Makeshift *museum*

Empowering families to engineer mini-STEAM exhibits right in their homes. With these mini-exhibits, children are learning powerful skills they would experience at a children's museum.

Make-shift *museum*

JANUARY
MAKING A LIGHT TABLE

WHAT ARE WE LEARNING?

Children explore how light energy travels, and changes with a light table and translucent manipulatives. With the light table, children can investigate the fundamentals of light through construction, problem solving and dramatic play.

MATERIALS PROVIDED

- Cereal Box
- Parchment Paper
- Double Sided Tape
- Tissue Paper
- Paper Towel Rolls
- Translucent Sheets

MATERIALS NEEDED

- Christmas Lights or Phone Flashlight

STEP ONE

Cut out a large rectangle on the top surface of your cereal box.

STEP TWO

Tape parchment paper onto the cereal box to fill the rectangle with.

STEP THREE

Put the Christmas lights or Phone into the cereal box and turn it on.

STEP FOUR

Cut the paper towel rolls in quarters. Then tape tissue paper to cover the hole.

Watch an example of how to build a light table

GALLUP CHILDREN'S MUSEUM

Make-shift museum

FEBRUARY
MAKING A LITE BRITE

WHAT ARE WE LEARNING?

Children create designs using different colored pegs on their cardboard lite brite as they explore light and color. Using hand-eye coordination, grip, color naming, and color matching, children use their creativity to make beautiful patterns glow.

MATERIALS PROVIDED

- Black Foam Sheet
- Cereal Box
- Pegs

MATERIALS NEEDED

- Phone Flashlight

STEP ONE

Cut the rectangle out of the cereal box

STEP TWO

Tape the black foam sheet over the hole in the cereal box.

STEP THREE

Put a phone or flashlight in the middle of the cereal box.

STEP FOUR

Place the pegs into the black sheet foam holes to create a design.

Watch an example of how to build a projector

GALLUP CHILDREN'S MUSEUM

Make-shift museum

MARCH ROCKET LAUNCH

WHAT ARE WE LEARNING?

Children investigate how to turn potential energy into kinetic energy when they add the force of air. With the rocket launcher, kids can discover what can cause their rocket to shoot up in the air and ways to adjust their rocket for longer launches.

MATERIALS PROVIDED

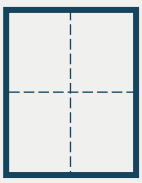
- Paper
- Paper with Triangle Outlines
- Straws
- Tape

MATERIALS NEEDED

- Scissors

STEP ONE

Cut the paper into quarter rectangles.



STEP TWO

Take one of the quarter sheets and roll it around the straw. Then tape it.

STEP THREE

Tape the top of the tube shut. Cut out the triangles and tape it to the bottom of the tube.

STEP FOUR

Place your rocket on the end of your straw. Blow on the straw and watch it launch.

Watch an example of how to launch a rocket.

GALLUP CHILDREN'S MUSEUM

Make-shift *museum*

APRIL MARBLE RUNNER

WHAT ARE WE LEARNING?

Children engineer a popular toy found in children's museums and stores. Marble runners are a great way for kids to learn velocity, director, and speed by manipulating the design of a marble runner.

MATERIALS PROVIDED

- Marbles
- Paper Plates with outlines
- Paper Towel Tubes
- Cardboard Base

MATERIALS NEEDED

- Scissors
- Tape

STEP ONE

Use the paper towel tube to trace circles in all the plates. Then cut out the holes.

STEP TWO

Put the Paper Towel Tube through two plates. Then separate the ends of the plates together.

STEP THREE

Continue step two until all the plates are taped together.

STEP FOUR

Place the marble at the top of the marble runner and watch it roll down.

Watch an example of how to build a rocket launcher

GALLUP CHILDREN'S MUSEUM

Make-shift museum

MAY
WIND TUNNEL

WHAT ARE WE LEARNING?

Children investigate how materials interact with wind direction and speed using a makeshift wind tunnel.

MATERIALS PROVIDED

- Embroidery Rings
- Cake Decorating Sheets
- Tape
- Cardboard
- Paper Cones
- Coffee Filters

MATERIALS NEEDED

- Scissors

STEP ONE

Roll the cake decorating sheets to the size of the embroidery ring and tape it.

STEP TWO

Put the embroidery ring on the ends of the cake decorating sheet to make a tube.

STEP THREE

Place the embroidery ring on the box and trace the circle. Then cut it out.

STEP FOUR

Place a hair dryer through the hole in the box and place the tube on top. Turn the hair dryer on and start the wind tunnel.

Watch an example of how to build a wind tunnel

GALLUP CHILDREN'S MUSEUM

Make-shift museum

JUNE
MAKING A PARACHUTE

WHAT ARE WE LEARNING?

Children investigate how materials interact with wind direction and speed with a parachute.

MATERIALS PROVIDED

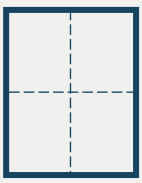
- Army Guy
- String
- Coffee Filter

MATERIALS NEEDED

- Scissors

STEP ONE

Cut the paper into quarter rectangles.



STEP TWO

Take one of the quarter sheets and roll it around the straw. Then tape it.

STEP THREE

Tape the top of the tube shut. Cut out the triangles and tape it to the bottom of the tube.

STEP FOUR

Place your rocket on the end of your straw. Blow on the straw and watch it launch.

Watch an example of how to build a parachute.

GALLUP CHILDREN'S MUSEUM