

Explorers

“In the Construction Zone”

Week 4 Materials



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In the Construction Zone Materials Prep

For each *Explore It* theme, we'll let you know what materials are needed for each module (each day) of the theme, and we'll also let you know if there's materials prep you can do before the themed week kicks off. Ideally, it's great to do this prep together as a family!

Note that for nearly every activity, if you're missing a material or two, you'll likely be fine! These activities are designed to be flexible.

- We recommend that all Explorers (age 7-10) use an Explorer Notebook across the *Explore It* experience. If you can, get one they can decorate themselves!
- In Module 12, we will make virtual 3D designs using a program called [TinkerCAD](#). You will need a computer, laptop, or tablet, as well as an Internet Browser (Firefox, Chrome, etc.) This is a free program, but it requires that you set up an account. You may want to set up the account before Module 12. There will be a full tutorial video available in the module to follow.

Module 10 (Monday, July 27)

Activities: Measuring Warm-Up, Straw Structures, Design Your Own Clubhouse

- 1 Small ball (like a tennis ball)
- 1 Weight (books, notebooks, or something similar)

- 2 Pieces of paper (8.5 x 11)
- 5 Objects that you use everyday
- 50 Straws (paper or plastic)
- One of the following: Tape (1 roll), Paper clips (50), or Playdough/clay (1 can - about 4 oz.)
- Pencil
- Ruler or measuring tape
- Scissors
- Tape and/or glue

Module 11 (Tuesday, July 28)

Activities: Architecture Scavenger Hunt Warm-Up, Plan Your City, Engineer an Elevator

- 2 Small toys, figurines, or something similar to use as passengers
- Assorted craft supplies, such as craft sticks, pipe cleaners, brass fasteners, rubber bands, straws, paper clips, etc.
- Assorted recycled materials and/or LEGO/blocks/toys around your home
- Glue
- Pencil
- Recycled items, such as toilet paper and paper towel tubes, cereal boxes, yogurt containers, egg cartons, etc.
- Ruler or tape measure
- Scissors
- String, yarn, or fishing line
- Tape
- *Optional: A large sheet of cardboard or poster board to construct your city on*
- *Optional: Assorted craft supplies, such as construction paper, markers, crayons, pipe cleaners, straws, toothpicks, index cards, craft sticks, etc.*
- *Optional: Camera or phone with a camera*
- *Optional: Markers, crayons, or colored pencils*

Module 12 (Wednesday, July 29)

Activities: Demolition Warm-Up, TinkerCAD, Engineering Earthquake Resistant Structures

- A piece of cardboard, at least 12 inches x 12 inches / 30 centimeters x 30 centimeters
- Explorer Notebook or a piece of paper (2)

- Internet browser (Chrome, Safari, etc.)
- Laptop or Tablet
- Recycled materials such as cardboard, egg carton, tissue box, shoe box, etc.
- Scissors
- String, ribbon, yarn, or finishing line
- Tape (scotch or masking)
- Wrecking ball (golf ball, tennis ball, bag of coins, pebbles/rocks, etc.)
- Writing utensil
- *Optional: Books/a weight and a sock, bag, or pouch to hold the wrecking ball*
- *Optional: Markers, crayons, or colored pencils*
- **The following starred materials are for an engineering challenge. If you do not have these items, you can find similar ones to replace these with.**
 - Craft sticks*
 - Cups (paper, plastic, or yogurt containers)*
 - Index cards*
 - Paper clips*
 - Paper*
 - Playdough or clay*
 - Rubber bands*
 - Straws (paper or plastic)*
 - Toothpicks*
 - Yarn or string (12 inches / 20 centimeters each piece)*
- **The following materials are for one wrecking ball option in Module 12**
 - 1 Bucket/Pail
 - 1 Yardstick/Meter stick (or long stick you find outside or a pole that is safe)
 - 2 Binder clips or a rubber band

Compiled Materials, Modules 10, 11, & 12 (July 27-29)

- 1 Small ball (like a tennis ball)
- 1 Weight (books, notebooks, or something similar)
- 2 Pieces of paper (8.5 x 11)
- 2 Small toys, figurines, or something similar to use as passengers
- 5 Objects that you use everyday
- 50 Straws (paper or plastic)
- A piece of cardboard, at least 12 inches x 12 inches / 30 centimeters x 30 centimeters
- Assorted craft supplies, such as craft sticks, pipe cleaners, brass fasteners, rubber bands, straws, paper clips, etc.

- Assorted recycled materials and/or LEGO/blocks/toys around your home
- Explorer Notebook or a piece of paper (2)
- Glue
- Internet browser (Chrome, Safari, etc.)
- Laptop or Tablet
- One of the following: Tape (1 roll), Paper clips (50), or Playdough/clay (1 can - about 4 oz.)
- Pencil
- Recycled items, such as toilet paper and paper towel tubes, cereal boxes, yogurt containers, egg cartons, etc.
- Ruler or measuring tape
- Scissors
- String, ribbon, yarn, or finishing line
- Tape
- Wrecking ball (golf ball, tennis ball, bag of coins, pebbles/rocks, etc.)
- Writing utensil
- *Optional: A large sheet of cardboard or poster board to construct your city on*
- *Optional: Assorted craft supplies, such as construction paper, markers, crayons, pipe cleaners, straws, toothpicks, index cards, craft sticks, etc.*
- *Optional: Books/a weight and a sock, bag, or pouch to hold the wrecking ball*
- *Optional: Camera or phone with a camera*
- *Optional: Markers, crayons, or colored pencils*
- **The following starred materials are for an engineering challenge in Module 12. If you do not have these items, you can find similar ones to replace these with.**
 - Craft sticks*
 - Cups (paper, plastic, or yogurt containers)*
 - Index cards*
 - Paper clips*
 - Paper*
 - Playdough or clay*
 - Rubber bands*
 - Straws (paper or plastic)*
 - Toothpicks*
 - Yarn or string (12 inches / 20 centimeters each piece)*
- **The following materials are for one wrecking ball option in Module 12**
 - 1 Bucket/Pail
 - 1 Yardstick/Meter stick (or long stick you find outside or a pole that is safe)
 - 2 Binder clips or rubber bands