

# Dinosaur Designer: Create a Creature!

## Materials Needed

- A shoebox or other small cardboard box
- Modeling clay (multiple colors), LEGO bricks, or recycled materials (cardboard tubes, plastic bottles, etc.) for building
- Craft supplies: construction paper, scissors, glue, tape, markers or paint
- Natural items (optional but fun!): small rocks, twigs, leaves, sand, or soil
- Paper and pencil/pen for sketching and notes
- Access to the internet (with supervision) for research, or dinosaur books/encyclopedias

## Learning Objectives

By the end of this lesson, Corri will be able to:

- Identify key characteristics of at least two different dinosaurs (diet, habitat, physical features).
- Explain how a dinosaur's physical traits (adaptations) helped it survive in its environment.
- Design and create a model of a new, imaginary dinosaur, justifying its features based on a chosen habitat.
- Construct a diorama representing the dinosaur's habitat.

## Curriculum Connections (Example Standards)

- **Next Generation Science Standards (NGSS):** 3-LS4-2 - Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. (This lesson adapts this to different species).
- **National Core Arts Standards (NCAS):** VA:Cr2.1.3a - Create personally satisfying artwork using a variety of artistic processes and materials.

## Part 1: The Spark - What Makes a Dinosaur a Dinosaur? (15 minutes)

Let's start by thinking like a scientist. We know dinosaurs were amazing, but what made them so different from each other? A huge, plant-eating Brachiosaurus is very different from a fast, meat-eating Velociraptor.

1. **Discuss:** What are some dinosaurs you already know? What's one cool fact about each?
2. **Brainstorm:** Let's list the features that make dinosaurs different. Think about:
  - **Diet:** What did they eat? (Meat-eaters are carnivores, plant-eaters are herbivores). How can we tell from their teeth or claws?
  - **Defense:** How did they protect themselves? (Armor, horns, spikes, speed, camouflage, size).
  - **Habitat:** Where did they live? (Forest, swamp, desert).

- **Size & Shape:** Were they big or small? Did they walk on two legs or four? Did they have long necks or tails?

## Part 2: Research Mission - Become a Dinosaur Expert (30 minutes)

Now it's time to go on a research mission! Your goal is to gather ideas for creating your own dinosaur later.

1. **Choose two dinosaurs** that seem very different from each other. For example, you could pick Stegosaurus and Tyrannosaurus Rex.
2. **Use books or safe websites** (like National Geographic Kids, the Natural History Museum website, or DK Find Out!) to find the answers to the "Brainstorm" questions from Part 1 for each of your chosen dinosaurs.
3. **Take Notes:** On your paper, create a simple chart to keep track of your findings. This will be your "field guide" for the next step.

## Part 3: Creator's Lab - Design and Build! (60-90 minutes)

This is where you become a scientist and an artist. You will invent a brand-new dinosaur species and build its world.

### Step A: Invent Your Dinosaur

1. **Choose a Habitat:** First, decide where your dinosaur will live. A dense, swampy jungle? A dry, rocky desert? An open plain?
2. **Sketch Your Design:** On a piece of paper, sketch your new dinosaur. Think about the research you just did. How will your dinosaur be adapted to its habitat?
  - **What will it eat?** If it's a herbivore in a swamp, maybe it needs a long neck to reach tall, soft plants. If it's a carnivore in the desert, maybe it needs to be fast to catch lizards.
  - **How will it move?** Will it have strong legs for running or webbed feet for swimming?
  - **How will it protect itself?** Will it have camouflaged skin to blend in with the trees? Sharp horns? A clubbed tail?
3. **Name Your Dinosaur:** Give it a cool, scientific-sounding name! *Corri-saurus Rex?*

### Step B: Build Your Dinosaur and its World

1. **Create Your Diorama:** Use the shoebox as your stage. Decorate the inside to look like the habitat you chose. Use construction paper for the background, twigs for trees, sand for a desert floor, or blue paper for a river. Be creative!
2. **Build Your Dinosaur:** Using modeling clay, LEGOs, or other craft materials, build a 3D model of the dinosaur you designed. Try to include the special features you sketched, like its horns, teeth, or unique tail.
3. **Place your dinosaur in its habitat.** Your creation is complete!

## Part 4: Museum Showcase - Present Your Findings (15 minutes)

Every great discovery needs to be shared! Imagine you are a paleontologist presenting your amazing new find at a museum. Explain your creation.

**Use these prompts to guide your presentation:**

- "I would like to introduce you to the... (dinosaur's name)."
- "It lived in a... (habitat name) environment, which you can see here in my model."
- "Its most interesting feature is its... (e.g., armored back). This helped it survive by..."
- "It was a... (herbivore/carnivore). I can tell because it has... (e.g., sharp teeth for meat / flat teeth for plants)."
- "My favorite part of creating this dinosaur was..."

**Assessment: How Did You Do?**

Let's look at what you created and see how well you thought like a scientist!

Category	Goal	Did I do it?
<b>Scientific Thinking</b>	My dinosaur's features (adaptations) make sense for its habitat and diet.	(Check Yes/No)
<b>Creativity &amp; Effort</b>	I used materials creatively to build a unique dinosaur and a detailed habitat.	(Check Yes/No)
<b>Clear Explanation</b>	I can clearly explain my dinosaur's name, habitat, diet, and special features.	(Check Yes/No)

**Extension Activities (If you want more dino fun!)**

- **Write a Story:** Write a short story about a day in the life of your new dinosaur. What challenges does it face? What does it eat for lunch?
- **Create a Fossil:** Press a toy dinosaur or your clay model into a flat piece of clay or play-doh, remove it, and let the impression dry to create a "fossil."
- **Dino Food Web:** Draw the habitat you created and add other plants and animals that might live there. Then draw arrows to show who eats whom, creating a food web with your dinosaur as the main star.

**Differentiation and Support**

- **For support:** Use a pre-made dinosaur coloring page as a template for your design. Or, focus on building just the dinosaur model without the full diorama. Use sentence starters from the "Showcase" section to help write down the description.
- **For a challenge:** Research a specific prehistoric period (like the Jurassic or Cretaceous) and ensure your dinosaur's habitat and any other creatures you add to the diorama are from that same time period.