

CLASSROOM ACTIVITY

Wild at Heart: The Plight of Elephants in Thailand

Elephants in Thailand have a big unemployment problem. Long a revered creature in traditional Asian cultures and a critical beast of burden for Asian economies, the captive elephant is becoming obsolete. Its plight has only worsened since 1989, when Thailand banned all logging operations, a major employer of these animals. Luckily, the thousands of captive elephants in Thailand have never been selectively bred and remain genetically wild. Watch how local and international scientists are reintroducing Asian elephants to the forest and reestablishing herd structures in hopes of reverting them to their most noble occupation—living wild.

CLASS DISCUSSION

Establish Prior Knowledge

Ask students what they know about Asian elephants. Tell them that they are a highly endangered species that face many threats: habitat loss, poaching, and capture of young for the entertainment and tourism industries. Point out that many Asian elephants live in captivity, but in the wild they are rare. Ask them to think about ways that an endangered species like the Asian elephant could be rescued.

Exploration

Have students watch the feature and take notes on the process used by the scientists in the story to reintroduce elephants into the wild. Then have them read the essay, “Elephants Return to the Forest.” Use the following questions to guide a class discussion:

- Why are elephants being reintroduced to the forests of Thailand?
- What question do scientists have about this reintroduction?
- What do scientists hypothesize?
- How are scientists testing their hypothesis? Why was a baby male elephant added to the group of female elephants? How did this change the group?
- How are scientists collecting data about the reintroduced elephants?
- Based on their observations, what are the data showing so far?

Wrap-Up

Use the following question to wrap up your discussion.

- Do you think the reintroduction of elephants to the wild can be replicated in other parts of Thailand? Support your answer.

Extend

Students who want to learn more about elephants in Thailand can visit these websites:

Thai Elephant Conservation Center: <http://www.changthai.com>

Elephant Reintroduction Foundation: <http://www.elephantreintroduction.org>

UN FAO: Gone Astray—The Care and Management of the Asian Elephant in Domesticity:
<http://www.fao.org/DOCREP/005/AC774E/AC774E00.HTM>

World Wildlife Fund Thailand: <http://www.wwfthai.org>

The Scientific Method

Research scientists use the Scientific Method (see page two) to investigate the natural world. You can use *Wild at Heart* to illustrate how scientists test their hypothesis about how to reintroduce an endangered species from captivity into the wild.

Scientific Process

The Scientific Method is a dynamic and open-ended process that scientists use when they investigate a question they have. It is not a series of prescribed steps that scientists follow to prove a hypothesis. Rather, it's a general plan that helps guide their investigation. And while all scientists use the Scientific Method, they might not use all the steps, or they may complete the steps in a different order. For example, a scientist might make observations and collect data about a subject that interests him or her for years before formulating a hypothesis.

DEFINING A QUESTION TO INVESTIGATE

As scientists conduct their research, they make observations and collect data. The observations and data often lead them to ask why something is the way it is. Scientists pursue answers to these questions in order to continue with their research. Once scientists have a good question to investigate, they begin to think of ways to answer it.

FORMING A HYPOTHESIS

A hypothesis is a possible answer to a question. It is based on: observations scientists make, existing theories, and information they gather from other sources. Once they have a hypothesis, scientists can begin to think about how to test it.

TESTING A HYPOTHESIS

Evidence is needed to support or disprove the hypothesis. There are several strategies for collecting evidence. Scientists can gather their data by observing the natural world, performing an experiment in a laboratory, or by running a model. Scientists decide what strategy to use, often combining strategies. Then they plan a procedure and gather their data. They make sure the procedure can be repeated, so that other scientists can evaluate their findings.

ANALYZING THE DATA

Scientists organize their data in tables, graphs, diagrams, and even photographs. If possible, they check the data by comparing it to data from other sources. They are looking for patterns that show connections between important variables in the hypothesis they are testing.

DRAWING CONCLUSIONS

Scientists must decide whether the data clearly support or do not support the hypothesis. If the results are not clear, they must rethink their procedure. If the results are clear, scientists write up their findings and results to share with others. The conclusions they draw usually present new questions for them to pursue.