

## Who are the Junior Rangers?

EXPLORE,

LEARN,

and **PROTECT** 

That's the Junior Ranger motto! As a Junior Ranger, you can explore the parks, learn about nature and history, and help protect them by learning and following the park rules.

To earn *your* Junior Ranger badge, complete as many pages as you can and visit at least **TWO** sites on the

trail. Return your booklet to a Field Ranger, or mail it to the address on the credits page, fill out the certificate, and take your pledge!

### Pledge to Leave No Trace!



#### Know Before You Go

Be prepared! Bring clothes to protect you from the cold, heat or rain. Use maps to show you where you'll be going so you won't get lost. Learn about the areas you visit before you head out.



#### ★ Choose the Right Path

Stay on the main trail to protect nature and keep from wandering off by yourself. Steer clear of flowers or small trees.



#### 🖈 Trash Your Trash

Pack it in. Pack it out. Put litter, even crumbs, in trash cans or carry it home.



#### Leave What You Find

Leave plants, rocks, and other items as you find them so the next person can enjoy them.



#### 🛨 Be Careful With Fire

Use a camp stove for cooking. Use existing fire rings to protect the ground from heat. Keep your fire small. Make sure the fire is out and cold when you leave.



#### 🖈 Respect Wildlife

Observe animals from a distance and never approach, feed or follow them!



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#### Be Kind To Other Visitors

Make sure the fun you have outdoors does not bother anyone else. Listen to nature, and avoid loud noises.

\_\_\_\_\_, *pledge to apply* Leave No Trace principles wherever I go!



# Floods of Lava

Around 15 million years ago, massive floods of lava oozed out of giant cracks in the ground called **fissures**. The lava spread all over the Pacific Northwest through Idaho, Oregon and Washington. When the lava cooled, it formed thick layers of basalt rock. The massive layers make up the bedrock of the landscape you see throughout the trail. As lava cools, it shrinks and cracks. The top of the flow hardens into smooth irregular cliffs, while the bottom hardens

into columns. Each layer of columns represents a different lava flow.

> Draw some basalt layers you've found along the trail!

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Basalt layers also come in

different types of colors.

Some are black gold or red. Some areas look as

## What are the





Around 15,000 to 18,000 years ago—during the last Ice Age—a giant sheet of ice spread across northern Montana, Idaho, and Washington. **The Cordilleran Ice Sheet** created huge, solid **ice dams** along the rivers in the northwestern United States. In Montana, an ice dam on the Clark Fork River created the massive glacial lake Missoula. The lake had an area of 1,528 square miles, more than 10 times the size of Seattle! As the depth of the lake increased, cracks formed in the dam causing it to burst. Giant floods 4,200 feet tall (12 football fields!) carved

through the basalt plateau at speeds up to 65 miles per hour, creating the Channeled Scablands we see today. Evidence of these floods can be seen throughout the Ice Age Floods National Geologic Trail.



Marshy areas with water-loving plants, animals, and trees.