

High School Curriculum Guide

Florida State Standards Aligned



With gratitude to:

THE EVOLUTION OF DR. JANE GOODALL

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TABLE OF CONTENTS

About this Toolkit	3
Activities	
Activity 1 - Design a Story Graph (Mathematics, Language Arts, Science)	4
Activity 2 - Exhibit Pamphlet (Language Arts, Science)	6
Activity 3 - Write A Resume (Language Arts).....	8
Activity 4 - Find The Hidden Treasure (Language Arts, Science).....	10
Activity 5 - True or False?	13
Vocabulary	15
Credits	16



ABOUT THIS TOOLKIT

This toolkit for educators provides resources to support students' visit to the National Geographic Society's [Becoming Jane](#) museum exhibition. Use these activities and discussion questions before or after your visit to the museum exhibition to engage students and deepen their learning on the life and work of Dr. Jane Goodall.

Visit natgeoed.org/jane for more free classroom resources.

This toolkit includes five activities for high school students. Included in each activity are facilitator tips, extension ideas, resources for further investigation, and curriculum standards and principles.

Activities included in this toolkit:

HIGH SCHOOL

- Design a Story Graph
- Exhibit Pamphlet
- Write a Resume
- Find the Hidden Treasure
- True or False?

ACTIVITY 1**DESIGN A STORY GRAPH** HIGH SCHOOL**STANDARDS:****MATHEMATICS (B.E.S.T)**

- MA.912.DP.1.1 - Given a set of data, select an appropriate method to represent the data based on the type and number of variables.
- MA.912.DP.1.2 - Interpret data distributions represented in various ways and explain components and quantities in the display.

ENGLISH LANGUAGE ARTS (B.E.S.T)

- ELA.10.C.1.4 - Write expository texts to explain and analyze information from multiple sources, using logical organization, purposeful transitions, and an appropriate tone and voice.
- ELA.K12.EE.1.1 - Cite evidence to explain and justify reasoning.

SCIENCE

- SC.912.L.17.5 - Analyze how population size is affected by births, deaths, immigration, emigration, and limiting factors that determine carrying capacity.
- SC.912.L.17.8 - Recognize consequences of biodiversity loss associated with catastrophic events, climate changes, human activity, and invasive species.

Teacher Notes:

This activity provides practice in mathematics, science, and literacy and is paced for one class period.

- A key skill is transforming quantitative information into a clear visual message.
- At the Grade 10 level, ask students to justify the graph type they select, label the limits of the data, and distinguish between a documented value and an estimate.
- Review examples of science journalism or conservation infographics before students begin.
- Discuss how empathy and careful observation influenced Dr. Goodall's approach to animal research, while emphasizing that scientific claims must be supported by evidence.

The *Becoming Jane* museum exhibit tells the story of Dr. Jane Goodall's life and work with chimpanzees and conservation. Over the years, Dr. Goodall and her team have tracked the [populations of chimpanzees](#) and other African apes in the wild.

Researchers estimate that the chimpanzee population has declined from 1 million in 1900 to less than 300,000 today. Your graph should help people understand why the chimpanzee is on the World Wildlife Fund's Endangered Species List.

DISCUSS: Why do you think these numbers are called estimates? What information would you need to judge the reliability of an estimate?

TO DO: As a member of the [Jane Goodall Institute's](#) Public Communications Team, use the data to design a graph showing the decline in the size of the chimpanzee population over time. Select a graph type that accurately communicates the change, identify the source and limitations of the data, and add a short evidence-based caption explaining what the visualization shows and what it does not prove.

DISCUSS: What factors may be contributing to the chimpanzee's endangered status? Which claims can be supported by evidence from your sources?

DISCUSS: What skills and knowledge does a researcher on the Goodall team need? What skills and knowledge does a science writer or communications professional need? Where do those skill sets overlap?

Extensions:

- Assign one discussion question as a written or oral evidence-based report.
- Students take a [leadership self-assessment](#) and connect results to scientific or communications careers.
- Students invite a local expert to discuss endangered species, field research, data visualization, or conservation communication.
- Students compare two visualizations of the same environmental issue and evaluate which communicates evidence more responsibly.

Resources:

- [National Geographic Education Resource Library](#)
- [Roots & Shoots Compassionate Traits](#)
- [What is an Infographic?](#)
- [World Wildlife Fund: Chimpanzee](#)



ACTIVITY 2**EXHIBIT PAMPHLET** HIGH SCHOOL**STANDARDS:****ENGLISH LANGUAGE ARTS (B.E.S.T)**

- ELA.10.C.1.4 - Write expository texts to explain and analyze information from multiple sources, with logical organization, purposeful transitions, and task-appropriate tone and voice.
- ELA.10.C.4.1 - Conduct research to answer a question, synthesizing information from multiple reliable and valid sources and demonstrating understanding of the subject.
- ELA.10.V.1.1 - Integrate grade-appropriate academic vocabulary in speaking and writing.

SCIENCE

- SC.912.L.17.8 - Recognize consequences of biodiversity loss due to catastrophic events, climate changes, human activity, and invasive species.
- SC.912.L.17.20 - Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.

Teacher Notes:

This activity provides practice in life science, research, and audience-centered writing and is paced for one or two periods.

- Students learn about Dr. Goodall's work while creating concise public-facing science communication.
- At Grade 10, require students to synthesize at least two reliable sources, paraphrase accurately, credit sources, and make deliberate choices about audience, organization, evidence, and tone.
- If possible, have students use digital design tools to create a polished museum pamphlet.

The *Becoming Jane* museum exhibit tells the story of Dr. Jane Goodall's life and work with chimpanzees and conservation. The museum needs a pamphlet for high school visitors.

■ T O D O: The following words relate to Dr. Goodall's research with chimpanzees and her work to help save them. After researching Dr. Goodall's work with chimpanzees, use the terms accurately in a museum pamphlet for a Grade 9-12 audience. Include a clear central message, evidence from reliable sources, and brief source credits.

- | | |
|----------------|------------------|
| 1. chimpanzees | 8. mission |
| 2. species | 9. behaviors |
| 3. habitats | 10. conservation |
| 4. sanctuary | 11. Tanzania |
| 5. endangered | 12. impact |
| 6. extinction | 13. research |
| 7. compassion | 14. empathy |

■ DISCUSS: What are the two most important ideas high school visitors should understand about Dr. Goodall's work, and what evidence supports your choices?

■ DISCUSS: What made Dr. Goodall's observations and research different from other researchers of her time?

Extensions:

- Place completed pamphlets in the school library or share them digitally with another class.
- Invite a local expert on animal habitats, conservation, museum education, or science communication to critique the pamphlets for accuracy and audience appeal.

Resources:

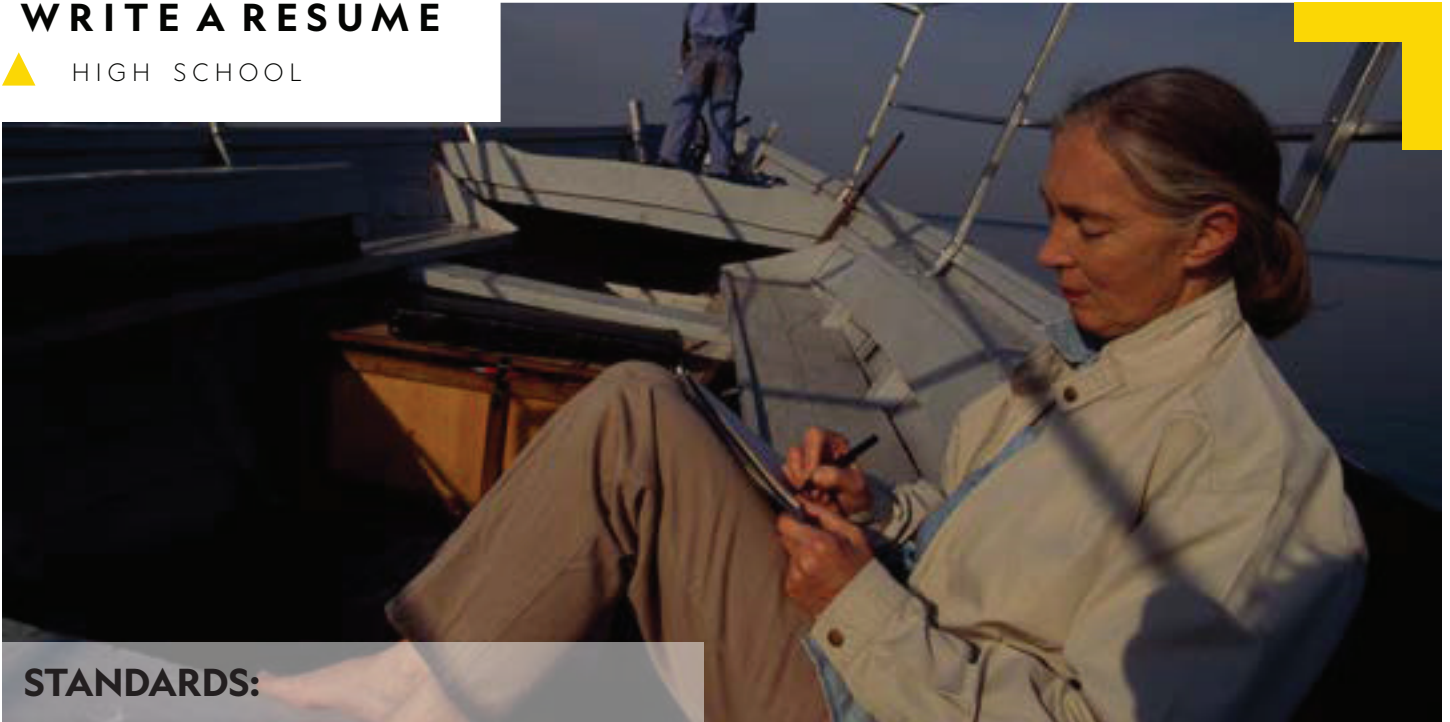
- [Jane Goodall Institute](https://www.jane-goodall.org/)
- [National Geographic Education Resource Library](https://www.natgeo.org/education/)



ACTIVITY 3

WRITE A RESUME

▲ HIGH SCHOOL



STANDARDS:

ENGLISH LANGUAGE ARTS (B.E.S.T.)

- ELA.10.C.4.1 - Conduct research to answer a question, synthesizing information from multiple reliable and valid sources and demonstrating understanding of the subject.
- ELA.10.C.1.5 - Improve writing by considering feedback and revising to address the needs of a specific audience.
- ELA.K12.EE.5.1 - Use the accepted rules governing a specific format to create quality work.
- ELA.K12.EE.6.1 - Use appropriate voice and tone when speaking or writing.

Teacher Notes:

This activity addresses research, workplace literacy, and career exploration and is paced for two periods.

- Students research the Jane Goodall Institute, identify qualifications for a role, and translate relevant academic, extracurricular, volunteer, and transferable skills into a professional one-page resume.
- Grade 10 students should tailor language to the role, use action verbs, avoid inventing experience, and revise for clarity, consistency, and audience.

The *Becoming Jane* museum exhibit tells the story of Dr. Jane Goodall's life and work with chimpanzees and conservation. This activity helps you learn about her work and the skills and knowledge you need to do the work of conservationists.

TO DO: Imagine you are applying for a future internship or entry-level role with the Jane Goodall Institute. You may focus on research, communications, education, youth programs, or animal care. Write a one-page resume tailored to the role you choose.

1. Research the Jane Goodall Institute and the area of work that interests you. Identify qualifications and responsibilities that appear relevant.
2. List the knowledge, technical skills, communication skills, and compassionate-leadership traits the role requires.
3. Review the traits of a compassionate leader.
4. Use a professional resume template. Include only truthful experiences and skills. If you do not yet have formal work experience, draw on school projects, clubs, service, volunteering, and other relevant experiences.
5. Revise your resume for organization, word choice, formatting, and audience.

DISCUSS: Why do you think Dr. Goodall was so interested in chimpanzees that she spent many years studying them?

DISCUSS: Why does the role you chose interest you, and what experiences could you pursue in high school to prepare for it?

Extensions:

- Students participate in mock interviews for their chosen roles.
- Students write a tailored cover letter.
- Students invite a science researcher, conservation professional, communications professional, educator, or animal caretaker to discuss career pathways.
- Students design their own service-learning "internship" by identifying a local challenge, defining a role, and implementing a project to address it.

Resources:

- [Resume and Cover Letter Templates](#)
- [Jane Goodall Insitute](#)
- [Roots & Shoots Toolkit](#)



SCAN FOR
RESOURCES



ACTIVITY 4**FIND THE HIDDEN TREASURE** HIGH SCHOOL**STANDARDS:****ENGLISH LANGUAGE ARTS (B.E.S.T)**

- ELA.10.V.1.3 - Apply knowledge of context clues, figurative language, word relationships, reference materials, and/or background knowledge to determine connotative and denotative meanings of grade-level words and phrases.
- ELA.10.C.4.1 - Conduct research using multiple reliable and valid sources.

SCIENCE

- SC.912.L.17.8 - Recognize consequences of losses of biodiversity due to catastrophic events, climate changes, human activity, and invasive species.
- SC.912.L.17.20 - Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.

Teacher Notes:

This activity develops academic vocabulary, contextual analysis, and science literacy and is paced for one or two periods.

- A key skill is moving beyond a dictionary definition to examine how disciplinary context changes a word's meaning.
- Ask students to identify denotation, connotation, scientific usage, and word relationships, then support interpretations with context from the excerpt or a reliable reference source.

Hidden ideas for discussion:

1. Species—the idea that scientists construct intellectual order by identifying living and non-living things in groups with common traits. (Other words are *class* or *genus*..)
 2. Habitats—the significance of places to live. (Is a habitat the same thing as a *home*??)
 3. Sanctuary—the idea that there are dangers that cause animals (and people) to seek a safe place to live
 4. Endangered—the idea that animals (and other things such as languages and traditions) are not always safe from harm by social and environmental forces or events
 5. Extinction—the idea that social and environmental forces and events can cause a species to die out
 6. Mission—the idea of pursuing a cause or having a sense of duty
 7. Behaviors—the idea that animals (and people) act in certain ways for specific reasons
 8. Impact—the idea that actions have results and consequences positive, negative, and indifferent
 9. Environment –natural or man-made surroundings and their conditions
- Students work in pairs or small groups to complete the TO DOs.
 - Conduct a class discussion to find the hidden meanings.

The *Becoming Jane* museum exhibit tells the story of Dr. Jane Goodall's life and work with chimpanzees and conservation.

The following words relate to Dr. Jane Goodall's work in Africa, where she studied chimpanzees and worked to protect them and their habitats. Seek out the meanings of these words to better understand her work and the research and conservation work that continues today. Many words are linguistic treasures because they hold more than one meaning and can lead us to other ideas.

■ T O D O: Study this list of treasure words by looking up their dictionary meanings, then talk about the ideas hidden in them.

- | | | |
|--------------|---------------|----------------|
| 1. species | 4. endangered | 7. behaviors |
| 2. habitats | 5. extinction | 8. impact |
| 3. sanctuary | 6. mission | 9. environment |

■ T O D O: Read these excerpts from Dr. Goodall's Institute and fill in the blanks with the treasure words from the list above.

1. The Gombe Stream Research Center was founded in 1965 to advance Jane Goodall's revolutionary findings about chimpanzee tool-making and other _____.
2. We're on a _____ to save chimpanzees from _____. Together, we can turn these numbers around.
3. The Jane Goodall Institute believes that the best way to protect healthy _____ is to focus on actions that not only protect _____ animals but also benefit the local people whose lives depend on a healthy _____.

DISCUSS: What can individuals, communities, governments, and conservation organizations do to protect chimpanzees and reduce extinction risk? Distinguish ideas supported by evidence from ideas that require more research.

DISCUSS: Which threatened or endangered species live in Florida or your local region? What factors affect their survival?

Answers: Excerpts from the [Jane Goodall Institute](#)

1. behaviors
2. mission; extinction
3. habitats; endangered; environment

Extensions:

- During a visit to the Becoming Jane exhibit or online research, locate these words in authentic texts and analyze how context shapes their meaning.
- Start or support a Roots & Shoots group at your school to address a local or global conservation issue.
- Invite a local expert on habitats, wildlife, land use, or conservation policy to participate in a discussion.

Resources:

- [Jane Goodall Institute](#)
- [National Geographic Education Resource Library](#)
- [World Wildlife Fund Species Directory](#)
- [Roots & Shoots](#)

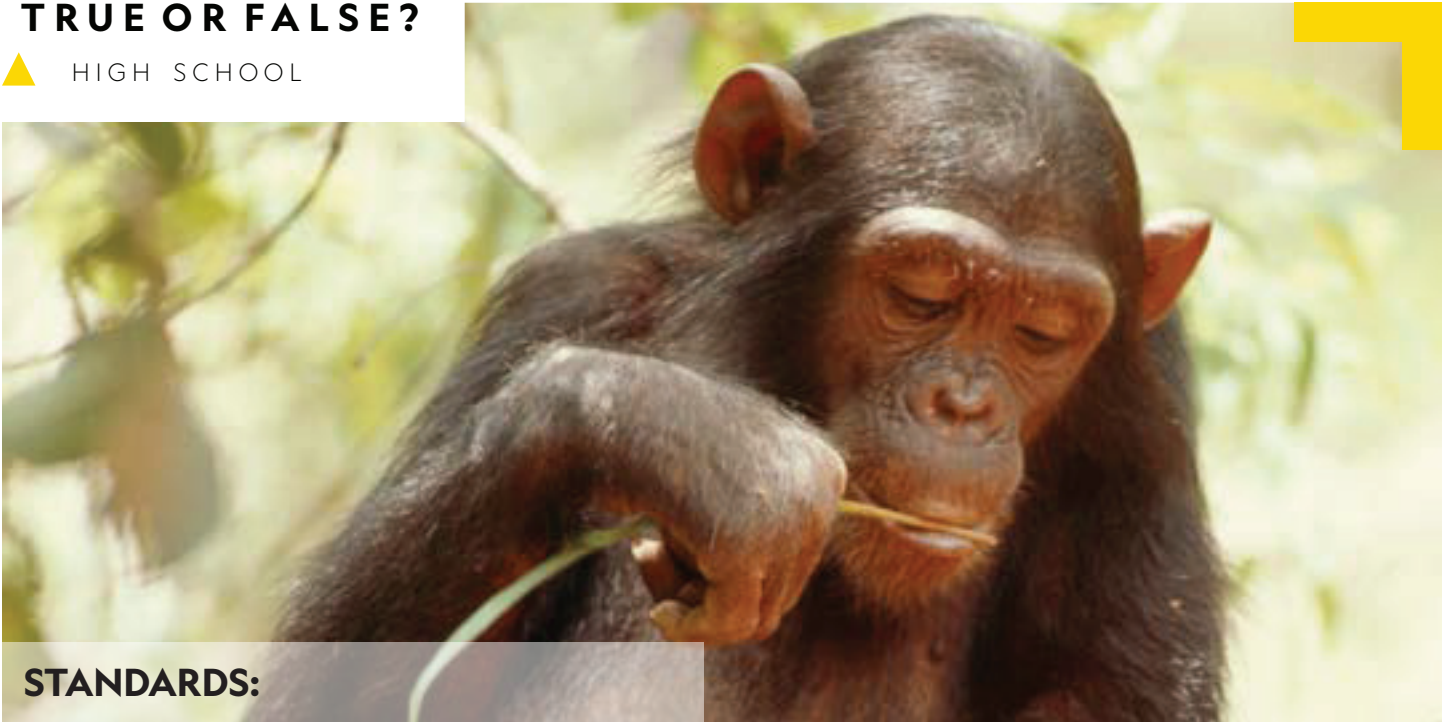


SCAN FOR
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ACTIVITY 5

TRUE OR FALSE?

▲ HIGH SCHOOL



STANDARDS:

ENGLISH LANGUAGE ARTS (B.E.S.T)

- ELA.10.R.2.1 - Analyze the impact of multiple text structures and the use of features in informational texts.
- ELA.10.R.3.2 - Paraphrase content from grade-level texts.
- ELA.K12.EE.1.1 - Cite evidence to explain and justify reasoning.

SCIENCE

- SC.912.N.1.4 - Identify sources of information and assess their reliability according to scientific standards.
- SC.912.L.17.8 - Recognize consequences of biodiversity loss, including effects associated with human activity and environmental change.

Teacher Notes:

This activity addresses scientific literacy, evidence evaluation, and source reliability and is paced for one or two periods.

- Before checking answers, require students to label each statement True, False, or Needs Verification and record a brief reason. Then have students verify claims with reputable sources, noting when a statement is oversimplified, context-dependent, or outdated.
- The goal is not only to identify facts, but to practice responsible fact-checking.

The *Becoming Jane* museum exhibit tells the story of Dr. Jane Goodall's life and work in Africa with chimpanzees and conservation. This activity helps you learn about her work and the animals she has spent most of her life studying.

■ T O D O: Imagine you are on a quiz show. Decide whether each statement is true or false.

For Grade 10, add a third option, Needs Verification, when a claim cannot be responsibly judged without checking a source. After making your first choices, use the National Geographic Education resource on chimpanzees and at least one additional reputable source to verify your reasoning.

- | | |
|--|--|
| 1. Chimpanzees are more like gorillas than humans. | 8. Chimpanzees spend a lot of time picking insects out of their fur. |
| 2. Chimpanzees are called "knuckle walkers." | 9. Chimpanzees live in the wild all over the world. |
| 3. Chimpanzees can live in forests for up to 100 years. | 10. Chimpanzees can get a cold from humans. |
| 4. Chimpanzees live in deserts. | 11. Chimpanzees use tools to crack open nuts to eat. |
| 5. Chimpanzees never laugh. | 12. Chimpanzees make good pets. |
| 6. Chimpanzees like a lot of different foods, unlike other apes. | 13. Chimpanzees are not endangered. |
| 7. Chimpanzees kiss, hug, and tickle each other. | |

■ DISCUSS:

- Which three claims were most interesting or surprising to you? What evidence changed or strengthened your thinking?
- Why do you think Dr. Goodall was so interested in chimpanzees that she spent many years studying them?
- How does the reliability of the source affect your confidence in a scientific claim? What features make a source more trustworthy?

Fun fact: Jane first learned about and fell in love with the unique personality of animals with a neighbor dog named Rusty.

Answers:

- | | |
|---|---|
| 1. *Chimpanzees are more like gorillas than humans. (F) | 8. *Chimpanzees spend a lot of time picking insects out of their fur. (T) |
| 2. *Chimpanzees are called "knuckle walkers." (T) | 9. *Chimpanzees live in the wild all over the world. (F) |
| 3. *Chimpanzees can live in the forests for up to 100 years. (F) | 10. *Chimpanzees can get a cold from humans. (T) |
| 4. *Chimpanzees live in deserts. (F) | 11. *Chimpanzees use tools to crack open nuts to eat. (T) |
| 5. *Chimpanzees never laugh. (F) | 12. *Chimpanzees make good pets. (F) |
| 6. *Chimpanzees like a lot of different foods, unlike other apes. (T) | 13. *Chimpanzees are not endangered. (F) |
| 7. *Chimpanzees kiss, hug, and tickle each other. (T) | |

Teacher Notes:

Because animal-behavior and conservation information can be updated or nuanced, use the source-checking step as part of the lesson rather than treating the key as a substitute for evidence.

Extensions:

- Students respond to one discussion question in a short evidence-based written or oral report.
- Students invite an expert to discuss chimpanzee behavior, primatology, animal welfare, or conservation.
- Students create a fact-checking quiz using claims drawn from reliable sources and provide citations and explanations for each answer.

Resources:

- [National Geographic Education: Chimpanzees](#)
- [Jane Goodall Institute](#)
- [National Geographic Education Resource Library](#)



VOCABULARY

chimpanzee (noun)

- large, intelligent ape native to Africa.

behavior (noun)

- anything an organism does involving action or response to stimulation.

chimpanzee (noun)

- large, intelligent ape native to Africa.

communication (noun)

- sharing of information and ideas.

conservation (noun)

- management of a natural resource to prevent exploitation, destruction, or neglect.

data (plural noun)

- (singular: datum) information collected during a scientific study.

empathy (noun)

- ability to identify and respect the emotions and attitudes of others.

endangered species (noun)

- organisms threatened with extinction.

environment (noun)

- conditions that surround and influence an organism or community.

estimate (noun)

- a guess based on knowledge of the situation or object.

extinction (noun)

- process of complete disappearance of a species from Earth.

habitat (noun)

- environment where an organism lives throughout the year or for shorter periods of time.

mission (noun)

- important goal or purpose.

observation (noun)

- something that is learned from watching and measuring an object or pattern.

population (noun)

- total number of people or organisms in a particular area.

research (noun)

- scientific observations and investigation into a subject, usually following the scientific method: observation, hypothesis, prediction, experimentation, analysis, and conclusion.

sanctuary (noun)

- protected area where wildlife can live and breed without threat from hunting.

species (noun)

- group of similar organisms that can reproduce with each other.

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