Summer Camp
Exploring Africa Day 1

4-8TH GRADE

WELCOME

(5 min)

Instructions: Welcome your students to camp. Be friendly, ask a question, give a high five or thumbs-up! Pass out any fun camp gear, bottles, journals, etc. Say: "This month we will be exploring various places and the animals that live there. Today we get to go on an imaginary expedition to Africa!"

GAME TIME

(40 min)

Materials:

- Open area or grassy playing field
- Various objects to put in the playing area such as balls, toys, boxes, water bottles, etc.

PLAY "YOU'RE ONLY SAFE IF..." (TAG GAME)

Objective: Play this game to welcome your students to summer camp. This game is a variation of tag in which students can only be tagged when away from a safe zone or island. During the game, the safe island will change between different objects as directed by the game leader.

Prepare: Place some objects outside in an open or grassy play area. Examples of objects could be water bottles, various balls, toys, or a box.

Instructions: Before beginning the game, ask students to observe the play area. What do they see? Do they see toys, trees, grass, clover, dandelions, or a ball? Explain that any of these objects can become a "safe island" to avoid being tagged when the game leader who is "It" calls out the name of that object. Students must run to that object and touch it, or touch someone who is touching the object, to be safe and avoid being tagged. When the game leader calls out the name of an object, for example, "a clover flower," players must find and run to a clover flower. “It” will try to tag players before they reach a clover. Whoever gets tagged will become a tagger and join the person who is “It.” Once players have made it to a safe object, the game leader/"It" will call out the name of the next safe object. Once most of the players have become taggers, the game can end or begin again.

STEM TIME

(60 min)

Materials:

- Lots of paper (printer paper, cardstock, large butcher paper, etc.)
- Scissors
- Tape
- Markers, crayons
- Student sheet

PAPER PLANE ENGINEERING

Objective: Use the engineering process to make a far flying paper plane

Instructions: Say: "Today you get to be an engineer and design your own paper airplane. Since you are the engineer, you can decide how you want to make your airplane. Try designing the best paper airplane that you can! Then we will use it to take a pretend flight to Africa."

1. Students will design and fold a paper airplane. They will also make a flight cone to mark how far their planes fly.
2. Take students outside to an open area and mark a starting line to test their planes. Throw them multiple times to see how far they fly. Students can mark each throw by placing their flight cone in the grass and then come back to the line to try and beat their last flight.
4. Ask the students the following questions then have them use their observations to fill out their flight sheets and design a new and improved airplane.

STEM TIME
(Continued)

Ask- What about your design worked to make your plane fly far? Why do you think so?
Example: I think making my plane long and light helped it fly far because my longer, lighter plane flew farther than the first one I made.
What do you notice about the airplanes flying the farthest? If your airplane didn't fly as far as your classmates', what do you think you might try differently if you built it again?
Example: The airplanes that go farthest have pointy noses and wide wings.

STEM ARTS
(60 min)

Materials:

- Camp journals
- Markers, crayons, and colored pencils

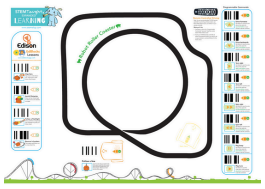
DECORATE CAMP JOURNAL

Say: "Now that we have flown to Africa we need to learn about this new place. We will watch about 6-10 min of a movie showing footage of African wildlife. Try to remember all the animals that you see. You can take notes in your camp journal. At the end of the movie we will see who remembers the most animals."
1. Watch about 6 minutes of - African Safari 4K - Scenic Wildlife film with African Music - https://youtu.be/P8frC_cLLD4
2. After the movie pass out a blank sheet of paper and take an African animals quiz. Tell students that they cannot talk but they can use the notes from their camp journals. Have students write all of the animals they remember seeing in the movie. Award the winners of the most animals listed with some summer camp money.
3. Next set out a variety of markers, crayons, and colored pencils and let the students decorate their camp journal covers with animals and fun designs. Have them all write their names on the covers. While they color you can leave the African Safari 4K movie playing to provide music and inspiration. You can also look up African art to help them see fun designs that they could use to decorate their camp journal covers.
4. Finally take students to the library where they can find some fun books to read during camp. *Remind them that they can earn camp money for reading.

ROBOTICS
(60 min)

Materials:

- Robots
- Measuring tapes
- Chromebooks
- Building bricks
- Robotics Sumo mat



TURN YOUR ROBOT INTO A PLANE

Objective: Turn your robot into a plane and program it to go to Africa.

Instructions: Students take time building with building bricks to turn their robot into a plane. Teachers can label a starting point on the ground with tape and then 8-10 feet away they can label "Africa" on another point on the ground with an x. Students have to “fly“ their plane from one point to the next.

Robot challenge with a laptop: Students get to learn how to program their robot to drive a certain distance, and try again until they get it programmed to drive the whole distance. Have the measuring tapes ready if the students ask for them ,but allow them to figure out that they can use them. Robotics is more fun when it is trial and error. When the students figure something out themselves it is really gratifying. There is a space in the code blocks to input a measurement for the robots to go. In EdScratch they can choose to input a specific metric like inches or centimeters. Link to programming resources: https://www.stemexpandedlearning.com/robotics

Alternatively students can scan the barcodes on the back of the Sumo mat to help their plane move while following a line (Robot Mat with a line can be their airport) or code it with claps or to follow a remote. For clap coding, students may go two at a time and race to see who can fly their plane to Africa first!