Bosque Virtual Hike Student Booklet
Complete this book as you walk through the woods. At each STOP, pause the video to answer the questions or complete the activity.

STOP 1: Cottonwood Tree
Why are the cottonwood tree seeds having a hard time growing in the Bosque?

Is this a picture of a male or female cottonwood tree? How can you tell?

STOP 2: Invasive or Exotic Species
Some plants, like the cottonwood trees, have been growing in the Bosque for thousands of years. We refer to these as native species. Others, like the Russian Olive shown below, were introduced more recently by people. We call these plants invasive, or exotic species.

Look around your yard. See if you can identify any of the plants. Look them up online. Are they native or exotic to New Mexico? Write the names here:
STOP 3: Animals of the forest
Match the following animals with the homes they live in: spider, hummingbird, porcupine, and rabbit. Write the names below the pictures.

<table>
<thead>
<tr>
<th>Home 1</th>
<th>Home 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Image" /></td>
<td><img src="image2" alt="Image" /></td>
</tr>
<tr>
<td><img src="image3" alt="Image" /></td>
<td><img src="image4" alt="Image" /></td>
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</tbody>
</table>

What other animals live in the Bosque?

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STOP 4: Porcupine
Next time you are walking in the Bosque, look up! You may see a porcupine high in the branches of a cottonwood tree.

Let’s test your knowledge about these amazing animals. True or False? Circle One

1. Porcupines can shoot their quills. True False
2. Most porcupines have about 30,000 quills. True False
3. Porcupines are the world’s third largest rodents. True False
4. Porcupines are excellent climbers. True False
5. Porcupines lay eggs. True False
6. Porcupine teeth never stop growing. True False
7. Porcupines are really fast runners! True False
8. They can weigh up to 35 pounds. True False
9. Porcupines can grunt, whine and screech! True False
10. Baby porcupines are called porcupettes. True False

(Check your answers at the end of the workbook.)

STOP 5: Decomposers
Decomposers have an important job – they break down dead organisms.

This is called shelf fungi. It is helping to break down the dead tree. You can find it growing throughout the Bosque.
Check out this website by National Geographic about decomposers: 
https://www.nationalgeographic.org/encyclopedia/decomposers/

List three types of decomposers:

STOP 6: The Rio Grande River

List the two places in Albuquerque where we get our drinking water:

Here in Albuquerque, we get about 70% of our drinking water from the Rio Grande. Scientists at the Water Authority clean it so that it is safe for us to drink. Take a virtual tour of our drinking water treatment plant here:

http://www.abcwua.org/education/el_WSD_2.html

Then answer these questions:

1. What color are the pipes that deliver water which is being reused? ________________

2. What happens in the ponds at the beginning of the treatment process?

3. How do we get the smallest particles, or sediment, out of the water?
4. What does ozone do to the water? ______________________________________________________________________

5. Why is chlorine added to the cleaned water at the end? ______________________________________________________________________

6. How many miles of underground pipe carry our drinking water to homes throughout Albuquerque? ______________________________________________________________________

STOP 8: Human Impact

Sadly, humans have impacted the river and the Bosque in some negative ways. Circle what belongs in the forest, or in the river. Cross out what does not.

<table>
<thead>
<tr>
<th>Forest</th>
<th>River</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crane</td>
<td>Mole</td>
</tr>
<tr>
<td>Fire</td>
<td>Sun</td>
</tr>
<tr>
<td>Cigarette</td>
<td>Beaver</td>
</tr>
<tr>
<td>Sunflowers</td>
<td>Turtles</td>
</tr>
<tr>
<td>Rubble</td>
<td>Buildings</td>
</tr>
</tbody>
</table>
STOP 9: Positive solutions – Protecting the Bosque and the Rio Grande
What can you do to help?
List three ways you can protect the Bosque:


When you save water at home, that means we can leave more water in the river! List three ways you can save water every day:


Answers to porcupine questions: 1F 2T 3T 4T 5F 6T 7F 8T 9T 10T
Bonus question! Which two rodents are larger than porcupines?