



KinderTown Summer Camp: Master Builders

August 7th–August 13th
Focus: Art, Math, History, and Science



Overview

Family Activity

- ✂ **Family Time Capsule:** Preserve your family's artifacts to celebrate your family today and in the years to come. Place items into an archival box; then stow it away in a cool, dark place. You can include artwork, school reports, and notes to your future selves. Consider adding mementos such as ticket stubs, a screenshot of a Facebook page, or a toy. Add a silica-gel pack (the kind that comes with new shoes) to absorb moisture, and together set a date for revealing it again in the future. *(History)*

Pre-Kindergarden – Early Elementary Activities

- ✂ **Hammer Away:** Develop gross motor skills by using a toy hammer to smash beads of water or hammer golf tees into the bottom of an egg carton, mounds of clay, foam trays, or into the ground. Place flowers (wild flowers, dandelion weeds, etc.) between a folded piece of paper to hammer into flower prints, or make baked cotton balls (see recipe) and have fun crushing them. *(Science)* ➡ See Activity Guide | Page 3
- ✂ **Boogie Balloons:** Use a fan and cylinder made from poster board to make a homemade dancing machine for balloons.



Start the fan on low, gradually increase the speed, and observe what happens. Experiment to see how many inflated balloons can "boogie" at one time. *(Science)*

- ✂ **Tiny Cup Challenge:** Use craft sticks and paper drinking cups to see if you can build a shape (square, rectangle, triangle, hexagon, etc.), a bridge, a skyscraper, or a tunnel. See what other structures your master builder can create. *(Art, Math, and Science)*

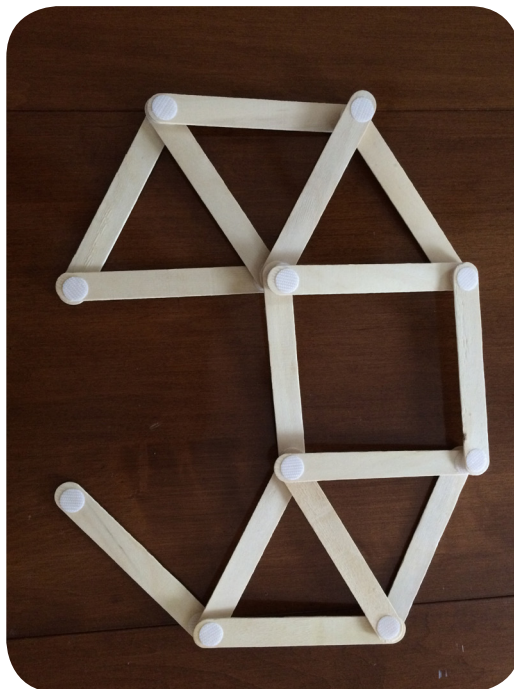




Overview Continued

Elementary Activities

✂ **Peel and Stick Structures:** Build a variety of two-dimensional designs, patterns, and structures by peeling self-sticking hook and loop dots (or strips) and then sticking the hooks to the ends of the front side of a wide craft stick and the loops to the opposite side. Repeat this process so there is an ample pile of sticks with which to build. Once a design is built, the sticks can be taken apart and reused to create something new. Optional: use colored craft sticks (which you can paint or color with markers) for a unique effect. *(Art and Math)*



✂ **Toothpick and Packing Peanut Towers:** Build a variety of two-dimensional designs, patterns, and structures by peeling self-sticking hook and loop dots (or strips) and then sticking the hooks to the ends of the front side of a wide craft stick and the loops to the opposite side. Repeat this process so there is an ample pile of sticks with which to build. Once a design is built, the sticks can be taken apart and reused to create something new. Optional: use colored craft sticks (which you can paint or color with markers) for a unique effect. *(Art and Math)*

✂ **Zip Line:** Race homemade rockets, airplanes, birds, or your own creations on homemade zip lines. Discover how the length and slope of the line affect how the items move. *(Art and Science)* ➡ See Activity Guide | Page 4

Upper Elementary Activities

✂ **Triangle Block Building:** Make your own colorful triangular paper blocks to build and test the strength of different structures. *(Math and Science)* ➡ See Activity Guide | Page 5-6

✂ **Mobile Bird Feeder:** Create a decorative mobile-inspired birdfeeder from items found in your back yard, recycling bin, and around the kitchen. *(Art)* ➡ See Activity Guide | Page 7-9

✂ **Cool Gadgets:** Make a simple catapult, a flying fish, and a super looper with simple supplies from around the house. For more detailed instructions watch Two-Point-Four's video by visiting <http://www.videojug.com/film/how-to-make-cool-gadgets> *(Science)*



Directions

- ➔ Master hammering skills with a toy hammer to smash water beads, hammer golf tees into the bottom of an egg carton, mounds of clay, foam trays, or into the ground. Place flowers (wild flowers, dandelion weeds, etc...) between a folded piece of paper to hammer into flower prints. Try the recipe for making baked cotton balls and have fun crushing them into pieces.
 - 📷 Post a photo on social media with **#KTbuild** of your results.
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Materials

- ➔ 1 cup flour
 - ➔ 1 cup water
 - ➔ Food coloring
 - ➔ Cotton balls
 - ➔ Medium bowl
 - ➔ Small containers
 - ➔ Spoons
 - ➔ Aluminum foil lined baking sheet or pan
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Directions

1. Preheat oven to 350° F.
2. Mix together the 1 cup of water and the 1 cup of flour in the large bowl.
3. Spoon the mixture into the smaller containers.
4. Add a few drops of food coloring to each container. Stir and mix well.
5. Place a cotton ball into each container.
6. Coat the cotton ball completely in the mixture.
7. Scoop the cotton ball onto the baking sheet.
8. Repeat to make to several cotton balls.
9. Bake in the oven for about 45 minutes.
10. The cotton balls will have a hard coating on the outside when ready.
11. Allow the cotton balls to cool thoroughly.
12. Let the smashing begin!

Note: If the outer coating is too hard or thick the smashing may require a real hammer. This can be done as a demonstration by an adult or with a small hammer that the child can manage easily at the parent's discretion.

Directions

- ➔ Race homemade rockets, airplanes, birds, or your own creation on homemade zip lines. Discover how the length and steepness of the line affect how the items move.
 - 📷 Post a photo on social media with **#KTbuild** of your zip line.
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Materials

- ➔ Paper tube
 - ➔ Craft supplies (paper, tape, markers, paint, feathers, duct tape, glue, craft sticks, etc.)
 - ➔ Fishing line or thread
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Directions

1. Create an original “racer” by decorating the paper tube as a car, bird, airplane, rocket, or other item with the craft supplies you have available. Allow to dry thoroughly if necessary.



2. Locate two sturdy objects to which you can secure the fishing line.
3. Secure the fishing line to one object.
4. Thread the racer on to the other end of the fishing line.
5. Secure the fishing line to the other object.
6. Slide the racer to one end of the fishing line (the side that is higher).



7. Release the racer and watch it zip across the line.



8. Repeat and experiment with different lengths of line and by changing the heights of objects to which it is secured.



Directions

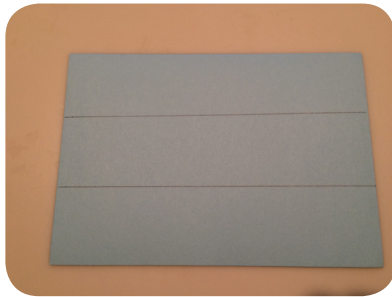
- ➔ Make your own colorful triangular paper blocks to build and test the strength of different structures.
 - 📷 Post a photo on social media with **#KTbuild** of your triangle block building.
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Materials

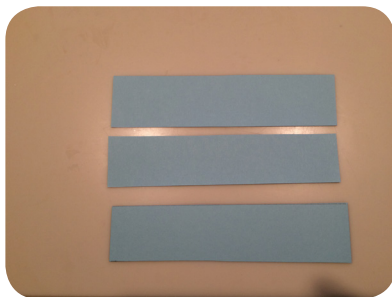
- ➔ 4 ½ x 6 ½ inch card stock (available at craft stores) or cut your own to these dimensions
 - ➔ Scissors
 - ➔ Tape
 - ➔ Pencil
 - ➔ Ruler
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Directions

1. Measure and mark 1 ½ inch increments along the shorter side of a card.
2. Draw 2 vertical lines from each mark down the card.



3. Cut along each line carefully. You should have 3 strips of paper.

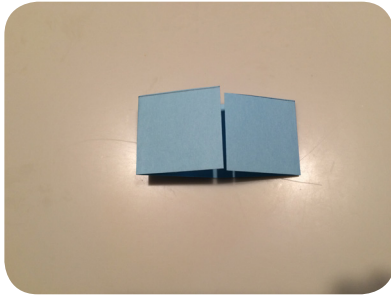


4. Fold each strip in half. Open the fold.





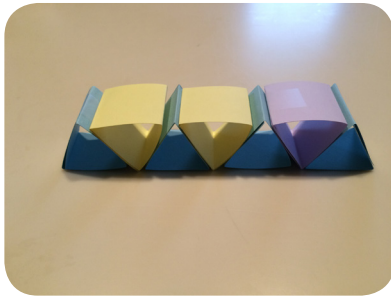
5. Fold the ends of each strip toward the center to create thirds.



6. Form into a triangle and secure with tape.



7. Repeat to form as many blocks as desired.
8. Cut several $4\frac{1}{2} \times 6\frac{1}{2}$ inch papers in half. These will serve as "shelves" between the rows.
9. Begin to stack a row of triangles.



10. Lay a "shelf" between rows for stability.
11. Continue to build and experiment with the blocks.



12. Test the structure to see if it can hold a ruler, cup, book, or other small item without collapsing.
13. If it does collapse, how could it be changed to hold the item?

Note: If the outer coating is too hard or thick the smashing may require a real hammer. This can be done as a demonstration by an adult or with a small hammer that the child can manage easily at the parent's discretion.



Directions

- ➔ Create a decorative, mobile-inspired bird feeder from items found in your back yard, recycling bin, and around the kitchen.
 - 📷 Post a photo on social media with **#KTbuild** of your mobile bird feeder.
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Materials

- ➔ Paper towel tube or a cardboard cereal box
 - ➔ Several sticks of different shapes and sizes
 - ➔ Corn syrup or molasses
 - ➔ Basting brush or paint brush
 - ➔ Bird seed
 - ➔ 2 open containers (one to hold the bird seed and one for the corn syrup)
 - ➔ Single hole punch
 - ➔ String or yarn
 - ➔ Tape
 - ➔ Scissors
 - ➔ Oat cereal rings
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Directions

1. Fill one container $\frac{1}{2}$ full with bird seed.
2. Fill the second container with corn syrup or molasses (enough to paint with).
3. Cut the paper towel tube into several rings. If using a cereal box, cut the cardboard into several strips and form into loops, securing each with tape. Make sure the plain side of the box shows on the outside of each ring.
4. Punch a single hole into the center of each ring.



5. Paint a thick coat of syrup onto each ring and then roll thoroughly in the bird seed.



6. Allow the bird seed to set on the rings for about 10-15 minutes.



7. Cut a variety of lengths of string or yarn. If using yarn, wrap a small piece of tape tightly around the end to help thread it more easily.



8. Tie a knot at one end of a piece of string. Begin stringing a few pieces of oat cereal on to it.



- Slide the string through the bottom hole of a ring with bird seed. String more oat cereal onto the string and then slide the remaining string through the top hole of the ring.



- Continue to string with oat cereal or add another bird seed covered ring. Create different arrangements.



- Tie the completed strings to the stick.
- Hang the bird feeder outside and watch the birds enjoy a snack.

