

## Animal Crafts Through a STEM Lens with Allison



### Instructions:

Check out this sample lesson plan and activity ideas for inspiration, ideas, and more. Feel free to edit, delete, or highlight to make it your own! These notes are yours to customize. They will not be published anywhere such that you're held to teaching exactly what's here.

### Topics

science, technology, engineering, crafting, art making experiences, hands on projects, inquiry based projects, build, explore and learn!

### Lesson Ideas

Lesson Title

Animal Crafts In The STEM Maker Space

Duration

1 Hour

Lesson Plan

1. Introduction to STEM and Animals (5 minutes)

- Discuss what STEM stands for (Science, Technology, Engineering, Mathematics).
- Briefly introduce the concept of animal adaptations and habitats.

2. Choose an Animal and Discuss Its Features (10 minutes)

- Allow students to choose or assign them an animal to focus on.
- Explore features and adaptations of chosen animal through a short discussion.

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## 3. Engineering Animal Habitats (15 minutes)

- Provide materials for students to design and construct a simple model of the chosen animal's habitat.
- Encourage creativity while explaining the importance of the habitat's role in an animal's life.

## 4. Crafting an Animal Model (15 minutes)

- Students create a model of their chosen animal using clay or craft materials.
- Discuss shape, color, and special features that need to be considered.

## 5. Technology Integration: Research Sharing (10 minutes)

- Use tablets/computers to research additional interesting facts about their animal.
- Encourage students to present one new fact to the group.

## 6. Reflection and Sharing (5 minutes)

- Allow students to share their animal craft and habitat with the class.
- Discuss what new information they learned about their animal.

## Materials List

- Colored clay and craft paper
- Scissors and glue
- Markers and crayons
- Small recycled materials (e.g., cardboard, plastic caps)
- Printed pictures of animals
- Tablets/computers with internet access
- Poster board or bulletin board paper

## Adaptations for Different Ages

- Younger children (ages 5–7) can focus on simple animal features and use basic shapes for crafting.
- Older students (ages 8–12) can research more complex features and adaptations, incorporating more detailed elements in their models.

## Movement Break

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- "Animal Moves Relay" (5 minutes): Have students pretend to move like their chosen animals (e.g., hopping like a kangaroo, slithering like a snake) as they walk from one end of the classroom to another.

## Bonus Activities

- Organize a "STEM Animal Discovery Day" where local wildlife experts or zoo educators are invited to present.
- Implement an ongoing project where students can create a classroom "zoo" of their animal crafts that they can add to throughout the year as they learn about new animals.
- Host a virtual field trip to a local zoo or animal sanctuary.

## Series Outline

### **\*\*Week 1: Animal Habitats\*\***

- Create dioramas of different animal habitats using recycled materials.
- Research and present how different animals adapt to their environments.
- Explore how environmental changes affect habitats with mini-experiments.

### **\*\*Week 2: Animal Anatomy\*\***

- Construct models of animal skeletons using craft sticks and clay.
- Dissect (model) owl pellets to understand food chains and diets.
- Label the parts of animals using interactive anatomy charts.

### **\*\*Week 3: Animal Communication\*\***

- Experiment with sound by creating string telephones to mimic animal communication.
- Design and use codes to simulate animal signals and calls.
- Create flashcards featuring animal sounds with QR codes linking to audio samples.

### **\*\*Week 4: Animal Movement\*\***

- Build simple machines that mimic animal movements (e.g., flapping bird wings).
- Design and race balloon-powered vehicles to explore how animals use energy efficiently.
- Investigate how different species migrate; simulate with maps and craft-based cues.

### **\*\*Week 5: Biomimicry: Nature Inspiring Design\*\***

- Create devices or tools inspired by animal adaptations.

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- Design wearable tech mimicking animal abilities (e.g., bat-inspired sonar headbands).
- Study and present examples of biomimicry in modern technology.

## **\*\*Week 6: Camouflage and Survival\*\***

- Create art projects using paint to blend objects with their background.
- Conduct hide-and-seek games with colored shapes to understand camouflage.
- Research and present different animal camouflage mechanisms.

## **\*\*Week 7: Food Chains and Ecosystems\*\***

- Construct a 3D food web with yarn to demonstrate predator-prey relationships.
- Create visual art pieces that illustrate complex ecosystems.
- Use role-playing games to show the impact of species extinction on food chains.

## **\*\*Week 8: Endangered Animals and Conservation\*\***

- Design posters and campaigns to raise awareness about endangered species.
- Build birdhouses or shelters from natural materials for local wildlife.
- Research and debate the effects of human activities on wildlife conservation.

## **\*\*Week 9: Technological Advances in Wildlife Research\*\***

- Explore drone technology by designing paper-plate frisbees.
- Create digital animal tracking anecdotes using storytelling apps.
- Simulate GPS tagging by crafting animal collars with unique IDs.

## **\*\*Week 10: Reflections and Showcase\*\***

- Host a gallery walk showcasing projects and crafts completed during the course.
- Encourage students to write a reflection on their favorite activity and what they learned.
- Invite families and other classes to a presentation day where students share their knowledge.

For additional support, reference this [experience outline template](#) which includes tips and prompts to help you develop and lead an excellent Grasshopper Kids experience.

*Note: This lesson plan outline was drafted by Hopper. If you would like to see different results, you can [submit another idea](#), or text us with feedback so we can work to make the algorithm better. We built this tool to help save you time in bringing more kids enrichment experience ideas to life!*

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