



Apache-Sitgreaves National Forests

Junior Forest Ranger

Join Smokey Bear and Become a Junior Forest Ranger!



You can become a Junior Forest Ranger if you:

- Are between 5-16 years old
- Complete five activities if you are between 5-9 years of age
- Complete seven activities if you are between 10-16 years of age

Do all the activities and become a Master Junior Forest Ranger!

Bring this completed Junior Forest Ranger Activity Book back to a ranger station on the forest to be checked and take your pledge to achieve your Certificate and Junior Forest Ranger badge!



Activities for
ages 5-9 are
labeled with deer
tracks.



Activities for
ages 10-16 are
labeled with wolf
tracks.



Activities for
all ages are
labeled with
bear tracks.

Name:

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Conservation Takes Teamwork!

Being a Junior Forest Ranger means being a good steward. A steward is someone who helps take care of something that belongs to everyone, like national forests. Our forests are special places we can use, but they also conserve all of nature's things (trees, plants, animals, rocks, forests and landscapes) and our history.

With so many people visiting, it takes more than just rangers to conserve our forests – it takes EVERYONE who visits. Things like being careful with fire, not feeding wildlife, not leaving trash and leaving no trace of our visit make a difference.

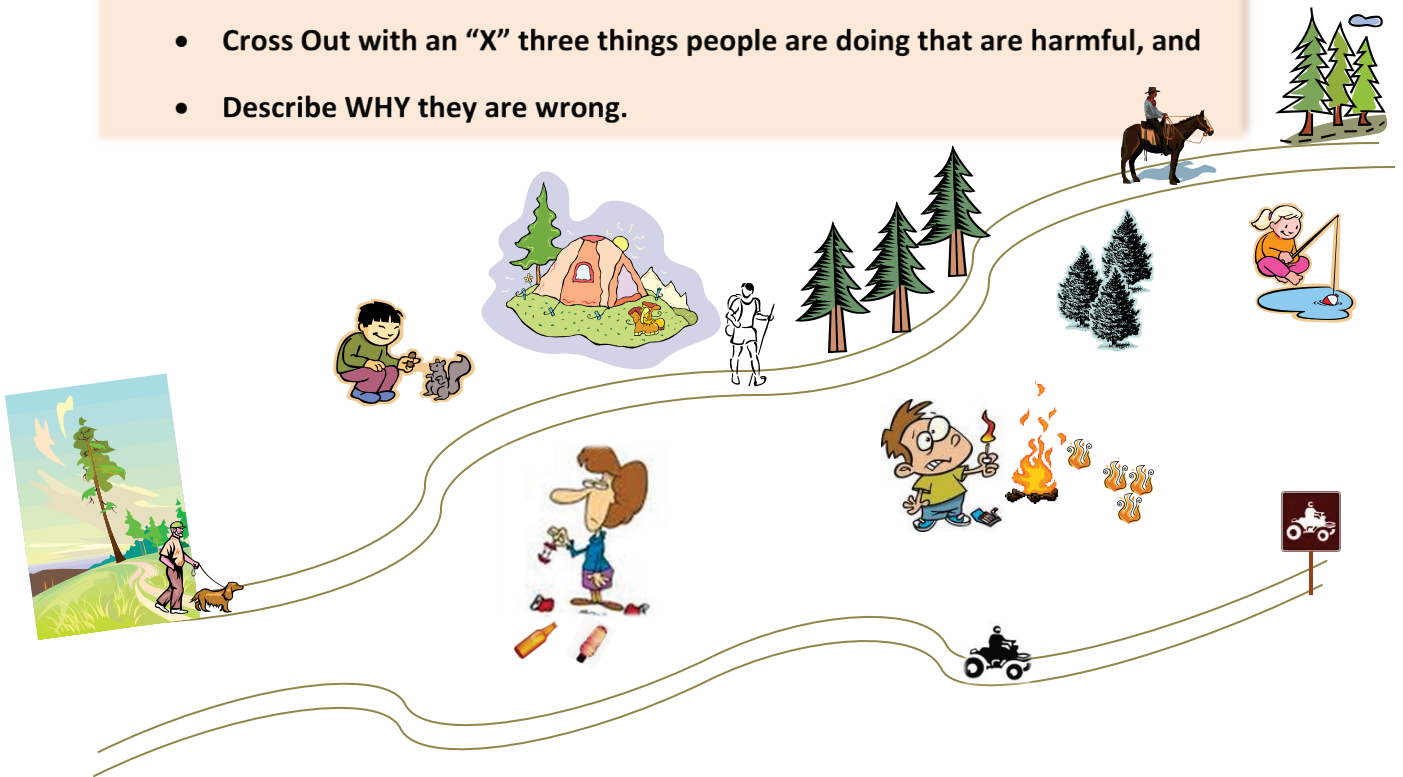
We need YOU!

As a Junior Forest Ranger, how can you be a good steward of the forest?



Look at the picture below: Only some of the people in the picture are not good stewards.

- Circle at least four good ways people are using the forest,
- Cross Out with an "X" three things people are doing that are harmful, and
- Describe WHY they are wrong.



1. _____

2. _____

3. _____



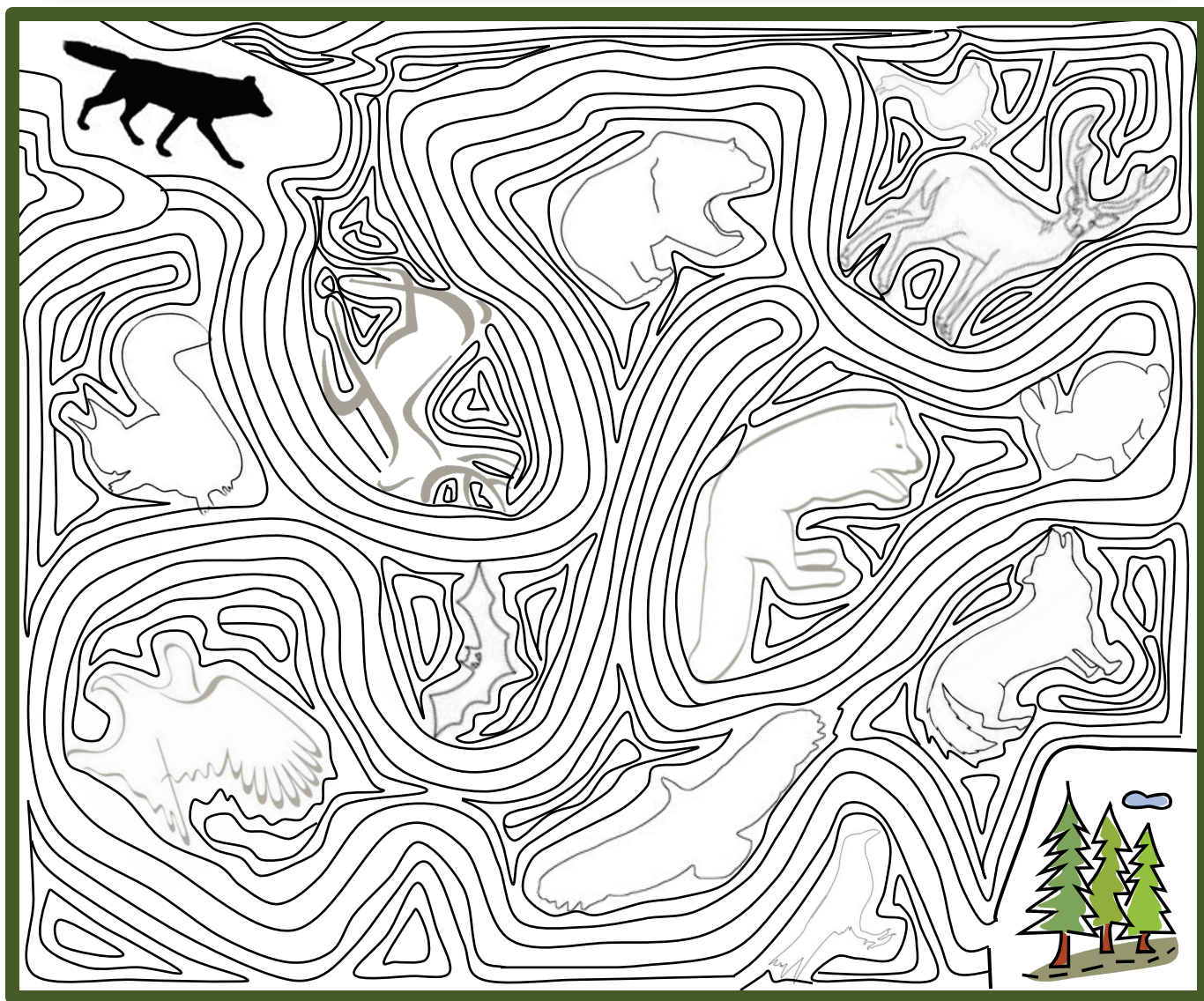
Wildlife In The Woods

The Apache-Sitgreaves National Forests have lots of wildlife. Many live here all year, while others visit for only part of the year, just like you. The forest has over 500 known kinds of animals including 105 kinds of mammals (like deer, elk, bears and squirrels); over 324 kinds of birds; 14 native fish; 25 non-native fish; 13 kinds of amphibians (frogs, toads and salamanders); and 36 kinds of reptiles (lizards and snakes).

Some like the Mexican gray wolf are endangered, which means they get special care and there are special rules to protect them so they don't disappear from the forest. Just like they are connected in the maze, all the different wildlife in the forest are connected to and need each other to survive.



Some of the forest's wild animals are hidden in this puzzle. Jump into the maze with the wolf and color each animal you find.



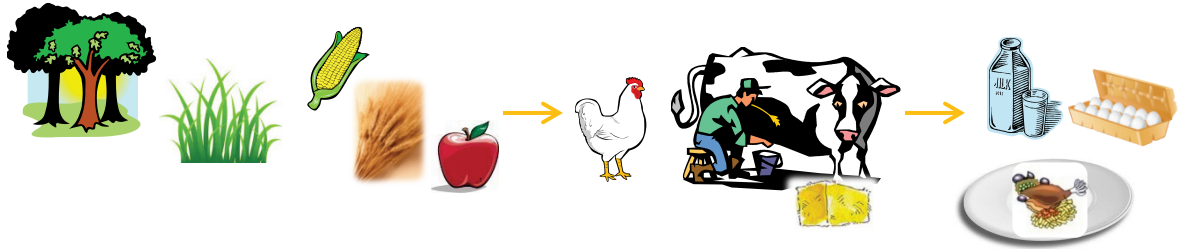
There are 12 wild animals, plus the wolf, in this forest maze. Count all the animals you find (you may count the wolf too) and write the number in this box. You must find and color at least 10 animals to become a Junior Forest Ranger.



Dinner Time - Pass The Sunshine Please!



Did you know that every bite of any kind of food you eat started with sunshine?



Most life starts with green plants that turns sunshine into food energy. This process starts a **FOOD CHAIN** with animals that eat plants (herbivores) being eaten by animals that eat meat (carnivores). Some animals, like bears, eat both (omnivore). What kind are you? Are you an herbivore, carnivore or an omnivore?

Forests are very important in this process of making and spreading out energy from the plants and trees, to wildlife and even to us. If you hunt, fish or gather food from the forest, you are part of this energy food chain!



What do these forest animals eat? Match the animals on the left to their food on the right.

Deer			Bugs, like mosquitos
Fish			Mice, rats and other small animals
Squirrel			Grasses and shrubs
Coyote			Fish
Beaver			Deer and other animals
Mountain Lion			The layer just under the bark of trees
Great Blue Heron			Seeds from pine cones and nuts like acorns



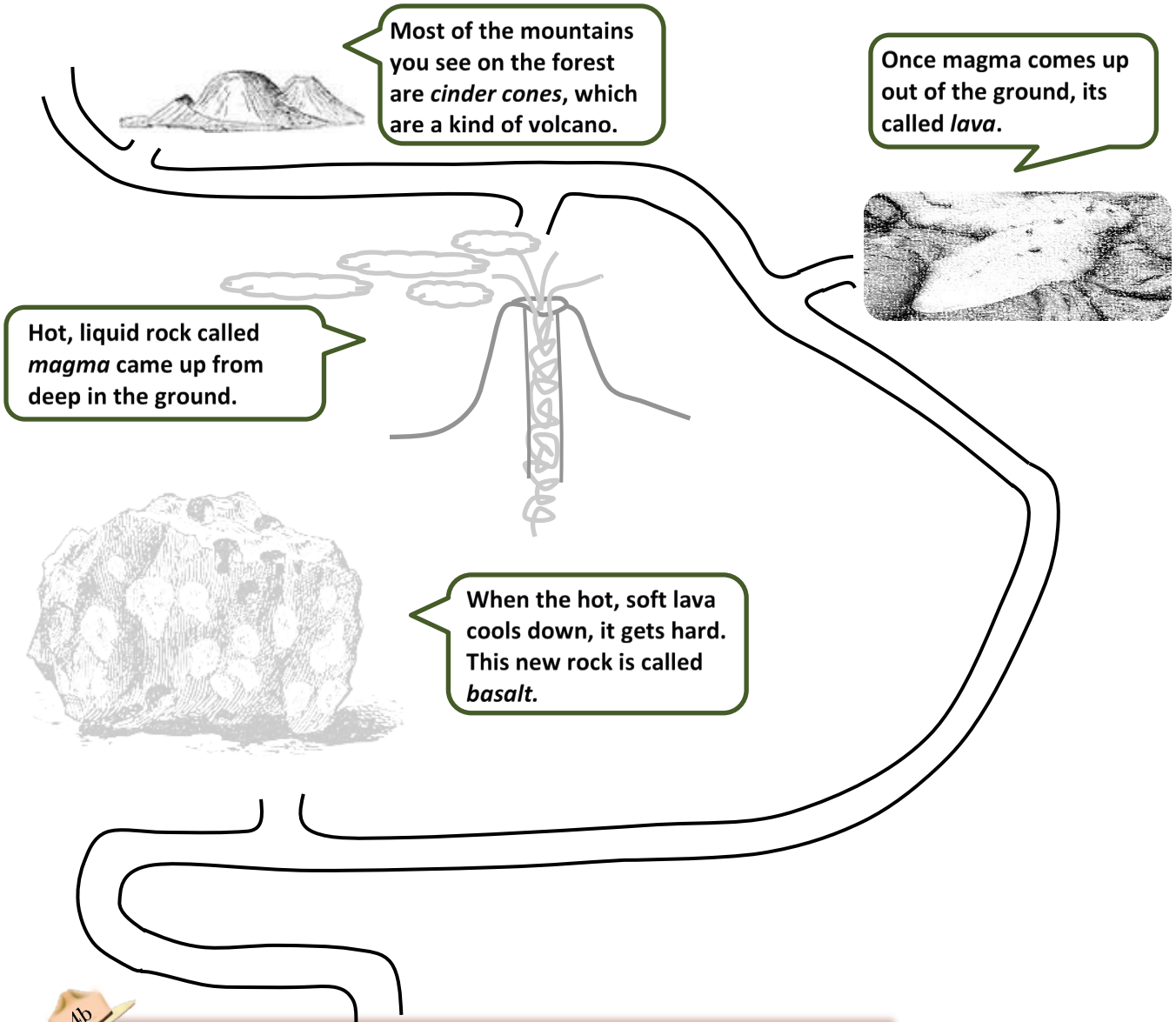
Rocks Talk!

By studying rocks, we can learn the story of how they were made. The stories of the rocks and earth is called geology.

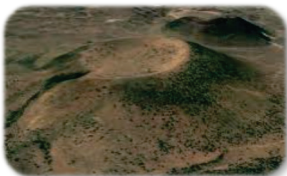
Some of the rocks and landforms of the Apache-Sitgreaves National Forests tell a story of volcanoes!



Go through the geology story of the forest and color each picture.



Can you find a cinder cone, a basalt rock or cinders on the forest?





Forest Home

Where you live is called your "home". Where wild animals live is called their "habitat". Habitat for animals is everywhere – it's the trees, grasses, flowers, and even rocks and dirt. It's where wild animals find food, water and shelter.

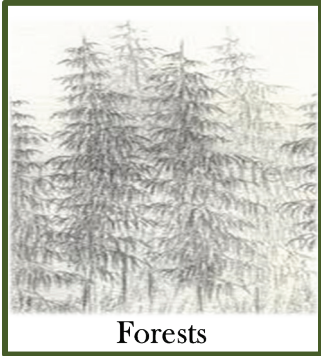
The Apache-Sitgreaves National Forests have many different habitats (homes) for over 500 kinds of wildlife. Some animals are found in more than one kind of habitat.



On the Apache-Sitgreaves National Forests you can see at least four different kinds of habitats. Match the kinds of wild animals on the right with which habitat they call home on the left.



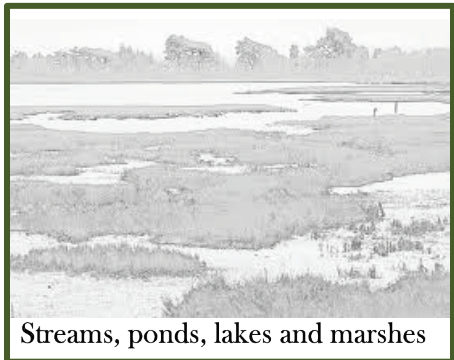
Mountain Slopes



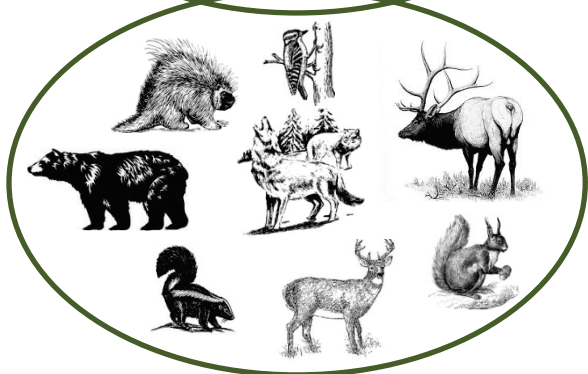
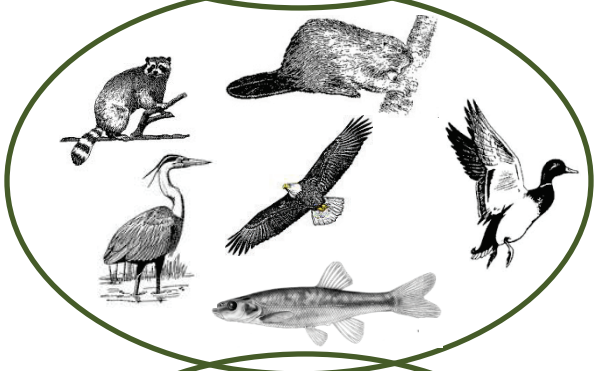
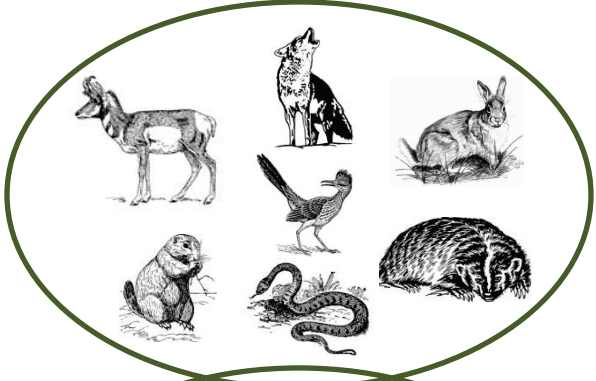
Forests



Grasslands






Streams, ponds, lakes and marshes





Same Forest, Different Trees

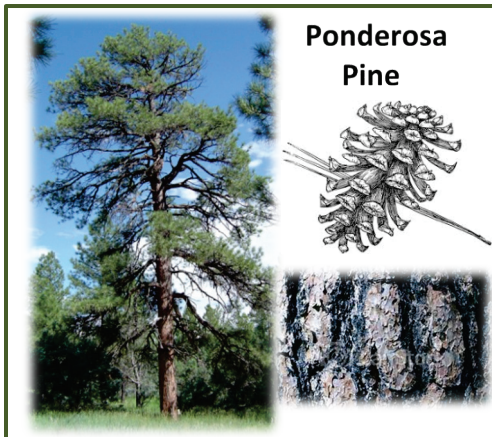
All trees are not the same. The forest has two different types of trees, evergreens =  (trees that keep their leaves all year); and deciduous trees =  (trees that shed their leaves in the winter).

Often the trees that shed their leaves in winter (deciduous trees) have leaves that change color before they drop off, making for beautiful fall colors. 

Leaves and pine needles do the same thing – they make food from sunlight. In the process, they also give off oxygen and water into the air.



Look at the different trees and write the name of the tree in the space with the tree's description. On the next line, write where you saw this kind of tree on the forest.



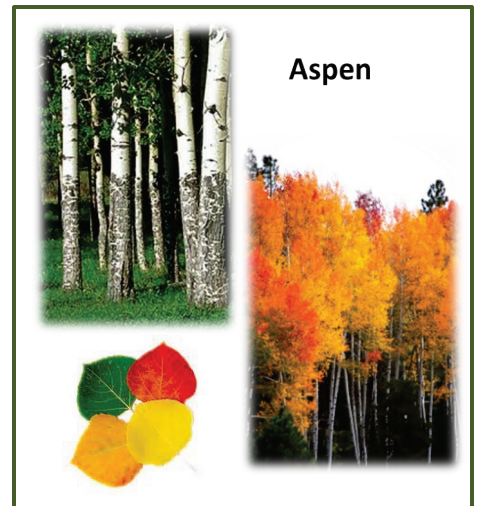
Ponderosa Pine



Gambel Oak
(Fall Color)



Douglas Fir



Aspen

1. What Tree Am I?

- I have big green leaves with lobes.
- I turn yellow in the fall.
- My leaves fall off in winter.
- My seeds are acorns.

I'm a _____ tree.

You saw one: _____

2. What Tree Am I?

- I have long needles for leaves in bundles of three.
- I stay green all year.
- My seeds are in pine cones.
- I have thick, puzzle-like bark.

I'm a _____ tree. I'm a _____ tree.

You saw one: _____

3. What Tree Am I?

- I have small, round leaves.
- I turn yellow, red, and orange in the fall.
- My leaves fall off in winter.
- My bark is white or grey.

You saw one: _____

4. What Tree Am I?

- I have short needles for leaves.
- I stay green all year.
- My seeds are in cones with little "tails" sticking out.
- I'm a big, shaggy looking tree.

I'm a _____ tree.

You saw one: _____



Safety First!



It's important to be safe when you visit the forest. Match each safety statement with the picture that illustrates the message.

Always hike with an adult and Stay on the trail

Stay at leAst 500 feet away from wildlife

Always stay inside a saFe building or vehicle during lightning storms

Help keep wildlifE wild and you safe! Never feed wild animals

Never wander away from camp or an adultT

Always carry water to drink and a rain coat to keep you drY



Find the magic, hidden word. Write each of the capital, underlined letters from each sentence above, in order, on the spaces below and learn the secret password.





Changing Times

The forest was once home to Native Americans for thousands of years. Today people called *archeologists* study the things those people left behind (called *artifacts*) to learn how they lived. The study of how people lived in the past is called *archeology*.

Archeologists are like detectives, piecing together the clues from the past like a puzzle.



Every object over 50 years old on the forest is protected by law. Even taking one artifact is like taking words out of a story or pieces out of a puzzle. If you find any of these clues to the past, leave them where you find them.

People who lived then had the same basic needs we do today. They needed to eat, drink, have clothing, and a home.



Connect each item from our lives today with something people used from the past.

Now



Then





Smokey Bear Says...



Take the Smokey Bear Pledge



I will **ONLY** start a campfire fire with an adult.



I understand that any fire could become a wildfire.



I understand and will practice proper guidelines for having a campfire.



I will **NEVER**, ever leave any fire unattended.



I will make sure our campfire is dead out before leaving.











I will speak up and step in when I see someone in danger of starting a wildfire.



Campfires Wanted Dead Out!



-  Let the wood burn completely to ash, if possible.
-  Pour lots of water on the fire – **DROWN** it.
-  Pour water on it until hissing sound stops.
-  Stir the campfire ashes and embers with a shovel.
-  Scrape the sticks and logs to remove any embers.
-  Stir and make sure everything is wet and cold to the touch.
-  **ALWAYS** use water. Continue adding and stirring until all material is cool.
-  Remember: do **NOT** just bury the fire in dirt - it will keep smoldering and could start a wildfire.



can prevent forest fires – **ONLY YOU!**





Wildland Fire

The summers of 2002 and 2011 will be remembered for a long time. During those summers, fires burned a total of 1,006,049 acres on the Apache-Sitgreaves National forests, which is almost half of the forests' total 2 million-plus acres. Both fires were caused by people being careless or by arson.

Many people thought that meant that over half of the forest was destroyed, but it wasn't. They forgot that fires are not new to this forest and that not all the acreage burned was destroyed.

The forest is adapted to low intensity natural fire, which can be beneficial.



Learn more about forest fires by filling in the blanks in the sentences below. Pick an answer from the list in the box below and write the word in each blank.

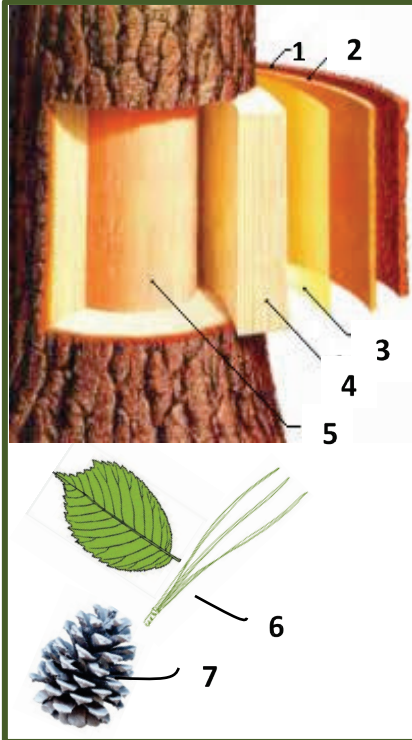
- 🔥 Natural fires are started by _____.
- 🔥 Ponderosa pine are fire resistant to ground fires because of thick _____.
- 🔥 After a fire, some plants and trees grow back from their underground _____.
- 🔥 Fire is a natural _____ that kept the forest healthy and from getting too thick as has happened in the past.
- 🔥 _____ trees need sunlight and open space and often sprout in burned areas after a fire. Without natural fires those trees are eventually crowded out by other trees.
- 🔥 Some plants and trees only release their _____ after a fire. This ensures they will have open space to grow, sunlight and fertilized soil.
- 🔥 Many insect _____ are controlled by fire.
- 🔥 _____ do best when they can eat the new plants that grow after fire.
- 🔥 Low intensity, natural _____ can help keep the forest healthy.
- 🔥 The Forest Service uses forest thinning and prescribed _____ to help restore forest health and reduce fire danger.
- 🔥 Fires started by careless people or on purpose are always put out and can be _____.

seeds	lightning	burning
process	pests	roots
harmful	bark	fire
aspen and oak		deer





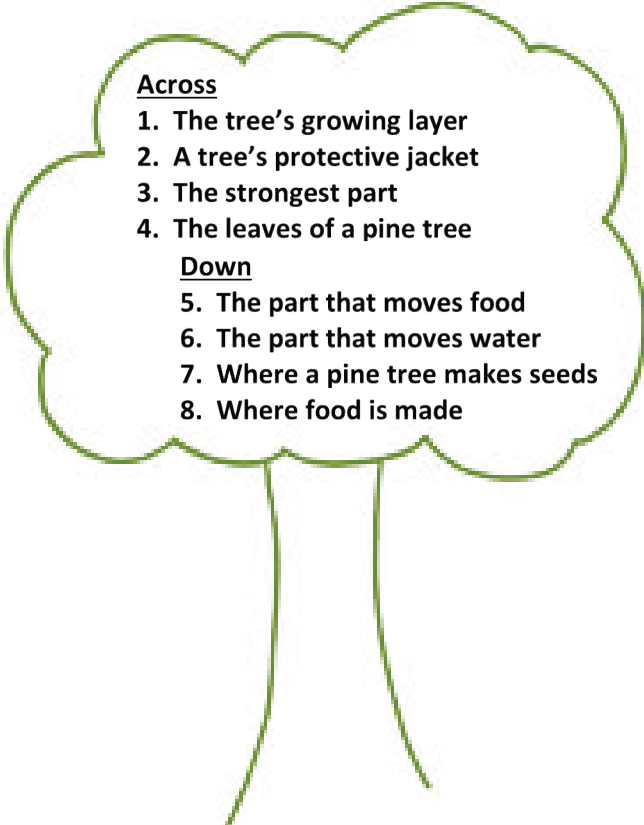
Tree Works



- 1 – Outer Bark: A protective jacket, like your skin.
- 2 – Inner Bark: Moves food through the tree.
- 3 – Cambium: The growing layer.
- 4 – Sapwood: Moves water through the tree.
- 5 – Heartwood: The strongest part of the tree that helps the tree grow straight and tall.
- 6 – Leaves/Needles (the food factory): Leaves change sunlight to food energy and transpire water (like people sweat).
- 7 – Cones: Where a conifer (cone-bearing evergreen) makes seeds.



Learn more about how trees work by completing the crossword puzzle below.



Across

- 1. The tree's growing layer
- 2. A tree's protective jacket
- 3. The strongest part
- 4. The leaves of a pine tree

Down

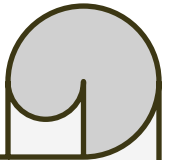
- 5. The part that moves food
- 6. The part that moves water
- 7. Where a pine tree makes seeds
- 8. Where food is made

1				5					
7							6		
2					-				
					-				
		8							
	3								
	4								



Forest Wise

From the mid-1800's to about 1905, people realized that natural resources are limited and need to be managed. This was the beginning era of concern about natural resources.



1800

1900

Dates	Historical Events	Conservation Quotes
1891	The Forest Reserve Act allowed the President to set aside public land as forest reserves, including Yellowstone National Park.	" <u>T</u> housands of tired, nerve-shaken, over-civilized people are beginning to find out that going to the mountains is going home; that wildness is necessity; that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life." – John Muir
1897	The Organic Act – For forest reserves and to provide for their protection.	
1905	The Forest Service was established to manage forest reserves, <u>w</u> hich were renamed national forests. Gifford Pinchot became the first chief of this new agency from 1905-1910.	" <u>C</u> onservation means the wise use of the earth and its <u>R</u> esources for the lasting good of men." - Gifford Pinchot
1908	The Apache-Sitgreaves National Forest were established. The Apache National Forest was named for the Apache Indian Tribe, and the Sitgreaves National Forest was named for Captian Lorenzo <u>S</u> itgreaves who conducted the first scientific expedition across Arizona in the early 1850's.	"We abuse land because we see it as a commodity <u>Y</u> belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect." – Aldo Leopold

Find the hidden word. Write each of the capital, underlined letters from the wording above, in order, on the spaces below. Then answer the questions.



What significant event in the history of the Forest Service happened in 1905?

For whom was the Sitgreaves National Forest named? _____

How did the Apache National Forest get its name? _____

Bring this completed Junior Forest Ranger Activity Book back to a ranger station or the Supervisor's Office on the forest to be checked and take your pledge to achieve your Certificate and Junior Forest Ranger badge!

**Junior Forest Ranger
Pledge**



**"I am a Junior Forest Ranger!
My job is never done,
I promise to keep on learning,
and share it with everyone,
I will only take memories and have lots of fun,
leaving only footprints
in the forest that I love."**



This Certifies That

*has completed the Junior Forest Ranger Program
at the
Apache-Sitgreaves National Forests
and is an official*

Junior Forest Ranger

*As a Junior Forest Ranger, I will leave flowers, animals
and other objects as I find them for others to enjoy,
put litter in a trash can, never play with fire,
always make sure the campfire is completely out,
learn more about forests and share what I have
learned with others.*

Forest Ranger

Date

