



# BECOMING JANE

THE EVOLUTION OF DR. JANE GOODALL



## TABLE OF CONTENTS

<b>About this Toolkit</b> .....	<b>2</b>
<b>Activities for Upper Elementary School Students</b> .....	<b>3</b>
Design a Story Graph .....	<b>3</b>
Exhibit Pamphlet .....	<b>6</b>
Write a Resume .....	<b>9</b>
Find the Hidden Treasure .....	<b>12</b>
True or False .....	<b>16</b>
<b>Activities for Middle School Students</b> .....	<b>19</b>
Design a Story Graph .....	<b>19</b>
Exhibit Pamphlet .....	<b>22</b>
Write a Resume .....	<b>25</b>
Find the Hidden Treasure .....	<b>28</b>
True or False .....	<b>32</b>
A Story to Tell .....	<b>35</b>
<b>Vocabulary</b> .....	<b>37</b>
<b>Credits</b> .....	<b>38</b>





## 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](https://natgeoed.org/jane) for more free classroom resources.

This toolkit includes 11 standalone activities; five for upper elementary school students and six for middle school students. Included in each activity are facilitator tips, extension ideas, resources for further investigation, and connections to national curriculum standards and principles.

Activities included in this toolkit:

### ▼ UPPER ELEMENTARY

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

### ▲ MIDDLE SCHOOL

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





## DESIGN A STORY GRAPH

▼ UPPER ELEMENTARY



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*?

■ **TO DO:** As a member of the Jane Goodall Institute's Public Communications Team, you have been asked to use this data to design a graph of the decline in the size of the chimpanzee population over the years. Use your creative talents so that people can see and understand the change in population that has resulted in the chimpanzee becoming one of the many animals on the Endangered Species List. Add a short caption about the graph.

■ **DISCUSS:** What do you think is happening to put the chimpanzee on the Endangered Species List?

■ **DISCUSS:** What skills and knowledge do you think a researcher on the Goodall team needs to have? What skills and knowledge do you think a science writer needs to have?



**Teacher Notes:**

This activity provides practice in STEM (math) and literacy (speaking and listening) standards and is paced for one period. A key skill practiced in this activity is the ability to transform data into visual information.

- Review how publications present graphs. One example is USA Today which publishes graphs on different topics and uses creative designs.
- Regarding the skills a researcher needs, Dr. Goodall revolutionized animal research with her compassion and empathy. She was the first to see chimpanzees as having feelings and personalities.

**Standards:**

- STEM+L: STEM careers
- **CCSS.MATH.CONTENT.5.MD.B.2**—Represent and interpret data.
- **CCSS.ELA-LITERACY.W.5.6**—With some guidance and support from adults, use technology, including the internet, to produce and publish writing.
- **CCSS.ELA Literacy.SL.5.1**—Engage effectively in a range of collaborative discussions with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
- **CCSS.ELA-LITERACY.W.5.2**—Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

**Resources:**

- **National Geographic Education Resource Library**
- **Roots & Shoots Compassionate Traits**
- **What is an Infographic?**
- **NCES Kids’ Zone: Create a Graph**

**Extensions:**

- Assign one of the questions as a written or oral report activity.
- Students take a **leadership self-assessment**.
- Students invite a local expert to talk to them about chimpanzees as endangered species.
- Students mount a hallway exhibit of their graphs.



## EXHIBIT PAMPHLET

▼ UPPER ELEMENTARY



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 school kids visiting the exhibit.

**TO DO:** The following words relate to Dr. Goodall's research with chimpanzees and her work to help to save them. After reading about Dr. Goodall's work with chimpanzees and studying the list of words, use the words in your pamphlet.

1. chimpanzees
2. species
3. habitats
4. sanctuary
5. compassion
6. endangered
7. extinction
8. behaviors
9. conservation
10. empathy

**DISCUSS:** What do you think is most important for school kids to know about Dr. Goodall's work with chimpanzees?

**DISCUSS:** What made Dr. Goodall different from other researchers of her time?



**Teacher Notes:**

This activity provides practice in STEM (life science) and literacy (writing, language) skills and is paced for one or two periods. Students learn about Goodall's work and practice writing for a specific audience and purpose. This activity also provides an opportunity to teach ways in which writers use sources without plagiarizing.

If possible, have students use computer resources to create their pamphlets.

This activity also offers the opportunity to discuss the role of research and writing in Dr. Goodall's work and in STEM careers.

**Standards:**

- STEM+L: STEM careers
- **National Geography Standard 6:** Describe examples of how perceptions of places and regions are based on direct and indirect experiences.
- **CCSS.ELA-LITERACY.W.5.6**—With some guidance and support from adults, use technology, including the internet, to produce and publish writing
- **CCSS.ELA-LITERACY.W.5.2**—Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- **CCSS.ELA-LITERACY.W.5.2.D**—Use precise language and domain-specific vocabulary to inform about or explain the topic.

**Resources:**

- **Jane Goodall Institute**
- **National Geographic Education Resource Library**

**Extensions:**

- Students place their pamphlets in the school library.
- Students invite a local expert on animal habitats to engage in a discussion with them.



## WRITE A RESUME

▼ UPPER ELEMENTARY



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 scientists and conservationists.

**TO DO:** Imagine you are applying for a job with Dr. Goodall's Institute. You may apply to be a researcher, a communications officer, or an animal caretaker. Write a one-page resume to apply for the job you choose.

1. Be sure to read about the [Jane Goodall Institute](#) and the work you are interested in. Identify the skills you need to have.
2. List the skills and knowledge needed for the position you are applying for.
3. Review the [traits of a compassionate leader](#).
4. Use a resume template to write your resume.

### DISCUSS:

- Why do you think Dr. Goodall was so interested in chimpanzees that she spent many years studying them?
- Why would you like to do the job you chose?



**Teacher Notes:**

This activity addresses skills in STEM and literacy and is paced for two periods. Key skills practiced in this activity are the abilities to do research for a workplace purpose, to identify relevant factors, and to write a workplace document.

Day 1: Review sample resume/s and discuss the features; research the Institute or visit the exhibit; list skills and knowledge relevant to position.

Day 2: Draft a resume, edit, and rewrite final copy. Conduct a guided discussion.

**Standards:**

- STEM+L: STEM Careers
- **CCSS.ELA-LITERACY.W.5.6**—With some guidance and support from adults, use technology, including the internet, to produce and publish writing.
- **CCSS.ELA-LITERACY.W.5.2**—Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

**Extensions:**

- Students participate in mock interviews for their jobs.
- Students write a cover letter.
- Students invite a science researcher specializing in animals or a zoo caretaker to talk about the work.
- Students may not be old enough to apply for these internships now, but that does not mean they need to wait to make a difference. Students design their own internship by identifying a challenge and implementing a project to solve it.

**Resources:**

- **Resume and Cover Letter Templates**
- **Roots & Shoots Toolkit**

\*Literacy – Write informational texts; produce clear and coherent writing.

\*Technology – Use technology to produce and publish products.



## FIND THE HIDDEN TREASURE

▼ UPPER ELEMENTARY



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 studies and protects chimpanzees and their habitats. Seek out the meanings of these words to better understand her work. Many words are linguistic treasures because they hold more than one meaning and can lead us to other ideas.

**TO DO:** 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 |

**TO DO:** Read these excerpts from Dr. Goodall's Institute and fill in the blanks with the treasure words from the list above.

- The Gombe Stream Research Centre was founded in 1965 to advance Jane Goodall's revolutionary findings about chimpanzee tool-making and other \_\_\_\_\_.
- We're on a \_\_\_\_\_ to save chimpanzees from \_\_\_\_\_. Together, we can turn these numbers around.
- 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 do you think people can do to protect chimpanzees and save them from extinction?

**DISCUSS:** Are there any endangered species that live around you?



**Teacher Notes:**

This activity provides practice in STEM and literacy skills and is paced for one or two periods. A key skill practiced in this activity is the ability to make connections among word meanings and ideas.

*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.

**Standards:**

- **CCSS-ELA-LITERACY.L.5.4**—Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.

**Answers:** Excerpts from the Jane Goodall Institute

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

**Resources:**

- [Jane Goodall Institute](#)
- [National Geographic Education Resource Library](#)
- [World Wildlife Fund’s Endangered Species List](#)

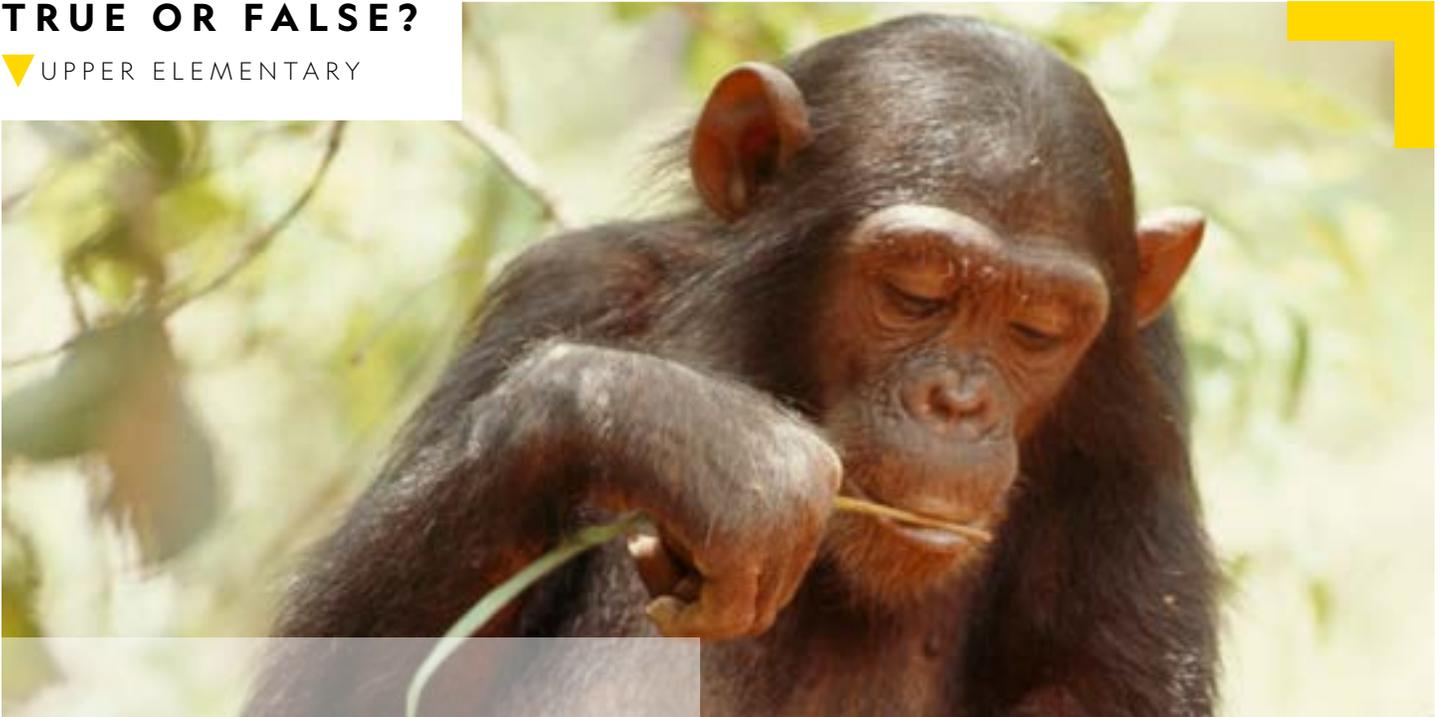
**Extensions:**

- If your class visits the Jane Goodall Exhibit or reads about it online, ask students to look for these words and think about how they are used in the texts.
- Start a **Roots & Shoots** group at your school to help endangered species both locally and globally.
- Students invite a local expert on animal habitats (or any other related topic) to engage in a discussion with them.



## TRUE OR FALSE?

▼ UPPER ELEMENTARY



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.

**TO DO:** Imagine you are on a quiz show, and you must say which of these statements are true and which are false. Hit the button and give your answer! When you are finished, visit the [Jane Goodall Institute's Chimp Facts](#) website to check your answers.

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Chimpanzees are more like gorillas than humans.</li> <li>2. Chimpanzees are called "knuckle walkers."</li> <li>3. Chimpanzees can live in the forests for up to 100 years.</li> <li>4. Chimpanzees live in deserts.</li> <li>5. Chimpanzees never laugh.</li> <li>6. Chimpanzees like a lot of different foods, unlike other apes.</li> <li>7. Chimpanzees kiss, hug, and tickle each other.</li> </ol> | <ol style="list-style-type: none"> <li>8. Chimpanzees spend a lot of time picking insects out of their fur.</li> <li>9. Chimpanzees live in the wild all over the world.</li> <li>10. Chimpanzees can get a cold from humans.</li> <li>11. Chimpanzees use tools to crack open nuts to eat.</li> <li>12. Chimpanzees make good pets.</li> <li>13. Chimpanzees are not endangered.</li> </ol> |
|---|--|

### DISCUSS:

- What three facts are most interesting to you? Why?
- Why do you think Dr. Goodall was so interested in chimpanzees that she spent many years studying them?
- Are there any pets or animals you interact with each day who also share some of the same traits as chimpanzees?  
*Fun fact: Jane first learned about and fell in love with the unique personality of animals with a neighbor dog named Rusty.*



**Teacher Notes:**

This activity addresses skills in STEM and literacy and is paced for one or two periods. A key skill practiced in this activity is the ability to determine what is factual and what is not.

- There are a variety of instructional strategies you can use with this activity, such as the following:
  - Host a game show such as Jeopardy.
  - Assign small groups to answer statements; then have students post their answers.
  - Hold a guided discussion or seminar using the discussion questions and facts.

**Standards:**

**CCSS.ELA-LITERACY.RI.5.1**—Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

**Resources:**

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

**Extensions:**

- Students respond to one of the questions in writing or in an oral report.
- Students invite an expert to talk to them about chimpanzees.
- Students host a quiz show on these and other facts about Dr. Goodall's work.

**Answers:**

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



## DESIGN A STORY GRAPH

▲ MIDDLE SCHOOL



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.

■ **TO DO:** You work for the Jane Goodall Institute in public communications. You have been asked to transform the data in the quote below into graph form by using the data to graph the decline in the size of the chimpanzee population and the decline in African ape populations over the ensuing years. Use your creative talents to design one or two graphs that not only show the data but also tell the story. There may be more than one story to tell. What story do you want to tell?

*"Where they numbered perhaps 1 million at the turn of the 20th century, today it's estimated there are 172,000–300,000 chimpanzees remaining in the wild. Current trends indicate that African ape populations will decline by an additional 80 percent in the next 30–40 years. We have a generation and a half— possibly two— to alter the trend."*

■ **DISCUSS:** Why do you think these numbers are called estimates?

■ **DISCUSS:** How important are data when you are reporting on or discussing this topic or any science topic in the news?



**Teacher Notes:**

This activity provides practice in STEM, literacy, and critical thinking skills. It is paced for two periods.

- A key skill practiced in this activity is the ability to transform data into visual information. Another skill is how to use data as a starting point for talking about related topics.
- Review how publications present graphs using imagery in the form of infographics.
- Students might make one graph with both data points or two graphs with separate data points. One way to manage the activity is to divide the class into two groups and assign each set of data to one of the two groups.
- Discuss ways in which students may show the data point spread—172,000 to 300,000—in a graph.
- Discuss how to show the data point about the African ape. Students need to find a population estimate for the current population to compute the decline of the African ape over the next 30–40 years.

**Standards:**

- **CCSS.MATH.CONTENT.5.MD.B.2**—Represent and interpret data.
- **CCSS.ELA-LITERACY.WHST.6-8.6**—Use technology to produce and publish products.
- **CCSS.ELA-LITERACY.SL.7.1**—Engage effectively in a range of collaborative discussions with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.

**Resources:**

- **Jane Goodall Institute: State of the Wild Chimpanzee**
- **National Geographic Education Resource Library**
- **What is an Infographic?**
- **NCES Kids' Zone: Create a Graph**

**Extensions:**

- Assign one of the questions as a writing or oral report activity.
- Display graphs in a hallway exhibit with captions to explain the content.
- Invite a local expert to discuss the issues of endangered species and extinction as well as the impact of these issues and solutions to these issues.



**EXHIBIT PAMPHLET**

▲ MIDDLE SCHOOL



**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 school kids visiting the exhibit.**

**TO DO:** The following words relate to Dr. Goodall’s research with chimpanzees and her work to help to save them. After reading about Dr. Goodall’s work in conservation and studying these words, use these words in a pamphlet you create.

- |                |                  |
|----------------|------------------|
| 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 do you think are the two most important things school kids should know about Dr. Goodall’s work?

**DISCUSS:** What made Dr. Goodall different from other researchers of her time?



**Teacher Notes:**

This activity provides practice in STEM (life science) and literacy (writing, language) skills and is paced for one or two periods. Students learn about Dr. Goodall's work and practice writing for a specific audience and purpose. This activity also provides an opportunity to teach ways in which writers use sources without plagiarizing. If possible, have students use computer resources to create their pamphlets.

Conduct a discussion on the role of writing and communications in Dr. Goodall's work and in STEM careers.

**Standards:**

- STEM+L: STEM careers
- **National Geography Standard 6:** Describe examples of how perceptions of places and regions are based on direct and indirect experiences.
- **CCSS.ELA-LITERACY.WHST.6-8.6**—Use technology to produce and publish product.
- **CCSS.ELA-LITERACY.W.7.2**—Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
- **CCSS.ELA-LITERACY.W.7.2.C**—Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.

**Resources:**

- **Jane Goodall Institute**
- **National Geographic Education Resource Library**

**Extensions:**

- Students place their pamphlets in the school library.
- Students invite a local expert on animal habitats to engage in a discussion with them.



## WRITE A RESUME

▲ MIDDLE SCHOOL



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 an internship with Dr. Goodall's Institute.

1. Read about the **Jane Goodall Institute**.
2. Read the **requirements for the internships**.
3. Review the **traits of a compassionate leader**.
4. Identify the internship you would like to apply for.
5. List the skills and knowledge needed for the internship.
6. Use a resume template to write your resume for the internship.
7. (Optional) Write a cover letter for the internship.

■ **DISCUSS:** How might the work the Jane Goodall Institute does influence policies and practices in conservation?



**Teacher Notes:**

This activity addresses skills in STEM and literacy and is paced for two periods. Key skills practiced in this activity are the abilities to do research for a work-place purpose, to identify relevant factors, and to write a workplace document. This activity offers an opportunity to discuss the role of internships as students think about future careers.

Day 1: Review sample resume/s; research the Institute or visit the exhibit; read internship requirements; list skills and knowledge.

Day 2: Draft a resume, edit, and rewrite final copy. Conduct guided discussion.

Day 3: (Optional) Write a cover letter.

**Standards:**

- STEM+L: STEM Careers
- **CCSS.ELA-LITERACY.WHST.6-8.6**—Use technology to produce and publish product.
- **CCSS.ELA-LITERACY.W.7.2**—Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
- **CCSS.ELA-LITERACY.W.7.2.C**—Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.

**Extensions:**

- Students participate in mock interviews for their jobs.
- Students write a cover letter.
- Students invite a science researcher specializing in animals or zoo caretaker to talk about the work.
- Students may not be old enough to apply for these internships now, but that does not mean they need to wait to make a difference. Students design their own internship by identifying a challenge and implementing a project to solve it.

**Resources:**

- **Resume and Cover Letter Templates**
- **Roots & Shoots Toolkit**



## FIND THE HIDDEN TREASURE

▲ MIDDLE SCHOOL



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 studies and protects chimpanzees and their habitats. Seek out the meanings of these words to better understand her work. Many words are linguistic treasures because they hold more than one meaning and can lead us to other ideas.

■ **TO DO:** 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 |

■ **TO DO:** Read these excerpts from Dr. Goodall's Institute and fill in the blanks with the treasure words from the list above.

- The Gombe Stream Research Centre was founded in 1965 to advance Jane Goodall's revolutionary findings about chimpanzee tool-making and other \_\_\_\_\_.
- We're on a \_\_\_\_\_ to save chimpanzees from \_\_\_\_\_. Together, we can turn these numbers around.
- 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 do you think people can do to protect chimpanzees and save them from extinction?

■ **DISCUSS:** Are there any endangered species that live around you?



**Teacher Notes:**

This activity provides practice in STEM and literacy skills and is paced for one or two periods. A key skill practiced in this activity is the ability to make connections among word meanings and ideas.

*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.

**Standards:**

- **CCSS-ELA-LITERACY.L.7.4**—Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.

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

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

**Resources:**

- [Jane Goodall Institute](#)
- [National Geographic Education Resource Library](#)
- [World Wildlife Fund’s Endangered Species List](#)

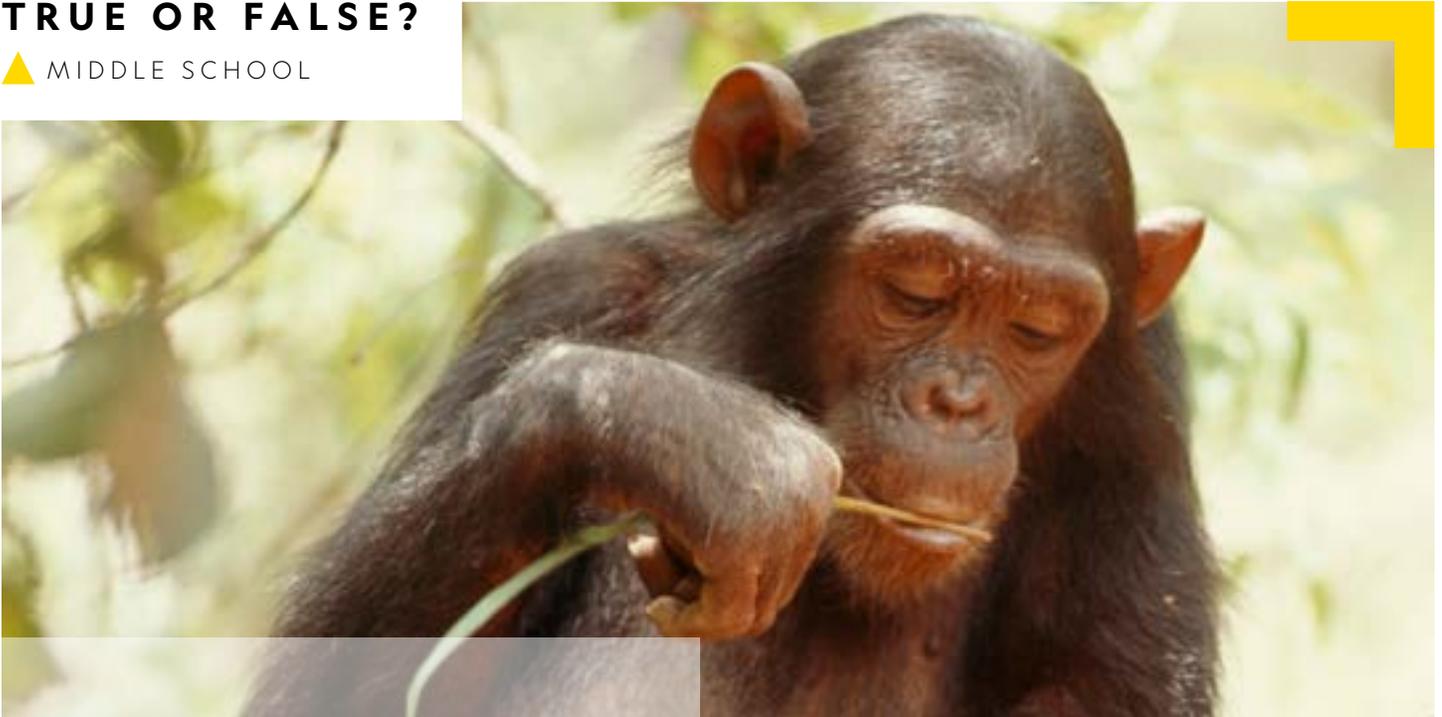
**Extensions:**

- If your class visits the Jane Goodall Exhibit or reads about it online, ask students to look for these words and think about how they are used in the texts.
- Students invite a local expert on animal habitats (or any other related topic) to engage in a discussion with them.



## TRUE OR FALSE?

▲ MIDDLE SCHOOL



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.

**TO DO:** Imagine you are on a quiz show, and you must say which of these statements are true and which are false. Hit the button and give your answer! When you are finished, visit the [Jane Goodall Institute's Chimp Facts](#) website to check your answers.

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

### DISCUSS:

- What three facts are most interesting to you? Why?
- Why do you think Dr. Goodall was so interested in chimpanzees that she spent many years studying them?
- Are there any pets or animals you interact with each day who also share some of the same traits as chimpanzees?  
Fun fact: Jane first learned about and fell in love with the unique personality of animals with a neighbor dog named Rusty.



**Teacher Notes:**

This activity addresses skills in STEM and literacy and is paced for one or two periods. A key skill practiced in this activity is the ability to determine what is factual and what is not.

- There are a variety of instructional strategies you can use with this activity, such as the following:
  - Host a game show such as Jeopardy.
  - Assign small groups to answer statements; then have students post their answers.
  - Hold a guided discussion or seminar using the discussion questions and facts.

**Standards:**

- **CCSS.ELA-LITERACY.RI.7.1**—Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

**Resources:**

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

**Extensions:**

- Students respond to one of the questions in writing or in an oral report.
- Students invite an expert to talk to them about chimpanzees.
- Students host a quiz show on these and other facts about Dr. Goodall's work.

**Answers:**

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



## A STORY TO TELL

▲ MIDDLE SCHOOL



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

■ **TO DO:** The National Geographic Society needs you to help tell Jane Goodall's story. Using these facts, write an engaging story that tells how her interests and work have contributed to science and conservation. If you need more information, such as dates or time periods, do your research at the [Jane Goodall Institute](#) and the [National Geographic Society](#).

1. Jane was fascinated with the continent of Africa as a child. She read about the continent in story books.
2. She liked to observe animals, especially those in her family's hen house.
3. Through a friend, she got a job with a famous anthropologist working in Africa, Louis Leakey. Jane saved and worked to afford passage to join Leakey in Tanzania.
4. She arrived at Gombe Stream Chimpanzee Reserve in Tanzania, Africa.
5. Jane was inexperienced and lacked formal training.
6. At first, Jane couldn't locate the chimps. When Jane did find the chimpanzees, they fled every time she tried to get close enough to observe them.
7. It took patience to be accepted by chimpanzees.
8. In time, she got closer to the chimps and was finally accepted.
9. Her research countered much of the past research on the life and habitats of chimpanzees.
10. She learned that chimpanzees use tools, communicate, and interact with each other.
11. During her time in Africa, Jane became in awe of nature, the chimps, and the people who helped her.
12. As her work became known internationally, she became famous.
13. Jane realized that she could only do so much alone, but together, including the help of young people and their good ideas, we can make a big difference. In 1991, she founded [Roots & Shoots](#), a program where young people design solutions to the problems they see around them.
14. Today, she leads an international effort to conserve Gombe and other animal habitats.



**Teacher Notes:**

This activity addresses skills in STEM and literacy and is paced for two periods. The key skill practiced in this activity is the ability to transform information into terms an audience can learn from.

*Instructional Tips: What to Teach*

- how to establish a line of thought or theme (e.g., that Dr. Goodall followed her dream to study chimpanzees, and in doing so, she gave the scientific community and the public new information about them)
- that writers use narrative techniques when writing informational texts, such as in science writing
- the difference between the voice of a story and a report
- the use of techniques to establish the structure of a story with a sequence of events (e.g., headings such as *The Early Years*)
- the use of phrases and transition words to connect and emphasize ideas within the story (e.g., *What a revelation!*)

**Standards:**

- STEM+L: STEM careers
- **National Geography Standard 6:** Describe examples of how perceptions of places and regions are based on direct and indirect experiences.
- **CCSS.ELA-LITERACY.W.7.3**—Write narratives to develop real or imagined experiences or events; produce clear and coherent writing.
- **CCSS.ELA-LITERACY.WHST.6-8.6**—Use technology to produce and publish products.

**Resources:**

- **Jane Goodall Institute**
- **National Geographic Education Resource Library**

**Extensions:**

- Students invite an expert to talk to them about chimpanzees.
- Students write their own story. Prompt: *What inspires you to want to make a difference like Dr. Jane Goodall?*
- Students publish their stories in a class journal.



## 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.



## CREDITS

### Published by The National Geographic Society

Mike Ulica, President and CEO

Jean Case, Chairman

Dr. Vicki Philips, EVP, Chief Education Officer

### Created by

National Geographic Education © 2019

National Geographic Society

### Writer

Eleanor C. Dougherty

### Editor

Jenny Aguilar, National Geographic Society

Jeanna Sullivan, National Geographic Society

### Graphic Designer

Keven Ramirez, Divertido Design

### Image Credits

**Cover:** Hugo van Lawick. **Page One:** Michael Nichols. **Page Two:** Michael Nichols. **Page Four:** Hugo van Lawick. **Page Six:** Hugo van Lawick. **Page Eight:** Michael Nichols. **Page Ten:** Hugo van Lawick. **Page 12:** Hugo van Lawick. **Page 14:** Hugo van Lawick. **Page 16:** Hugo van Lawick. **Page 18:** Michael Nichols. **Page 20:** Hugo van Lawick. **Page 22:** Hugo van Lawick. **Page 24:** Hugo van Lawick.

### Special Thanks

