

Lions, Tigers, and an Introduction to AI!

Designed for learners in Grades K-2



Course Description:

The Zappsville Zoo focuses on protecting and healing endangered animals! It's getting busy and the staff has asked YOU to help them design robotic and AI solutions. Over these 15 lessons, early elementary students will complete hands-on activities introducing them to basic AI, robotics, and machine learning concepts as they solve a variety of zoo-themed challenges!

Equipment, Curriculum, and Training Available:

- 15 Lesson Hours
- Curriculum and supporting materials
- Ongoing product and curriculum support
- Professional development
- Facilitation by a trained STEM instructor (optional)

Lesson	Learning Target Examples
1. Robots All Around Us!	Explore examples of robots in the real world and zoos.
2. Chores are for Chimps!	Create and illustrate their own "chore" bots.
3. Old Frog, New Tricks	Explore how animals, people, and machines learn.
4. Robot See, Robot Do	Complete an image recognition card sorting activity.
5. Who Made that Sound?	Interact with speech recognition software.
6. Self Driving Zoo Tour	Create "Zoo Tour" algorithms by using arrow cards.
7. What Could Go Wrong?	Explore the potential risks of AI / Robotic solutions.
8. Elephants Don't Play Chess	Study animal behavior and develop a "biomimicry" bot.
9. Virtual Zoo Pet: Part 1	Interact with a "virtual zoo pet" on Scratch Jr.
10. Virtual Zoo Pet: Part 2	Create a virtual zoo pet in Scratch Jr.
11. Animal Tracking with GPS	Use GPS techniques to determine the location of a migrating flock of birds.
12. Predicting Animal Behavior	Create an AI program that can predict animal wants and needs based on repeated behaviors.
13. Managing the Zoo: Tickets and Crowds	Create a "Smart Schedule" for a zoo to manage food and ticket sales.
14. Recreating Habitats	Describe how AI can use pattern recognition to generate familiar yet "new" habitats.
15. AI Beyond the Zoo	Explore the neighboring businesses that use AI.