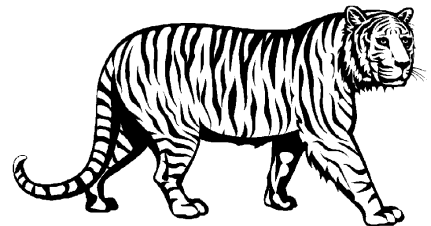


WILD

TIGER



#tinytiger

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Wild Tiger

What? Wild Tiger is a 501c3 non-profit dedicated to conserving India's Bengal tigers and their habitats. We believe that tigers can survive and rural communities can develop sustainably together.

Why? The diversity of wildlife found in India are maintained and supported by the tiger. People who depend on the ecosystem for food, cash crops, and natural products also benefit from conserving the tiger. Protecting the apex predator means protecting everything else in the ecosystem.

How? We work to protect the largest remaining population of tigers in the world. India's Bengal tigers are threatened by a number of global and local issues. Scientific research and education is fundamental to successful conservation.

Research: Field research in India examines both the biological environment and human dimensions of the tiger's existence. India's tiger population is critical to long-term conservation as the largest concentration of tigers left in the wild. We provide resources supporting year-round research in Central India.

Education: Education is essential in our efforts to save tigers and promote coexistence.

A variety of threats, like wildlife crime, climate change, and habitat encroachment face tigers in the wild. An interdisciplinary understanding of threats is required to meet 21st century conservation needs as traditional conservation strategies have failed. The tiger's future is in our hands. Innovative solutions need to be found. Tigers need STEM leaders who engage in critical thinking. We rely on educating the future generation, providing them skills and knowledge, so they may be able to save endangered species in the future.

About This Activity Guide

Despite the combined efforts of the international community, governments and civil society there has been a significant increase in wildlife crime. Wildlife trade is the fourth largest global illegal trade after narcotics, counterfeiting, and human trafficking. Creating the material for school age students presented the opportunity to introduce the issue to a broad audience. The material was designed as an activity guide because various facets of the topic could be explored through basic science principles and social studies skills. Through a multi-disciplinary approach, students will gain a deeper understanding of the role wildlife play in the environment and how legal and illegal trade affects a species' survival. This activity guide provides a hands-on, problem-solving activity which create the opportunity to learn about wildlife trade issues in an interactive and thought provoking manner.

Go to www.wild-tiger.org for further STEM exploration and to download more activity guides!

How to Use This Activity Guide

The purpose of this education activity guide designed to acquaint students with the increasing problems associated with wildlife trade. This guide is intended to be useable for both formal and non-formal facilities. The activities are aimed at upper elementary through high school students. There are three units, each consists of a topic overview with two to three activities based on the subject matter. Every activity includes an objective, method, background information and procedure accompanied which include an introduction, conclusion, and discussion questions as well as extension suggestions. All activities have **key terms** which highlight the learning objectives. Supplemental materials are provided at the end of each activity. Each section also has a supplemental case study for students or teachers to examine the topic deeper.

This activity guide can be used as a tool for educators to incorporate the topic of wildlife crime into programming or a school curriculum. The activities are designed to cover broad environmental science topics and introduce key terms in a fun and interactive manner. Through a multi-disciplinary approach, this booklet will provide students with a deeper understanding of the role wildlife plays in the environment and how legal and illegal trade affects wildlife survival, as well as stimulate environmental stewardship beyond the classroom.

Engineering an Ecosystem Guide

Intro:

Protecting India's Bengal tiger means protecting everything else that lives in the ecosystem. The diversity of wildlife found in India's grassland, mangrove, and forest habitats are maintained and supported by the apex predator, the tiger. As India's economic development continues, it becomes increasingly important to conserve the last wild places where tigers survive. The loss of a keystone species or apex predator could disrupt the food chain, and an entire ecosystem could collapse. A keystone species is a wildlife species (plant or animal) that plays a crucial role of how an ecosystem functions. These species are vital to the biodiversity of an ecosystem by keeping other species' populations in balance.

Objective:

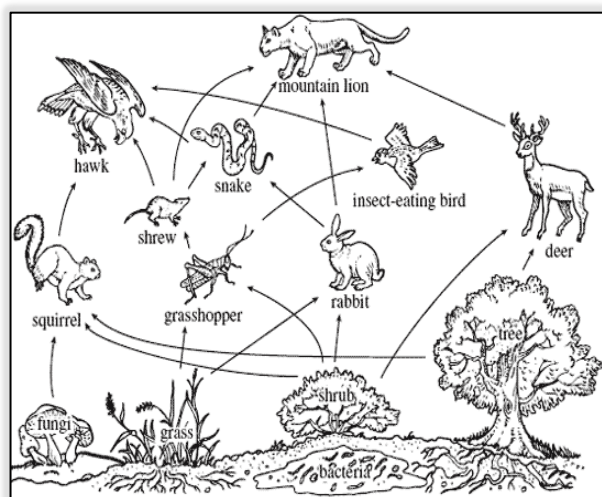
Be able to advocate about little known or misunderstood wildlife.

Method:

In this activity, you will plan your own ecosystem and describe the organisms the life within this environment. Try your best to think of a real-world example!

An ecosystem includes all living things (plants, animals and other organisms) interaction with each other and also with the non-living environment (weather, sun, soil and temperature). The **biodiversity** (variety of living species in that ecosystem) keeps a balance where everything within the environment relies on one another. Ecosystems can be as small as a puddle or as large as a forest.

1. **Pick a type of ecosystem:** Ocean, forest, desert, wetland, tundra, or grassland



a) What organisms live in it? Figure out 6-8 species

b) What plants, trees or flowers are there?

c) What is the climate like (weather)?

A **Keystone species** is a wildlife species (plant or animal) that plays a crucial role in how an ecosystem functions. These species are vital to the biodiversity of an ecosystem by keeping other species populations in check. The removal of a keystone species could cause the entire

Grade level: 5-8

Subject Areas: Biology, Language Arts, Art

Duration: 30-40 minutes

Materials:

- ✓ Ecosystem Guide-
- ✓ Writing Pad

Key terms: apex predator, biodiversity, bycatch, keystone species

ecosystem to collapse.

2. What is the key species in your ecosystem?

Identify 1 animal that has 2 other species that depend on that one animal
(Examples: prairie dogs, elephant, beavers, sea otters, bees, gopher tortoise)

- a) What do they eat?
- b) What eats it?
- c) Where does it live? Where is their shelter?
- d) What about the species makes it essential to the ecosystem?

Apex predators are animals (adult) that have no natural predators in their ecosystems and are at the top of the food chain. These species are essential for maintaining the health of an ecosystem. Apex predators keep the population of smaller predators in check, keeping important prey population plentiful and the ecosystem stable.

3. What is the dominant species in your ecosystem?

Identify 1 animal that preys on 2 other species
(Examples: lion, shark, crocodile, killer whale, hawk, bear)

- a) What do they eat? Where do they eat?
- b) Where do they live? Where is their shelter?
- c) Why are they on the top of the food chain?

Glossary

Domesticated-tamed animals- animals that have become adapted over time to life alongside humans, such as chickens, goats, cows, dogs.

Illegal wildlife trade or trafficking -the illicit procurement, transport, and distribution, internationally and domestically, of animals, and animal parts in violation of laws, foreign and domestic, and treaties.

Apex predators- are animals (adult), have no natural predators within their ecosystems and are at the top of the food chain.

Biodiversity -is the diversity among and within plant and animal species in a particular ecosystem.

Black market- where goods are traded illegally whether it be a physical locatable shop or on the Internet.

Bushmeat- is wild meat or game meat; referring to meat from non-domesticated mammals.

Captive breeding -refers to the method of breeding animals in a controlled environment and raising them under human care.

Captive-bred animals - term allotted to at minimum second-generation captive-bred animals, in other words an animal born in captivity to captive parents.

Domesticated (tamed)- species that have become adapted over time to life alongside humans.

Exotic pets- are species that have not been intensively and selectively bred for life with humans, this can include captive raised or wild caught species.

Exotic species -is an organism that is not native to that habitat.

Export- is in an item going out of the country to any other country of the world.

Illegal -not permitted or allowed.

Import -is an item coming inside a country from any other country.

Invasive species -is an exotic species whose introduction into an ecosystem in which the species is not native causes or is likely to cause environmental or economic harm or harm to human health.

Keystone species-are species that play essential roles in maintaining biological diversity of the ecological community and how an ecosystem functions.

Legal- permitted, allowed, lawful.

Live Auction is a method of buying goods at a location where the item is sold to the highest bidder.

Native species- species that occurs naturally within a region.

Non-native-a species living outside its native distributional range.

Pangolins- known as scaly anteaters, the species is at risk of extinction due the commercial hunting for human consumption.

Poaching- is when an animal is killed illegally, which could mean taking a wild resource out of season or through an illegal means.

Ranger- wildlife rangers are the men and women on the frontline of poaching, responsible for protecting endangered species within a protected natural area.

Smuggling- is the illegal transportation of objects or people including crossing international borders.

Traffic-is more conventionally used to indicate a tainted version of “trade;” refers to the act of trade (buying and selling) of flora and fauna illegally or against the law.

Wild-caught-species caught alive in the wild.

Wildlife farming- refers to the rearing of non-domesticated animals for the purpose of captive breeding.

Wildlife trade- is the selling of or exchange of wild animal and plant resources. This can include live animals and plants or a diverse range of products needed or prized by people such as skins, meat, medicinal ingredients, tourist trinkets, timber, fish and other food products.