

Build-a-Dino Skeleton

Re-create a dinosaur skeleton with cotton swabs.



Supplies:

- Cotton swabs (15 - 50)
- Plain paper

Instructions:

1. Organize your work space. Look through books or photos online to find a dinosaur skeleton you want to re-create. Count how many sticks you will need.
2. Layout the sticks in the appropriate places on the paper.
3. Glue them in place.

Tips for Adults:

- Talk about the name of the dinosaur and the body parts that each cotton swab stick will create.
- How many sticks does it take to create a full body skeleton?
- Did your child need to cut any sticks smaller to make things like teeth, arms, or toes?

Underwater Fireworks

Use oil, water, and food coloring to create an illusion of fireworks.



Supplies:

- 2 Jars or glasses
- Water
- Vegetable oil
- Forks
- Food coloring
- Measuring cups/spoons, *optional*
- Plastic tablecloth or paper towels
- Experiment Worksheet

Instructions:

1. Complete the Experiment Worksheet as you go through each step.
2. In one jar, add 2 - 4 tablespoons of oil to a jar and several drops of food coloring to the oil. You can use multiple colors.
3. Using a fork, break the drops of color into smaller droplets.
4. Add up to 2 cups of water to the 2nd jar.
5. Pour the oil and food coloring into the jar of water.
6. Make observations.

Tips for Adults:

- This is a lesson on density. The oil settles on the top of the water and food coloring will slowly sink to the bottom of the oil layer. The food coloring will slowly make its way into the water creating streaks of color.
- Ask your child(ren) what they see happening.
- For an extension, see if the water temperature or if the order of the steps makes a difference.

Underwater Fireworks Experiment Worksheet

Before You Begin:

What do you **think** will happen when you add the oil and food coloring together?
Draw a picture or write words.

After You Mix the Oil and Food Coloring:

What did you **see** happen when you added the oil and food coloring?
Draw a picture or write words.

Before You Begin:

What did you **think** will happen when you add the oil and food coloring to water?
Draw a picture or write words.

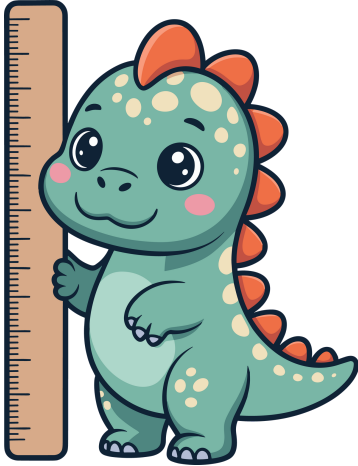
After You Mix the Oil and Water:

What did you **see** happen when the oil and food coloring was added to water?
Draw a picture or write words.

What would you change in future experiments and how might it affect the results?

Dino Size

Draw dinosaurs to scale and see how your own height compares.

**Supplies:**

- Dino size chart (attached)
- Ruler or tape measure
- Sidewalk chalk

Instructions:

1. Study the Dino Size Chart. Choose the dinosaurs you want to draw with sidewalk chalk.
2. Draw the dinosaurs to the best of your ability.
3. Lie down on the ground near your dino drawing.

Tips for Adults:

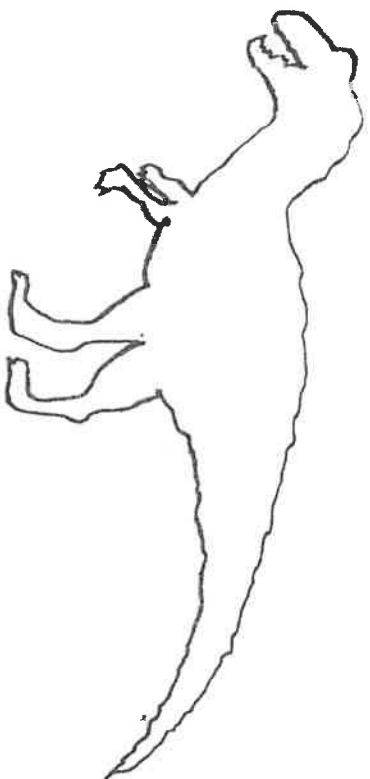
1. Help your child add appropriate features to help make the dinos recognizable.
2. Talk to your children about height and width. Use words like greater than, more than, less than, taller, shorter, smaller, bigger, etc.

DINOSAUR SIZE CHART

Name	Genus	Length	Height	Weight	Of Note
Tyrannosaurus Rex	Theropod	39-43 ft	21 ft (if upright)	9-15,000 lbs	Head: 4 ft long
Dreadnoughtus (Titanosaur)	Sauropod	85 ft	20-30 ft	130,000 lbs	Largest dinosaur whose size can be calculated
Quetzalcoatlus	Pterosaur	35 ft wingspan	16-24 ft	440-550 lbs	
Pterodactylus	Pterosaur	20-39 in wingspan	3.5 ft	2-10 lbs	
Pteranodon	Pterosaur	14-23 ft wingspan	6 ft	55 lbs	
Stegosaurus	Stegosaur	19 ft	9.5 ft	6,800-8,400 lbs	
Velociraptor	Velociraptor	6 ft	1.5 ft	31-43 lbs	
Brachiosaurus	Brachiosaur	59-72 ft	30-42 ft	99,000-120,000 lbs	

source: <https://www.britannica.com/>

ALLOSAUURUS



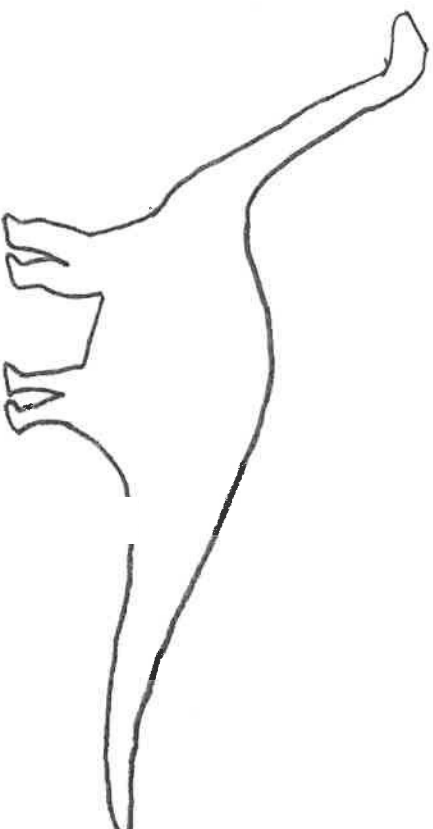
15 ft tall / 35 ft long

IGUANODON



8.9 ft tall / 33 ft long

APATOSAURUS



15 ft tall / 69 ft long

OVIRAPTOR



3 ft tall / 5 ft long

Geology 101

Go on a rock hunt and test to see if it's limestone, marble, or other calcium carbonate rocks.

**Supplies:**

- 3 - 4 different rocks
- 3 - 4 glasses or shallow bowls
- Vinegar
- Water

Instructions:

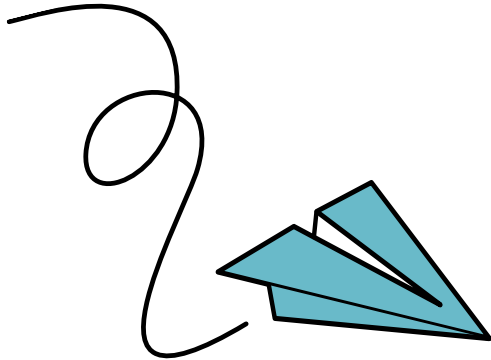
1. Gather 3 - 4 rocks of varying color and texture. They should fit in your cup or bowl.
2. Pour enough vinegar over the rocks to cover.
3. Observe what happens.

Tips for Adults:

1. If the vinegar causes any fizzing or bubbling around the rocks, they are likely a form of calcium carbonate like limestone, marble, or chalk, shells, etc.
2. Run a similar test with water. What happens?
3. Visit the library to learn more about rock and fossil formation.

Paper Airplanes

Make several airplanes, color them to look like dinosaurs, and take them for test flights.

**Supplies:**

- Paper
- Paper airplane examples, attached (*optional*)
- Markers, crayons, or other art supplies

Instructions:

1. Fold paper into 3 - 4 different airplane shapes. You can use the examples provided or create your own.
2. Design them look like dinosaurs with your art supplies.
3. Take them on a test flight.

Tips for Adults:

- Here are some questions you can ask your child(ren):
 - Why did you choose the design and folds you used?
 - What is more important: height or distance?
 - What design worked the best?



T-Rex Counted Cross Stitch

Create a one-color dinosaur cross stitch.

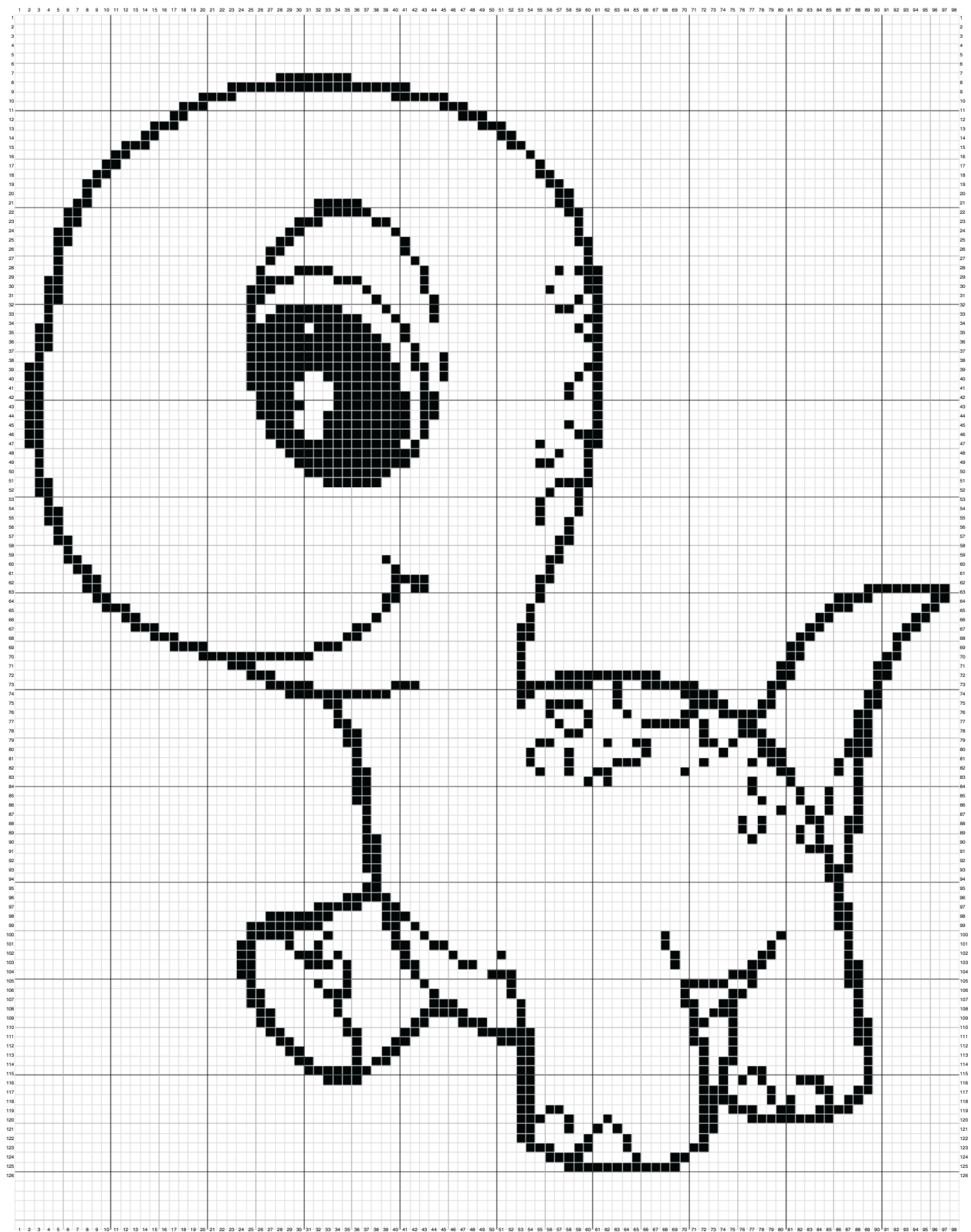
**Supplies:**

- Aida cloth (cut to 5"x7")
- Embroidery needles
- Embroidery thread
- Embroidery hoop
- Scissors
- Pen or pencil to track progress
- Cross stitch pattern
- Needle threaders, *optional*

Instructions:

1. Use the attached pattern to create your own counted cross stitch T-Rex cross stitch.
2. If you are new to cross stitch, check CREATIVEBUG at Starklibrary.org for helpful tips and tutorials or click the QR Code below.



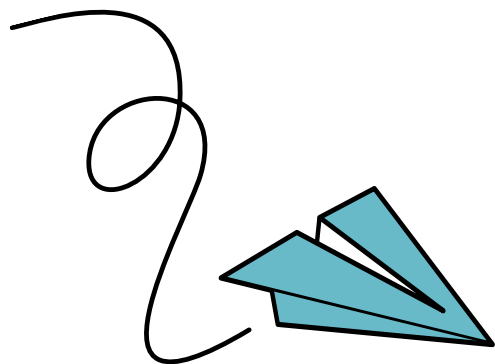


2 color design

Designed with Stitch Fiddle

Paper Airplanes

Make several airplanes, color them to look like dinosaurs, and take them for test flights.



Supplies:

- Paper or cardstock
- Paper airplane examples, attached (*optional*)
- Markers, crayons, or other art supplies

Instructions:

1. Fold paper into 3 - 4 different airplane shapes. You can use the examples provided or create your own.
2. Design them to look like dinosaurs with your art supplies.
3. Take them on a test flight.

Tips for Adults:

- Here are some questions you can ask your child(ren):
 - Why did you choose the design and folds you used?
 - What is more important: height or distance?
 - If you used different kinds of paper, what worked best?
 - What design worked the best?

Plant Biology 101

Learn about photosynthesis by completing this experiment.

**Supplies:**

- 3 identical living plants or leaves

Instructions:

1. Keep one plant at room temperature and watered.
2. Keep another plant in a dark place at room temperature with water.
3. Keep the third plant in the light but without water.
4. Observe the plants over a few days.
 - a. What do you notice happens to each one?
 - b. What do plants need to thrive?

Fossil-abrate your Family

Unearth your Family History!



Supplies:

- Fossil-abrate your Family Chart (Attached)
- Markers and Crayons
- Pen or Pencil

Instructions:

1. Look at each dinosaur and talk with a family member to add names to the Family Chart.
2. Inside each dinosaur, draw a picture of that person or add details that represent them.
3. Find the dinosaur labeled “You” and draw yourself. Write your name.

*Remember that each family can look different and that’s okay!

Fossil-abrate your Family

Write the names of your family members or draw a picture of them in the dinosaur shapes.



Grandfather



Grandmother



Grandfather



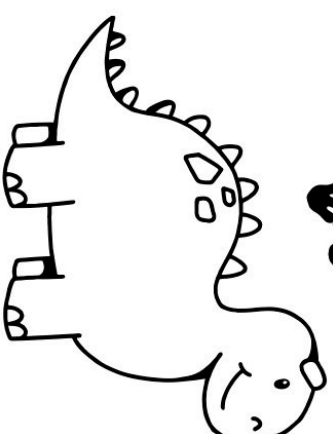
Grandmother



Father



You



Mother

Family Stories

Unearth your Family History with these interview questions.



- State your full name.
- Your age and date of birth and year.
- Mother's Name
- Father's Name
- Siblings: Brothers/Sisters – Names and date of birth/death-cemetery
- Nationality: African American, Native American, Hispanic, Italian, Other
- Favorite color(s)?
- Family traditions?
- Favorite quotes or sayings?
- What kind of work did your parents do?
- Where did you go to school?
- Favorite memory of school?
- Where did you go for recreation?
- Fondest Memories?
- What do you want your family to be remembered for?