

PATIENT NUMBER: 850

DAYS IN CARE: 1 (TRANSFERRED TO PARTNER CENTER)

REASON FOR INTAKE: ORPHANED

RESCUE

Educator Guide: Grades 6-8

6-8 WILD RESCUE CURRICULUM: IN THE GRAND ECOSYSTEM

OVERVIEW

Students discover more about a number of different animal species featured in the *Wild Rescue* film, focusing on the unique role, or niche, of each species in its ecosystem. Students then analyze facts about human impact on the natural world to inform their discussion of what a human's role in his/her ecosystem is, or what it ought to be. Finally, they exercise creativity and critical thinking skills in an activity where they are tasked with solving an environmental issue or meeting an environmental need based on a pre-assigned human identity (vocation, hobby, etc.).

KEY CONCEPTS

- Every animal, including humans, has a special role within their ecosystems. This role, called a "niche," serves to keep the entire ecosystem happy and healthy.
- Humans often have extremely negative impacts on the environment, and we are currently faced with many environmental issues as a result. However, humans can - and do! - also have very positive impacts as well. It is our responsibility to decide what our niche will be in the places that we live.
- Figuring out how to best help the planet as an individual or student can be overwhelming. One of the best ways to figure out how you can best help is to consider the many different parts of your identity. You might consider things like your hobbies, what you are good at, or even the places that you like to visit most often.

VOCABULARY

Ecosystem – a community of living things and features of the landscape that interact in a specific location

Niche – a plant or animal's role, or specific job, within an ecosystem.

MATERIALS

- Printed Whose Niche is Whose? Quizzes (one per student pair)
- Printed A Human's Niche in the World fact sheets (one per group of 3-4 students)
- Printed and cut Who Am I, and How Can I Help? identity cards (one card per student)
- Printed and cut Who Am I, and How Can I Help? environmental problem cards (45 cards total)

- Printed Who Am I, and How Can I Help? poster templates
- Colorful construction paper (optional)

OR

Tablets or laptops (optional, one per student)

- · Colored pencils
- Markers

SETUP

- Print the Whose Niche is Whose? quizzes included with this curriculum (page 7), enough for one per student pair.
- Designate or reserve a large, open space (such as a playground or field) for the A Human's Niche in the World-True or False? game. There should be room enough for the class to safely run from one end of the space, or a portion of the space, to the other without crowding.
- Print the A Human's Niche in the World fact sheets included with this curriculum (page 8), enough for one per group of 3-4 students. Do not provide students with this fact sheet until after the "True or False?" game.
- Print the Who Am I, and How Can I Help? identity card pages so that there are enough for one card per student. As there are only 15 identity cards, you may need to print the document twice; it is okay that there will be duplicate identities in most classes. Cut out each identity card and organize the deck in a neat stack.
- Print the Who Am I, and How Can I Help? environmental problem card so that all 45 cards are printed. Cut out each environmental problem card and arrange all 45 cards face-up on a large table, the floor, or other flat surface.
- Print the *Who Am I, and How Can I Help?* poster templates, one template per student.
- Provide ample art supplies for poster creation, such as colored pencils, markers, sharpies, and construction paper.

OR

Provide student tablets or laptops for slideshow presentation creation.

 If possible, allot 5-15 minutes during which students can spend time outside on school grounds to enjoy nature before your review.

PROCEDURE

I. Introduction - Little Niche, Big Ecosystem

- a) Tell the class that today, their lesson will begin with them thinking about different types of jobs. Tell them that you will be asking them a few questions about jobs in their own life and families, and that you would like them to think about these questions quietly, in their heads. Allowing for a quiet pause between each question, ask the class the following:
 - i) When you were in Kindergarten, what kind of job did you want to have when you grew up?
 - ii) What kind of job do you want to have, now?
 - iii) What kinds of jobs do your family members have? Think of as many as you can.
 - iv) What jobs do you have already, within your home? Do you take out the garbage? Do your own laundry? Cook? Sweep the floors? Grab the mail? Make your bed?
 - v) What kinds of jobs do you have at school? You probably clean up your trash at lunch, and you probably have homework and in-class assignments as well.
- b) Call on a few students to share what job they wanted to have when they were in kindergarten, and what job they would like to have now. For each answer, name the value that their chosen job(s) have for society or for the environment.
 - i) For example, "Yes a ballerina is a wonderful and important job because dance and the arts inspire us and allow us to express our feelings and culture!" or "Awesome - park rangers help to keep the plants, animals, and people in our National Parks safe!"
- c) "Why are jobs so important? Why do we have jobs? The purpose of a job is really just to help the planet or society or our families with a need. First, you can think about your home. Once enough clothes are dirty, you begin to have a need for clean clothing. You or a loved one will take on the job of washing those clothes in order to meet your need. Now, think about farmers - people have a need for fresh fruit and veggies to keep our bodies fed and healthy. Farmers take on their job to meet this need and provide fresh produce for a healthy society. Now, think about trees all kinds of trees, because there are tens of thousands of species of trees worldwide - and their jobs. While trees don't "choose" to take on a job like we do, all plants and animals have jobs that are extremely important for the earth. Trees, for example, provided habitat for all kinds of animals such as the songbirds and bats that you just saw in the "Wild Rescue" movie. They also help to clean the air by absorbing carbon dioxide and releasing oxygen. They also provide shade,

- which can help keep our planet cooler in areas that need a break from the heat of the sun. Every plant and animal in the world has an important job that affects the community, or ecosystem, around them. An ecosystem is a community of living things and features of the landscape that interact in a specific location. Each member of the ecosystem has its own job, and everything is interconnected."
- d) Tell the class that when a plant or animal has a job within an ecosystem, that job is called the plant or animal's "niche."
- e) Tell the class that you will now practice a quick quiznot for credit, just for fun! - to explore some of the special niches that animals can have, and how these jobs help not only the other plants and animals of their ecosystems, but people too!
- f) Split students into pairs, and give one "Whose Niche is Whose" quiz to each student. Instruct the students to write their answers in pen, doing their best to match each animal to its niche using the key provided.
- i) As the students work on their quizzes together, remind them that this is just for fun, and that they should just be using their best guesses. Some of these animals may be unfamiliar to them, and that's okay! The main point of this challenge is actually to help learn new animal facts, and think about some of the important and unexpected jobs that animals take on.
- g) Once all students have completed their quizzes, read the correct answers from the key below:
 - i) I play dead... and eat roadkill, too! I'm the marsupial on the clean-up crew! Who am I?
 - ANSWER: OPOSSUM
 - ii) You may hear me calling in the night, and I help eat scorpions and mice. Who am I?
 - ANSWER: BARN OWL
 - iii) I am both predator and prey, and I eat many types of bugs away! Who am I?
 - ANSWER: SKUNK
 - iv) Some don't know this about me, but I help pollinate and spread plant seeds! Who am I?
 - ANSWER: BAT
 - v) Leftovers often keep me fed, I clean up trash and sometimes the dead! Who am I?
 - ANSWER: RACCOON
 - vi) Everyone knows that I pollinate flowers, bright colors are one of my many powers! Who am I?
 - ANSWER: HUMMINGBIRD

vii) I'm soft and shy, and it's my oath to help against plant overgrowth. Who am I?

ANSWER: BUNNY

viii) I hide my seeds down in the ground, and sometimes they grow if they're not found. Who am I?

ANSWER: SQUIRREL

- h) Congratulate the students on their great work! Now that you have read all of the correct answers, briefly review how each animal's niche is important to the other creatures in its ecosystem, and humans as well.
 - i) For example, "Wow raccoons have an extremely important job. What would the world be like if we didn't have their help with cleaning up? Without raccoons, there would definitely be more dead and rotting materials, trash, and illness in the world!"
- Restate that every animal has an extremely important job or role in its community, called a niche, and that ecosystems are their healthiest when there are lots of different kinds of animals doing their special and important jobs.
- j) Ask the students if they had ever heard the word "niche" before today.
 - i) Tell the class that they may have heard this word used to describe a very specific or specialized area of interest or skill, and give an example. These two different uses of the word "niche" are quite closely related, because every species has a specific and specialized role in their ecosystem that meets a special need not just anyone can do that job! This is part of why each and every animal species is important, and must be protected.

II. A Human's Niche in the World - True or False?

- a) Pausing for a few minutes between each question, ask the students to ponder the following questions quietly, in their heads What is a human's job, or niche, in the ecosystems that we live in? Is there a difference between what our role in nature has often been over time, and what it should be in the future?
 - Instruct students to discuss these questions amongst themselves and to be ready to share their answers with the class.
 - i) Call on a few students to share their answers to each question.
- b) Move students to the area that you have designated for the "A Human's Niche in the World True or False?" game. Tell the students how the game works:
 - "In this game, I will be reading a series of statements about human impacts on the natural world. Some of these statements will be true, and some of these statements will be false. After each statement,

I will give you about 15 seconds to quietly decide for yourself whether you think the statement is true or false. On the count of three, you will run to the left where you see the red cone if you think it is false, and to the right where you see the green cone if you think it is true. After everyone has made their choice, I will let you know whether or not you were correct."

- ii) Remind students to be careful of others around them, and to give others lots of space to run!
- c) Read the following statements, remembering to give students 10-15 seconds to process each statement before counting to three and allowing them to make their decisions:
 - i) Millions of tons of plastic enter the world's oceans each year.
 - ANSWER: TRUE
- ii) Scientists estimate that up to 50% of the world's species will be extinct by the end of this century, in the year 2100.
 - ANSWER: TRUE
- iii) Between 1995 and 2017, up to 25% (or one quarter) of the coral that made up the Great Barrier Reef died.
 - ANSWER: FALSE; It's even more! Between 1995 and 2017, about 50% (or half) of the coral that made up the Great Barrier Reef died.
- iv) In 2023, the United States Fish and Wildlife Service declared 12 species extinct.
 - ANSWER: FALSE; It's even more! In 2023, the U.S. Fish & Wildlife Service declared 21 species extinct.
- v) The most common cause of pelican injuries in Santa Barbara, California is fishing line and hooks that have not been properly thrown-away.
 - ANSWER: TRUE
- vi) Very few humans are deciding to eat less meat and more fruits and veggies, which can help with issues such as the concentration of carbon dioxide (CO2) in our atmosphere, and overfishing!
 - ANSWER: FALSE. Many humans are deciding to eat less meat, and some of your own favorite foods may actually be vegetarian or vegan!
- vii) Many humans have dedicated their lives to inventing and testing out new, sustainable products that will help with cleaner air and less trash on our planet.
 - ANSWER: TRUE
- viii) In the year 2000, there were less than 100 Channel Islands Foxes on Santa Cruz Island off the Coast of California. Due to human-caused disruption, there are now less than 50 of these foxes left.

- ANSWER: FALSE; The story of the Channel Islands
 Fox is exciting and inspiring! While the decrease
 in number of Channel Islands Foxes was
 dangerously low in the early 2000s due to the
 consequences of human actions, successful
 protection and restoration programs also led by
 humans allowed this species to recover and
 grow! There are now over 2,000 Channel Islands
 Foxes on Santa Cruz Island.
- ix) Seaweed grows extremely quickly compared to crops on land, and is also highly nutritious. Some humans are making seaweed farming more popular than ever, in the name of sustainability!
 - ANSWER: TRUE
- x) There are countless organizations, businesses, artists, activists, scientists, politicians, and nature-lovers in the world that are always looking for new ways to better take care of our earth. You can be a part of this effort, even now!
 - ANSWER: TRUE
- d) Bring the students back into the classroom and/or ask them to take a seat. Ask them to nod their heads if they had fun playing that game.

e) "Yes, that game was super fun! But in many ways, it may

- have also been surprising... or even a little disappointing. During that game, we learned a lot of new facts about the role of humans in nature and within the ecosystems where we live. Many of those facts were sad, and scary - plastics in the oceans, species going extinct, and corals dying? That's terrible news, and it's terrible that humans are the cause of so many of these eco-emergencies. Luckily, we also learned some new facts about a few of the positive impacts that humans have had on the natural world, as well. There are so many humans, right now, who are dedicating their lives to finding more sustainable options and reducing the amount of trash that we create, protecting endangered and threatened species, and discovering better ways to take care of the planet and its creatures. A human's role in nature, or our niche in our ecosystems, is up to us to decide. We can have negative impacts that hurt nature & its creatures, or positive impacts that help and restore.
 - Remember, it doesn't matter if we live in a big city, or a suburb, or a small town in the countryside, we are all living in an ecosystem, right now, and have a responsibility to our wild neighbors!
- f) Break students into groups of 3-4, and hand each group an "A Human's Niche in the World" fact sheet and a blank sheet of lined paper. Ask students to discuss the facts on the sheet, and work together to choose the one that they think is the most inspiring. Instruct students to either choose a fact about the

- negative impacts of humans on nature and what they are inspired to see change, or to choose a fact about the positive impacts of humans on nature and why it gives them hope. Tell the class to write their group's answers on the lined sheet of paper, and to be ready to share their answers. After about 5 minutes, ask each student group to share their answers.
- g) Ask students again What is a human's role in his/ her ecosystem? What should it be? Instruct students to discuss these questions in their groups, and call on each student group to share their answers.

III. Who Am I, and How Can I Help?

- a) Remind the class that in the "Wild Rescue" movie and in the game they just played, they learned that humans can have an incredibly important niche in our ecosystems - to provide hope, healing, and recovery to our wild neighbors.
- b) Tell the class that you will now be doing a final exercise to practice more creativity and positive thinking around what a human's niche should be in his or her ecosystem. Tell the students how the activity works:
 - i) "For this activity, you will be given a human identity card with some information about your hobbies, resources, or interests. After you read your identity cards, I will call a few students at a time to come to this table where I have laid out a grid of environmental problem cards that describe an issue in nature that needs solving, or a job in nature that needs to be done. You will choose one environmental problem card that you think matches well with your identity. You can think of this as choosing a niche based on your assigned "character" in your community!
 - Once you have chosen your environmental problem card, you will take your card back to your seat and design a poster based on your chosen match.
- c) Call a few students at a time to receive their random identity cards, and then to choose an environmental problem card. Once all students are back at their desks with their two cards, pass out the "Who Am I, and How Can I Help?" poster templates. Instruct students to either create their posters directly on the provided templates, or to use other mediums such as a virtual slideshow or colorful construction paper to present their information.
- Encourage students to get creative and present their information in a fun and attractive way, while also keeping the information clear and easy to read. If possible, provide students with a variety of art supplies such as colored pencils, markers, sharpies, and colorful construction paper.

- d) Once students have completed their posters or slideshow presentations, instruct them to place their environmental problem cards back where they found them.
- e) Ask each student to present their poster or slideshow to the class. This can be done all at once if desired, or with just a few students per day over the course of one week.
- f) Ask the class to consider the following questions quietly, in their heads:
 - i) As we each try to find our own niche in the places that we live, why is it important to consider our identities?
 - ii) Why would it be helpful to think about things like our hobbies as we figure out ways that we can help the natural world?
- g) "Sometimes, thinking about all of the environmental problems in the world and all of the work that needs to be done can feel overwhelming. Sometimes, it feels like there aren't any real ways for normal people like us to help! That is why it is good for us to remember who we are, before we try to find our niche in the places we live. The things that we like to do, the things that we are good at, the places we already visit or like to be, and many other parts of who we are can often show us the best ways that each one of us can help the planet. Just like the special features of animals help them to fill a job in their ecosystems such as a hummingbird who pollinates or a raccoon who eats rotten and dead materials, our special features can help us figure out the best ways for each of us to take better care of the natural world."

IV.Wrap-Up: How to be a Wild Rescuer

- a) Ask the students to take a seat, and congratulate them once more on their wonderful work.
- b) Review the definitions of "ecosystem" and "niche" with the class. Call on a few students to name an animal and its niche (these can be from the Wild Rescue film, or otherwise).
- c) Tell the students that today, they learned that every animal has a unique job, or niche, that contributes to the health and happiness of others in its ecosystem. Humans also have a special role in the places that we live in - we can provide hope, healing, and recovery to our wild neighbors when we choose to take good care of the natural world.
- d) Remind the students that like animals, each person has their own special way that they can help their ecosystems. The best way to find out how they should help is to look at who they are what they are interested in, what they are good at, the outdoor spaces they like to visit, and more.

e) Before students clean up for the day, ask them to each take one environmental problem card home that corresponds with their actual identity in real-life. Encourage them to put this card in their bedroom, on their refrigerator, or to use it as a bookmark so that it can serve as a reminder of how they can better take care of the ecosystem and the creatures living around them.



WONDER IN THE WILD

If possible, move the class to an outdoor area for just 5-15 minutes, inviting them to notice and enjoy nature a little extra after their time watching "Wild Rescue" and doing so well with their learning activities. Encourage them to touch the dirt, grass, and leaves; look under rocks; listen for birds or the wind; smell the plants around them; and try to spot any birds or insects.

REVIEW & DISCUSSION

- What is an ecosystem? What is a niche? Do only animals have a unique role in the places they live? Are only animals part of an ecosystem?
- What is a human's niche? What kind of impact do humans have on the natural world and its creatures? What kind of impact should humans have?
- Why is it helpful to consider our identities when trying to figure out how we can better take care of the planet?
- What is one thing you saw in the *Wild Rescue* movie that surprised or amazed you?
- What is one way that we can make our backyards, parks, and schools safer and cleaner for our animal neighbors?

Name:

Whose Niche is Whose

WORD BANK

Bat Opossum
Raccoon Bunny
Barn Owl Skunk
Hummingbird Squirrel

- 1. I play dead... and eat roadkill, too! I'm the marsupial on the clean-up crew! Who am I?
- 2. You may hear me calling in the night, and I help eat scorpions and mice. Who am I?
- 3. I am both predator and prey, and I eat many types of bugs away! Who am I?
- 4. Some don't know this about me, but I help pollinate and spread plant seeds! Who am I?
- 5. Leftovers often keep me fed, I clean up trash and sometimes the dead! Who am I?
- 6. Everyone knows that I pollinate flowers, bright colors are one of my many powers! Who am I?
- 7. I'm soft and shy, and it's my oath to help against plant overgrowth. Who am I?
- 8. I hide my seeds down in the ground, and sometimes they grow if they're not found. Who am I?

A Human's Niche in The World Fact Sheet

- Millions of tons of plastics enter the world's oceans each year.
- Scientists estimate that up to 50% of the world's species will be extinct by the end of this century, in the year 2100.
- Between 1995 and 2017, about 50% of the coral that made up the Great Barrier Reed died.
- In 2023, the United States Fish and Wildlife Service declared 21 species extinct.
- The most common cause of pelican injuries in Santa Barbara, California is fishing line and hooks that have not been properly thrown-away.
- Many humans are deciding to eat less meat and more veggies, which can help with issues such as the concentration of carbon dioxide (CP2) in our atmosphere, and overfishing. Some of your own favorite foods may already be vegetarian or vegan!
- Many humans have dedicated their lives to inventing and testing out new, sustainable products that will help with cleaner air and less trash on our planet.
- In the year 2000, there were less than 100 Channel Islands Foxes on Santa Cruz off the Coast of California. While the decrease in number of Channel Islands Foxes was dangerously low due to the consequences of human actions, successful protection and restoration programs also led by humans allowed this species to recover and grow! There are now over 2,000 Channel Islands Foxes on Santa Cruz Island. The story of the Channel Islands Fox is one of success and healing!
- Seaweed grows extremely quickly compared to crops on land, and is also highly nutritious. Some humans are making seaweed farming more popular than ever, in the name of sustainability!
- There are countless organizations, businesses, artists, activists, scientists, politicians, and nature-lovers in the world that are always looking for new ways to better take care of the earth. You can be a part of this effort, even now!

PosterTemplate

My Identity:

Environmental Problem:

How I Can Help:

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Why 1'm the Right Person for the Job:

Others Who Can Help:

Identity Cards

KAYAKER

(spends a lot of time in oceans and/or lakes)

TEACHER

(spends a lot of time around kids & college students who are always learning, and planning for future careers)

ELEMENTARY-SCHOOL CHILD

(spends time at parks and taking neighborhood walks)

DOG OWNER

(spends time at parks and taking neighborhood walks)

SURFER

(spends a lot of time near and in the ocean)

HOBBY GARDENER

(great at identifying plants, spends time both planting and pulling weeds)

HIGH-SCHOOL STUDENT

(lives in a large city with many friends, things to do, and places to eat nearby)

FAMILY CHEF

(family member who does most of the cooking at home)

COLLEGE STUDENT

(ability to make his/her own choices in many areas of life, lots of opportunities for growing knowledge about the world)

Identity Cards

HIGH SCHOOL STUDENT

(has some free time after school and on weekends, may or may not need community service hours or a summer internship)

PHOTOGRAPHER

(has an old-school camera, a smartphone, and a small following on social media)

ARTIST

(has a home studio, a smartphone, and a small following on social media)

JUNIOR-HIGH STUDENT

(has way too much stuff; room gets a little messy from time to time, and has a few clothing items and other things that they almost never wear or use)

BIKER-RIDER

(frequently rides bike on local trails and bike paths for health benefits and exercise)

JUNIOR-HIGH STUDENT

(takes out the trash for the family whenever the garbage can is full, grabs the mail, and cleans the bathroom)

Environmental Problems

CONSUMERISM

(Constant demand for new products, leading to the overuse of resources. Oftentimes, thrift shops, garage sales, swap mets, and online marketplaces offer great alternatives to buying "new!")

UNNECESSARY TRASH

(Items such as clothing, furniture, and household goods being thrown away when they can be recycled and given new life.)

POPULARITY OF SINGLE-USE PLASTICS

(Items such as grocery bags, cups, water bottles, straws, and food utensils.)

FOOD WASTE

(A huge amount of produce is discarded because it has gone bad before being eaten).

TRASH & LITTER

(Litter harms landscapes and wildlife, and often doesn't biodegrade. Litter must be picked up and disposed of properly).

INVASIVE PLANT SPECIES

(Plant species that are non-native and harmful to the ecosystem may be common in some areas, harming the beneficial native plant life and pollinators)

TRANSPORTATION

(The emissions from vehicles are hurting the environment and contributing to a rapidly-warming climate).

PACKAGED FRUIT & VEGGIES

(Many fruits and veggies found at the grocery store are packaged in plastic that will never biodegrade, whereas fresh fruit and veggies at farmer's markets are often unpackaged).

LACK OF POLICIES FOR THE PLANET

(Many voters do not consider the environment and wildlife to be one of their top-most important issues when voting on new policies and people in government).

Environmental Problems

LACK OF EDUCATION & INFORMATION

(Many people that would actually really care about environmental issues simply do not know enough about them in order to help or get involved with solutions!)

NEED FOR HELPING HANDS

(Many of the most important organizations for helping wildlife rely heavily on volunteer help ans support. More helping hands are always needed!)

UNSUSTAINABLE FOODS

(Some foods are especially harmful to the environment, and are considered "unsustainable foods." Many of these foods are popular but there are always new recipes to try and tons of natural alternatives.)

NEEDS FOR COMPOSTING

(A huge amount of organic food waste, such as produce scraps, is simply thrown away when it still has the potential to be used for enriching soil and helping new plants to grow}.

DEMAND FOR BETTER BUYERS

(If single-use plastics and noneco-friendly items are popular and in high-demand, then large companies will likely continue to make them!)

NEED FOR CLEANER COASTS

(Lots of trash & litter is often found washed up on beaches and coasts, specifically. If trash is not removed, it poses a serious threat to landscapes and wildlife).

NEED FOR CLEANER SEAS

(Lots of trash & litter is often found floating in the ocean specifically. If trash is not removed, it poses a serious threat to landscapes and wildlife).

NEED FOR MORE CONSERVATIONISTS

(The world is in need of more conservationists! Many people - especially young people - are interested in wildlife and conservation, and have no idea how many career paths are available!)

NEED FOR CREATIVE REPRESENTATION

(There is always a need for new and creative ways to inspire live and concern for landscapes and wildlife. This can be achieved many ways, such as film making, graphic,design, storytelling & art... just to name a few!).

NEED FOR HEALTHY NATIVE PLANT POPULATIONS

(The world is in need of healthy native plant populations! Native plants, by nature, will typically grown wonderfully in the places that they came from, ans should be planted all around your community even in your own backyard!).

NEED FOR CITIZEN SCIENCE

(There are opportunities for regular people of all ages to help with nature research through citizen science apps, completing tasks such as tracking native bird sightings.

These can often be done easily.

Just on short walks around your neighborhood!)