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# Lesson Plan: AI Digital ‘Elephant Book’ for Conservation

**Time:** 60 Minutes | **Grade Level:** 4–6 (Elementary / Middle School)

**Subjects:** Science, Language Arts, Technology, & Media Literacy

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## Curriculum Connections

### Canadian Standards (BC & Ontario Focus)

- **Science (BC):** *Big Idea:* All living things sense and respond to their environment. (Focus: How elephants use seismic sensing/feet to respond to their world).
- **Science (Ontario):** *Interactions in the Environment:* Assess the impact of human activities and technology on the natural world.
- **Language Arts:** *Composition & Digital Literacy:* Using digital tools to communicate ideas, using appropriate forms and styles for an audience.
- **Applied Design, Skills, and Technologies (ADST):** Understanding the role of technology (AI) in solving real-world problems.

### US National Standards (NGSS & Common Core)

- **Science (NGSS - 4-LS1-1):** Internal and external structures that function to support survival, growth, and behavior (e.g., the specialized anatomy of the elephant foot).
- **Science (NGSS - 5-ESS3-1):** Human impact on Earth systems and how communities use science to protect resources.
- **Language Arts (CCSS.ELA-LITERACY.W.5.6):** Using technology and the Internet to produce and publish writing and interact with others.
- **Tech (ISTE 1.6):** Creative Communicator—Students communicate complex ideas clearly by creating digital objects.

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## Learning Objectives

1. Identify how **elephant anatomy** (feet/teeth) and **AI technology** both play a role in modern conservation.
  2. Understand that AI is a tool for **digital storytelling** and creative advocacy.
  3. Design a digital "Elephant Book" that includes facts, AI-generated art, and a call to action.
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## Lesson Breakdown (60 Minutes)

### 1. The Tech-Savvy Elephant (10 Mins)

- **Discussion:** "How do elephants 'hear' without ears?" (Introduce **Seismic Sensing**—the "Elephant Foot" graphic).
- **The Mission:** Explain that groups like the **Mara Elephant Project** use high-tech tools (GPS, AI, and Drones) to keep elephants safe.
- **AI Intro:** Explain that AI is a "Digital Assistant." Today, we will use it to illustrate a book about why elephants matter.

### 2. AI Art Creation (15 Mins)

- **The Prompt Challenge:** Students use an AI image tool (e.g., Canva Magic Media or Adobe Express) to create an image based on a specific fact.
- **Prompt Examples:** \* "An African elephant family walking silently through a savanna, digital art style."
  - "A close-up of an elephant's trunk picking up a small branch."

### 3. Digital Book Building (25 Mins)

Students use Google Slides or Canva to build a 4-page "mini-book":

- **Page 1 (Title):** A catchy title + their best AI image.
- **Page 2 (The Anatomy):** One cool fact about elephant teeth or feet.
- **Page 3 (The Threat):** Why elephants are at risk (habitat loss, poaching).
- **Page 4 (The Future):** A "**Call to Action**" for the **UNTOC Advocacy Campaign**—what should world leaders do?

### 4. Gallery Walk & Reflection (10 Mins)

- Students show their "Books" to a partner.
  - **Wrap-up Question:** "If AI can help us see the beauty of elephants, how can humans use their own voices to help save them?"
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## Assessment & Differentiation

- **Assessment:** Review books for one scientific fact and one clear conservation message.
- **For Advanced Students:** Challenge them to write a "Prompt" that includes specific lighting or artistic styles (e.g., "in the style of a National Geographic photo").
- **For Support:** Provide "Sentence Starters" like: "*Elephants are ecosystem engineers because...*"

## Resource Links for Teachers

### Real-World Conservation Technology

**EarthRanger:** Developed by the Allen Institute for AI (AI2), this platform is the "brain" of many protected areas. It uses AI-driven integrations to monitor 23,000+ animals and thousands of sensors in real-time.

- *Teacher Tip:* Show students the "Real-Time Data" videos on their site to demonstrate how technology turns a map into a live protection tool.

**Wildlife Dynamics:** A leader in "Smart Parks" technology. They provide the hardware and software that allow conservationists to use AI for "Human-Wildlife Conflict" mitigation—like the virtual fences used to keep elephants away from village crops.

**Wildlife Insights:** (A key partner for many tech groups). This is a great student-facing link. It uses Google's AI to identify animals in camera trap photos automatically, saving researchers thousands of hours.

**Mara Elephant Project - Education Hub:** Explore how real rangers use GPS and AI tracking to protect herds in Kenya.