & Daniel Roode

