Wilderness Explorer
Jr. Ranger Activities and Adventures for All Ages
Welcome to Wilderness

This activity booklet is designed for exploring wilderness, either at a wilderness area you are visiting, one near your home, one you would like to visit, or one you just want to study. Activities are geared for ages 8 and up to adults, so look for the bear paw and choose the activities that are right for you.

ASK A RANGER! As you explore, you may find it helpful to ask a ranger or look for information in a visitor center. You and your adult can also look for information on the internet. Two great places to learn more about wilderness and national parks are:

- National Park Service www.nps.gov

Answers to many of the activities can be found on page 21.

Start exploring!

SPECIAL PLACES

Draw or describe a place that is SPECIAL to you in this space. Why is it special?

What might be SPECIAL about a place that is WILD?

What does the word WILD make you think of? Draw or describe it here.

People and Wilderness Ideas

Ask 3 people what they think "Wilderness" is. Record their responses here.

1. Person interviewed: __________________
   Wilderness is
   Example: A. a home for wild animals
   B. a quiet place to think
   C. a place to be free
   D. your idea

2. Person interviewed: __________________
   Wilderness is

3. Person interviewed (could be a ranger): __________________
   Wilderness is
WHAT IS WILDERNESS?

There are many definitions of WILDERNESS!

John Muir wrote:

“Wilderness is not only a haven for native plants and animals but it is also a refuge from society. It’s a place to go to hear the wind and little else, see the stars and the galaxies, smell the pine trees, feel the cold water, touch the sky and the ground at the same time, listen to coyotes, eat the fresh snow, walk across the desert sands, and realize why it’s good to go outside of the city and the suburbs.”

Edward Abby wrote:

“Wilderness is not a luxury but a necessity of the human spirit, as vital to our lives as water and good bread.”

Some Native American cultures do not have a word for wilderness, and believe that all land ought to be respected, and that wilderness is not a separate idea.

In 1964, Congress passed the Wilderness Act, recognizing that certain wild places are special and worthy of being protected forever. Here is the definition of wilderness from the Act:

“A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain.”

Note: A trammel is a word that can refer to a net, or a shackle for horses. Most generally, it means a barrier to free action; a restraint.

Think about what you have just heard and read about wilderness. Create your own definition of wilderness here.

Wilderness is

WILDERNESS SAFETY

Wilderness Explorers need to know about how to be safe when they’re exploring the wilderness. Being safe in wilderness begins before you start your trip.

- Always go with another person, such as a parent, friend, or sibling.
- Check the weather and conditions for the area you are visiting.
- Tell someone who is staying behind exactly where you are going and when you plan to return.

1. There are "10 essentials" you and your adult should have with you to be safe and prepared for emergencies. Each are outlined in a box below. Put them on the list.
2. What else would you like to bring? Circle the items below. Don’t make your pack too heavy!

TEN ESSENTIALS

1. 2. 3. 4. 5. 6. 7. 8. 9. 10.
There are over 700 wilderness areas containing over 109 million acres of wilderness. The National Park Service manages 60 units of wilderness designated by Congress, and 40% of the land area within the National Wilderness Preservation System. There are many other areas in National Parks that have proposed wilderness. Over 83 percent of the land in National Parks is managed as wilderness.

Draw or name something you would find in wilderness in Alaska.

Using the map at the right, find the answers:
1. How many wilderness areas are in your home state?
2. How many wilderness areas are in the state you are visiting?
3. Which state has the greatest number of wilderness areas?
4. Six states have no wilderness areas. Name them here:

   Ask a Ranger (or check the visitor center or the internet):
   How much wilderness is in this park?
   Where is the ranger’s favorite place to go in wilderness?

   Just for fun, color all the states you have visited.

Put an X on the Olympic Wilderness and the Saguaro Wilderness.

Using the ruler below (cut it out if needed), estimate the distance between the two wilderness areas: ________ miles.

5. Using the ruler below (cut it out if needed), estimate the distance between the two wilderness areas: ________ miles.

6. Suppose that you and your family could drive from one to the other at 60 miles per hour (mph). How long would it take to get there? Hint: distance _______ (miles) ÷ speed _______ (mph) = time _______ (hours).

What might you find that is different between the two wilderness areas?

Which wilderness area named here is closest to:
New York City?
Denver?
San Francisco?

The numbers show how many wilderness areas are in each state.
The names are just a few of the wilderness areas in national parks.

What might you find that is different between the two wilderness areas?

Which wilderness area named here is closest to:
New York City?
Denver?
San Francisco?

The numbers show how many wilderness areas are in each state.
The names are just a few of the wilderness areas in national parks.
WHO WAS HERE BEFORE?

Ask a Ranger (or check the visitor center or the internet):

1. What people lived here before the Europeans came?

2. Did these people live in villages or did they move their homes to follow and hunt animals? Draw a picture of where they might have lived below:

3. What things might these people have eaten (such as roots, berries, buffalo)? List or draw a picture below:

4. Do these people or their descendants still live here or near here?

Important: If you find any arrowheads, pieces of pottery, or other old objects be sure to leave them where you found them!

Answer the first four questions, plus:

5. Did these people have names for any of the natural features such as mountains, rivers, or valleys? Write down one of the names here:

6. Is this name different than the one on the park map?

WILDERNESS WORD SEARCH

WH G K F Z B E J L Q W P Y R V N S U E H F K C T
S X O N Q U H P H O T O G R A P H I N G S B R Y W
A V O R L N E H I D C L W C I B E T D A H I D E L
M C I P S W O N K U R N A M L R O D E H P O C B E
E J Y O A S B L N M P R I M I T I V E N D T O N H
S X C N V B N A G W U I C G P E X S L A R V L Q F
E A H T L R T I C P E D O R K N W Y O P Q U I E T
A D G R J E Y F I K N A F I S E P L A S T V P
R U L A W O B E S J O B S H N B T A E O G E U L C
H T R T O F R K D I L F P C A Y R U N I Q U E T H
S V N K I P A C T H U T E G K L X W P F S A R N K
W A T E R S H E D E P A U N S P O I L E D E F C B
R Y E G C D T O F M K B S G R M A D U L C Y A P Z
T A H N W E L N Q S G A L W H T E C N S H E R N K
E R W S B N T M A D E Q U R C L V D K P C U L F S
F U T U R E S G R T L A T S K R A P J I L Z E M C
D A C H T K Z B Y E U G N U L O W A Y R N O K D E
L W U S V N P R E S E R V E H S M D K I W G F H N
Y L P T N S U F R M O R E M L N I T A L U V E G W R
A D C H I T A W U B K V A F C I J Q A B R A H Y
N G U N C O N F I N E D W E N T P H D L N I C E R
Z S E R I L T D H R E C R E A T I O N Y D E M P S

Words may be horizontal or diagonal, left to right

Find at least 8 words
Find at least 12 words
Find all words

BACKPACKING  NATURAL  RESEARCH  UNIQUE
CONTRAST  PHOTOGRAPHING  SCENERY  UNSPOILED
FREE  PRESERVE  SOLITUDE  UNTARAMMELED
FUTURE  PRIMITIVE  SPIRITUAL  VIEWS
HIKING  QUIET  UNCONFINED  WATERSHED
HORSEBACK  RECREATION  UNDEVELOPED  WILD
The Wilderness Act defines wilderness as a place where "man himself is a visitor who does not remain." How can you be a responsible Wilderness Explorer? The Seven Principles of Leave No Trace are a good starting place:

1. Plan ahead and prepare
2. Travel and camp on durable surfaces
3. Dispose of waste properly
4. Leave what you find
5. Minimize campfire impacts
6. Respect wildlife
7. Be considerate of other visitors

Go through the maze on the next page and apply these principles.

Help Leave No Trace here at this National Park!

- Pick up three pieces of litter and put them in the trash.
- Pick up a bag of litter and put it in the trash.
- Pick up a bag of litter. Separate and recycle as many items as possible. Put the remainder in the trash.

**RECYCLING** is better for the Earth than putting things in a landfill, but it still takes a lot of energy to recycle. **REUSE** is even better for the Earth. Refill your water bottle and conserve the Earth’s resources.

Just for fun, decorate and color the water bottle in this book or your own water bottle.

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These Wilderness Explorers are about to go on a trip through a Wilderness Area. Help them make the best choices about where to go and what to do along the way. Each stop has a numerical rating with it. Add up your score & find your impact level on page 21.

**points**

A. 1  
B. 2  
C. 1  
D. 3  
E. 2  
F. 1  
G. 5  
H. 1  
I. 5  
J. 1  
K. 5  
L. 1  
M. 1  
N. 3  
O. 5  
P. 1  
Q. 1  
R. 1  

**my total**  

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Wilderness is a place where scientists can go to understand plants, animals, and landscapes that are in a natural state, unaffected by human activities.

As a scientist, you will ask a question, make a prediction (called a hypothesis), and test your hypothesis by observing the thing you asked a question about.

1. Go outside and find a plant or animal to observe. Describe it here with words and/or pictures:

2. Come up with a question about it. For example, what does this bird eat? Does this plant prefer to live in dry soil or wet?

3. Make a hypothesis. This is an "educated guess" about the answer to your question. For example, "I think that the bird eats ..." or "I think that the plant will grow in soil that is ...

4. Think about and describe how you could test your hypothesis. If it is possible to test the hypothesis by making observations, then do so. If not, think about what kinds of observations you can make. For example, "I will observe the bird and see what it eats..."

5. Write down your observations here.

6. Do you think the animal or plant you observed was affected by people being nearby? If so, how?

Complete the six previous questions, plus

ASK A RANGER (or check the visitor center or internet):

What kinds of research is going on in the wilderness you are visiting or studying?

Complete the seven previous questions, plus:

8. Develop a hypothesis that would best be tested both inside and outside of wilderness. Why would it be important to compare observations inside and outside of wilderness?

Do you participate in your school’s science fair? Consider a wilderness hypothesis for a your fair project.
What can you do in Wilderness Areas?

• In this picture, put an "X" through the things that you think DON'T belong in Wilderness.

• Color the things that you think DO belong in wilderness.

• Draw yourself doing something that YOU would like to do in Wilderness.
The best way to learn about wilderness is to get out and explore it! Find out where the wilderness areas are in this park, and plan an outing with your family. If you are unable to go to a Wilderness area, ask a park ranger to help you find an accessible place that is away from development like roads and buildings. Make sure you complete the “Wilderness Safety” activity before you head out.

Try to notice what makes wilderness different from places you usually spend time in. Use ALL of your senses. Sit still for 5 minutes and notice what you:

See
Hear
Smell
Feel

Most importantly, enjoy yourself!

When you get back, think about what you would tell a friend about your wilderness experience. Be creative! You can write a story or poem, draw a picture, or perhaps make up a song or play. Your notes from the last page may help you get started. Use the space below to write, sketch, or organize your ideas for a performance.
Wander through time and history to explore the idea of wilderness.

### Wild Words

<table>
<thead>
<tr>
<th>Dates</th>
<th>Historical Events</th>
<th>Wilderness Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1607</td>
<td>Jamestown, Virginia settled</td>
<td>“Wilderness is a damp and dreary place where all manner of wild beasts dash about uncooked!” — Anonymous, 1600</td>
</tr>
<tr>
<td>1803</td>
<td>Louisiana Purchase</td>
<td>“There is a pleasure in the pathless woods, there is a rapture in the lonely shore, there is society where none intrudes, by the deep sea, and music in its roar: I love not man the less, but Nature more…” — Lord Byron, British Poet, 1816</td>
</tr>
<tr>
<td>1806</td>
<td>Louis and Clark Expedition returns</td>
<td>“That morning’s march was one not easily to be forgotten. It led us through a sublime waste, a wilderness of mountains and pine forests, over which the spirit of loneliness and silence seemed brooding.” — Francis Parkman, author of Oregon Trail, 1849</td>
</tr>
<tr>
<td>1899</td>
<td>Transcontinental Railroad completed</td>
<td>“Thousands of tired, overcivilized people are beginning to find that going to the mountains is going home; that wilderness is a necessity…” — John Muir, naturalist and co-founder of the Sierra Club, 1901</td>
</tr>
<tr>
<td>1930 - 1945</td>
<td>Major road and dam construction in the American west, including Hoover Dam and Grand Coolee Dam.</td>
<td>“Wilderness is melting away like some last snowbank on some southern facing mountainside during a hot afternoon in June. The momentum of our blows is so unprecedented that the remaining remnant of wilderness will be pounded into road-dust licks before we find out its values.” — Bob Marshall, Co-founder of the Wilderness Society, 1937</td>
</tr>
<tr>
<td>1955</td>
<td>Development of Echo Park Dam at Dinosaur National Monument is defeated.</td>
<td>“Against pressures for economic or recreation development, it is claimed, the efforts for preservation cannot be justified by the relatively few who use wilderness regions.” — Dr. James P. Gilligan, Forester, 1954</td>
</tr>
<tr>
<td>1962</td>
<td>Scientist Rachel Carson publishes Silent Spring, a book publicizing the dangers of pesticides and the environment.</td>
<td>“The wilderness that has come to us from the eternity of the past we have the boldness to project into the eternity of the future.” — Howard Zahniser, Author of The Wilderness Act, 1964</td>
</tr>
<tr>
<td>1964</td>
<td>President Lyndon Johnson signs the Wilderness Act</td>
<td>“If future generations are to remember us with gratitude rather than contempt, we must leave them something more than the miracles of technology. We must leave them a glimpse of the world as it was in the beginning, not just after we got through with it.” — President Lyndon B. Johnson, 1964</td>
</tr>
</tbody>
</table>

1. Wild Word Scramble: Find the one highlighted letter in each quote, and write them here: [___][___][___][___][___][___][___][___][___][___]

Now unscramble the letters to form a special word in The Wilderness Act (hint: see the quote from The Wilderness Act on page 4): [___][___][___][___][___][___][___][___][___][___]

2. What significant event in the history of wilderness occurred in 1964?

3. Has more wilderness been created since then?

4. How do you think society's thoughts about wilderness have changed over time?

5. Pick a quote and explain why you agree or disagree with it.
Many plants and animals have been moved from one side of the world to another for food, farming, hunting, and sometimes by accident (like hitching a ride on a boat). Some times these plants and animals (called "invasive") escape and have big effects on natural systems and change wild places.

An example is buffelgrass, a South African plant that is invading the Saguaro Wilderness. Buffelgrass easily catches fire. It pushes out the native plants including saguaro cacti. An area of buffelgrass can double every year.

1. Use the table below to calculate how many years it would take for buffelgrass to push out saguaro cacti in this simplified model of the ecosystem. In year 1, buffelgrass occupies one square (B) and the rest are occupied by saguaros (S). In year two, put a B in two times as many squares, and put an S in remaining squares. Continue to double the amount of buffelgrass each year. In what year is there no more room for saguaro cacti?_______

<table>
<thead>
<tr>
<th>Year</th>
<th>B</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>B</td>
<td>S</td>
</tr>
<tr>
<td>2</td>
<td>S</td>
<td>B</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
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<tr>
<td>5</td>
<td>B</td>
<td>S</td>
</tr>
<tr>
<td>6</td>
<td>S</td>
<td>B</td>
</tr>
<tr>
<td>7</td>
<td>B</td>
<td>S</td>
</tr>
</tbody>
</table>

2. Why does this matter? ____________________________________________

Ask a Ranger (or check the visitor center or internet): What is the name of an invasive plant or animal that affects the wilderness you are visiting or a wild place near where you live? How does it affect the wilderness?

For these activities, there is no "right" answer. Check the ones you have completed.

Page 2, Special Places
Page 3, People and Wilderness Ideas
Page 4, What Is Wilderness?
Page 8, Who Was Here Before?
Page 5, Wilderness Safety
1. Ten Essentials
   1. Map of the area
   2. Compass
   3. Flashlight
   4. Extra food, such as energy bar
   5. Extra clothing, including rain gear
   6. Sunglasses and sunscreen
   7. Matches, waterproof container, fire starter
   8. Pocket knife
   9. First aid kit
   10. Water

2. What Else to Bring
   Things you might want to leave at home: TV, hair dryer, toaster, boombox, high heeled shoes.
   Note: It's OK to bring a cell phone or a GPS, but do not rely on these devices for safety. There may not be coverage and/or batteries may run down.

Page 6, Where Is Wilderness?
1 and 2. It depends upon which state you pick.
3. California—Yosemite
   4. CT, DE, IA, KS, MD, RI
   Other questions—many answers

Page 7, Are We There Yet?
5. 1200 miles ÷60 mph = 20 hours
   6. Answers vary
   7. New York City—Fire Island Wilderness
   Denver—Rocky Mt. National Park
   San Francisco—Yosemite Park
   Other questions—many answers

Page 8, Raiders of the Wild
1. The buffelgrass replaces all of the saguaro cacti in year 5.

Page 9, Wild Word Search
1. UNTRAMMELED
   2. President Lyndon Johnson signed The Wilderness Act.
   3. Yes
   Other question—many answers

Pages 10-11, Leave No Trace Litter Pick-up
Page 12-13, Be a Scientist
Page 16-17, Wilderness Adventure
Page 22-23, Wild Windows

Pages 14-16, What Can You Do in Wilderness?
Everything in the picture belongs, except: road, store, jeep, all-terrain vehicle (ATV), cell tower, power line, jet ski, and the mountain bike. To learn why, check the definition of Wilderness on page 4. If this is a mountain forest, the palm tree does not belong. The garden gnome? Now that's just silly.

Pages 18-19, Wild Words
1. UNTRAMMELED
   2. President Lyndon Johnson signed The Wilderness Act.
   3. Yes
   Other question—many answers

Page 20, Raiders of the Wild
1. The buffelgrass replaces all of the saguaro cacti in year 5.
   Other question—many answers

CREDITS: Produced by the National Park Service Intermountain Region. Compiled by Anna Lieb, volunteer, Suzy Stutzman, IMR Wilderness Coordinator, and Lori Kinser, IMR Visual Information Specialist. Advice from the interpretive staff at Great Sand Dunes National Park and Preserve and the Intermountain Region, and members of The University of Colorado Wilderness Study Group. August 2011
Wild Windows

Make a window frame by following the directions on the next page. Now go outside.

1. Use the window to frame a view where you can see things made by people, such as a road or a building. Draw or describe the view in box #1 below.
2. Use the window to frame a view where you can’t see anything made by people. Draw or describe the view in box #2 below.

3. In which window do you think you would be more likely to see wildlife?
4. What did you like in each window? What did you not like?

Cut or tear out this post card along the dotted lines.
- Use this page with the hole as a frame for the activity on page 22.
- Save the post card—draw a picture on the other side about your wilderness visit and mail it to a friend.
Use this cut-out for the Wild Windows activity on pages 22-23, and to make a postcard for a friend.
Wilderness Explorer Certificate of Achievement

has successfully completed the requirements to be an official National Park Service Wilderness Explorer Jr. Ranger

Official ___________________________ Date ____________
You can become an official National Park Wilderness Explorer Jr. Ranger. Follow the instructions on page 2 of the Wilderness Explorer Jr. Ranger Activity and Adventure booklet. Complete the appropriate number of activities for your age, and keep track of what you have done on page 21 of the booklet. When you finish, bring your booklet to the park visitor center and find a ranger to complete your certificate.

**Ages 8 to 11:** Complete at least 6 activities.

**Ages 12 to 15:** Complete at least 8 activities, including 2 for ages 12 and up.

**Ages 16 and up:** Complete at least 10 activities, including 2 for ages 12 and up and 2 for ages 16 and up.