



ZOOBIRANGER RECRUIT PROGRAM

THE PANGOLIN

Earn your Pangolin Badge!



WELCOME, ZOOBIRANGER RECRUIT!

With this workbook in your backpack, you're on your way to becoming a Junior ZoobiRanger!

Learn about the Pangolin and the Forest Habitat in which it lives.



To earn your badge, do the following:

- Watch the Zoobitat Episode:**
 - Look for the one entitled "The Pangolin."
- Complete this Workbook:**
 - Read the information and do your best to complete the exercises.
- Check your Work:**
 - Show an adult the answers you completed.
- Earn your Badge:**
 - At the end of the course, you'll find a Badge you can print out!

LET'S BEGIN!

LEARN THE ZOOBIRANGER SALUTE!

As you've seen in the episode, Junior ZoobiRangers Jolly and Jordy do the ZoobiRanger Salute before going on an adventure. As a ZoobiRanger Recruit, you can learn it, too.

SALUTE MEANING:

With the salute, we are honoring our commitment as ZoobiRangers to:

- be protectors of the planet and the creatures upon it.
- learn what we can about wildlife conservation.
- work together as a team to make the world a healthy home for all.

HOW TO DO THE SALUTE:

First, learn the phrase that lets us all know you're ready for an adventure.

Can you say it out loud?

"ZoobiRangers at the Ready!"

Now, learn the hand actions! While standing tall, with your shoulders back, raise your right hand to your forehead, with a flat palm facing downward. Say the word, "ZoobiRangers," then salute your hand forward and outward, saying "at the ready!"

Then fold your arms, so they cross in front of you. Then lean to the side. Great work! Now try it all in one motion while saying the phrase aloud.

"ZoobiRangers at the Ready!"

EXCELLENT! YOU'RE READY FOR ADVENTURE!



RIDE YOUR ZOObi-ATV TO THE FOREST HABITAT!



The Pangolin lives in the Forest Habitat. Before we learn more about our scaly friend, let's take a trip to the Habitat in which the Pangolin lives.

Forest Habitats can come in many forms, but the one thing they all have in common is trees — and lots of them.

There are two main tree categories to consider:

Coniferous Trees

- Coniferous Trees are also known as “evergreens,” because most of them keep their green foliage all year round. Coniferous trees produce cones, such as pinecones. Some examples of coniferous trees include the Pine, the Fir, the Cedar and the Redwood.

Deciduous Trees

- Deciduous Trees shed their leaves in the autumn or fall season. In fact, the word, “Deciduous” means “falling off at maturity.” In this sense, they are the opposites of “evergreens.” Examples of Deciduous Trees include the Maple, Oak, Aspen, Birch and Elm.

Forest Habitats can differ greatly depending on their climate and the types of trees that fill them. Below are a range of forests types that can form a Forest Habitat:

Tropical Forests

- Tropical Forests are also known as Rainforests, because of the high level of rain that occurs within them.
- Famous Rainforests include the Amazon Rainforest in South America, the Congo Rainforest in Africa and the Daintree Rainforest in Australia.

Boreal Forests

- Boreal Forests are found in parts of the world where temperatures drop below the freezing point for six-to-eight months of the year. This sharp drop in temperature causes these forests to consist mostly of seasonally robust coniferous trees.
- Boreal Forests are usually found in the North of the globe, in places like Canada, Russia and Alaska.

Temperate Forests

- Temperate Forests are found in the middle of the spectrum between Tropical and Boreal. They are found in regions with milder temperature ranges. In fact, the word “Temperate” means “moderate” or “mild.”
- These forests are often humid, with high levels of precipitation. Temperate Forests primarily consist of Deciduous Trees.



Use the information above to answer the below questions.

1. What are the two main tree categories?

- A. Condiments and Deliveries
- B. Coniferous and Deciduous
- C. Leafy Trees and Leafless Trees
- D. Carnivores and Herbivores
- E. Candy Trees and Donut Trees

2. Which of the following are common in relation to Coniferous Trees? Circle all that apply.

- A. Cones
- B. Evergreen color
- C. No leaves
- D. They shed their leaves in autumn/fall
- E. They exist only in cartoons

3. What is another word for Tropical Forest?

- A. Watery Trees
- B. Snowforest
- C. Rainforest
- D. Sunny Forest
- E. Pineapple Trees

4. In Boreal Forests, temperatures generally drop below the freezing point for how long?

- A. One-to-two weeks
- B. Three hundred seconds
- C. Two-to-three months
- D. Never
- E. Six-to-eight months

5. Use the above info. to fill in the blanks below.

- The temperatures within _____ forests tend to be in the middle ranges, compared to the Tropical and Boreal forests.
- One of the most famous Rainforests in Australia is call the _____ Rainforest.
- The literal meaning of _____ is “falling off at maturity.”
- The Pine, Fir, Cedar and Redwood are examples of _____ trees.



CURL UP CLOSE WITH THE PANGOLIN!



Meet the Pangolin, a mammal from Africa and Asia!

Pangolins are sometimes referred to as scaly anteaters, because their bodies are covered in scales and they survive by eating ants and other small bugs.

They have no teeth! To eat, Pangolins use their long, sticky tongues to capture various insects, primarily ants and termites.

The Pangolin's scaly body acts as a defence system against predators. If a Pangolin is scared, they will roll up in a ball, allowing their scales to form a hard surface to fend off danger.

The Pangolin varies in size from approximately 3.5 lbs. to approximately 7.3 lbs. Their size depends on their particular species, age and access to food.



There are eight species of Pangolin:

- ✓ **The Chines Pangolin**
 - ✓ Found in China. Ground-dwelling.
- ✓ **The Indian Pangolin**
 - ✓ Found in India. Ground-dwelling.
- ✓ **The Suda Pangolin**
 - ✓ Found in South-East Asia. Ground-dwelling.
- ✓ **The Philippine Pangolin**
 - ✓ Found in the Philippines. Ground-dwelling.
- ✓ **The White-bellied Pangolin**
 - ✓ Found in Western Africa. Tree-dwelling.
- ✓ **The Black-bellied Pangolin**
 - ✓ Found in Western Africa. Tree-dwelling.
- ✓ **The Giant Pangolin**
 - ✓ Found in Western Africa. Ground-dwelling.
- ✓ **The Ground Pangolin**
 - ✓ Found in Southern and Eastern Africa.

Sadly, each of the Pangolin species is under threat from poaching and other human-caused harms, such as deforestation. The International Union for Conservation of Nature (IUCN) has defined the Pangolin's threat levels, ranging from Vulnerable to Critically Endangered.

For these reasons, we need to do our best to ensure the safety of those Pangolins who are still with us today.



Below are some useful facts about the Pangolin:

Pangolins are mammals

- This means that Pangolins are warm-blooded vertebrates animals that feed their young through the secretion of milk from their mammarys.

The word Pangolin comes from the Malay word, “Penggulung”

- “Penggulung” literally means “roller,” referring to the way that Pangolins roll up into a ball when threatened.

Pangolins are nocturnal

- Pangolins sleep during the daylight hours and are awake at night.

Pangolin bodies are covered in scales

- Their number of scales can vary, depending on size, but they have roughly 1000 scales on their bodies.
- Pangolin scales are made from Keratin, which is the same protein our bodies use to create our fingernails and hair.



Use the information above to answer the below questions.

6. How many species of Pangolin exist?

- A. 1000
- B. 1
- C. 8
- D. 5
- E. Too many to count

7. Why do Pangolins roll up into a ball?

- A. To roll downhill
- B. To play croquet
- C. To eat various small insects
- D. As a defence mechanism against threats
- E. Because it's fun

8. When do Pangolins sleep?

- A. At night
- B. When the sun goes down
- C. During the day
- D. They don't sleep
- E. Always

9. The word "Pangolin" comes from a Malay word, which means...?

- A. Scaly ones
- B. Ant-lover
- C. Cute fella
- D. Long tongue
- E. Roller

10. Color in the below image of the Pangolins. Can you make it match the sample picture from the episode?



WHAT EPISODE ZOOBIFACTS DO YOU REMEMBER?

11. In order to get to the Forest Habitat, what Habitat did Jolly, Jordy and Lox first cross?

- A. The Freshwater Habitat
- B. The Grasslands Habitat
- C. No Habitat
- D. All the Habitats
- E. The Marine Habitat

12. What tool did Jordy and Jolly use in order to see within the dark cave?

- A. Sunglasses
- B. Zoobi-Talkies
- C. A Multi-colored Flashlight
- D. Swimming Goggles
- E. A Lantern

13. Pangolins eat insects. For this reason, Field ZoobiRanger Leila refers to them as which of the following?

- A. Hungry animals
- B. Insectivores
- C. Carnivores
- D. Herbivores
- E. Picky eaters

14. Pangolin scales are made from Keratin, which is the same protein that makes up which of the following? Circle all that apply.

- A. Hair
- B. Shoes
- C. Socks
- D. Nails
- E. Tongues

HOW TO HELP THE PANGOLIN!

There are many ways to help the Pangolin and the Habitat in which they live.

Firstly, you can do your part to keep our Forest Habitats clean and free from harm. We can do this by reducing our waste in the environment.

Reduce, Reuse and Recycle!

In addition, we can prevent deforestation by being mindful in making sustainable choices with our use of wood-based products. For instance, instead of paper napkins and paper towel, are washable cloth napkins available? Instead of always printing on fresh paper, can the backside of a page be used? Or can an item be read online.

With this tips in mind, we can reduce our consumption of wood products, allowing forests to stay in tact as a habitat for our animal friends.



CONSERVATION ORGANIZATIONS!

One particular organization is working hard to ensure the safety of the Pangolin:

The Save Pangolins Organization: www.savepangolins.org

From the above website, you can contribute financially to Pangolin conservation efforts. You can also learn how to spread the word about the need for Pangolin protection.

You can also help by volunteering with or contributing to other Wildlife Conservation Organizations. Here are some websites to check out!

<https://www.nature.org/en-us/>

<https://www.worldwildlife.org>

<https://www.nrdc.org>

<https://www.sierraclub.org/>

<https://www.wcs.org/>

<https://oceana.org/>

Another great way to help is to look in your local area for volunteer opportunities. Ask the adult in your life how you can spend some time with a local zoo, animal sanctuary, wildlife club, or environmental group. There's always a way to lend a helping hand.

And most importantly, you can help by doing your part to be a protector of wildlife and our planet. Continue learning about the amazing creatures of Earth and the unique environments in which they live.

You're on your way to becoming a Junior ZoobiRanger. We hope to see you again soon!

**You're on your way to becoming a
Junior ZoobiRanger.**

WE HOPE TO SEE YOU AGAIN SOON!



CONGRATULATIONS!!

By completing this workbook, you have earned your Pangolin Badge!

Fill out the below info. and enjoy your badge!

Congratulations, ZoobiRanger Recruit _____
(write your name here)

As of this date _____,
(write today's date)

you have earned an official ZoobiRanger Pangolin Badge.



Cut out the badge and put it on display!

Earn your next badge with a new workbook at www.zoobitat.com

ANSWER KEY:

- 1. B**
- 2. A, B**
- 3. C**
- 4. E**
- 5. Temperate, Daintree, Deciduous, Coniferous**
- 6. C**
- 7. D**
- 8. C**
- 9. E**
- 10. N/A**
- 11. B**
- 12. C**
- 13. B**
- 14. A, D**