



Description: Take a walk in the bosque using Bosque Search Bingo cards to help focus a discovery walk.

Objective: Students will discover and observe components of the bosque.

Materials: bingo cards (one for each student)

optional: colored pencils, markers or colors, construction paper, scissors, glue. You can laminate the finished cards and use markers that will easily rub or wash off; i.e. dry-erase or china markers, or use paper copies directly from this book.

Background: Here are some interesting facts you can share with your students about the things they may find.

Chewed leaves are mostly chewed by insects or other arthropods. The major group of animals that eat leaves in the bosque are pillbugs and woodlice. These arthropods were introduced into this ecosystem from Europe!

Cottonwood cotton is the seed of the cottonwood tree. The fine cotton-like fibers surrounding the tiny seed allow the wind and water to transport the seed. Cottonwood trees are either male or female. "Cottonless" cottonwood trees are male trees. Only female trees produce seeds; the developing female catkins are locally called *tetones* and resemble peas until they open. Cottonwood seeds or cotton "fly" in late May or June, but old cotton can be found year-round under logs or in crevices.

Rolled leaves are rolled by a caterpillar for its home. The caterpillar eventually becomes a small moth. These are commonly found in the Albuquerque area. They are less common further south.

1. Bosque Search Bingo



Grades: K-8

Time: material preparation: one class period if students prepare their own cards; otherwise only the time to make photocopies

field activity: 15 to 60 minutes

Subject: science

Terms: *aquatic, bosque, terrestrial, terminal bud scale*



Star twigs: Have students pick up a cottonwood twig from the ground. Find a terminal bud scale scar (See “Winter Bud Activity” for an illustration). It looks like a ring or collar that circles the twig. Snap the twig in two at this point. Look at the star shape formed by the pith of the twig, the cells in the center of the stem.

Procedure: Material preparation:

Included are two bingo cards and art to change the bingo cards to more accurately reflect the bosque near you. The Year-round Card (1) is for the Middle Rio Grande Valley, and items may be found in some shape or form year-round. The Seasonal Adaptations Card (2) features items found only during spring, summer or fall. Special Adaptation Squares (3) are for (a) upper or (b) lower river adaptations; (c) special seasons items can be used in winter or spring.

Copy a Bosque Search Bingo page for each student. Optional: have students color the page, then cut it apart. Mix up the pieces and glue them on a piece of construction paper. Laminate them for future use, or copy and laminate one of the cards provided. Paper copies can be placed in a student notebook when finished.

There are areas of the bosque where students can get disoriented and lost. Set limits, such as a physical area, for students to obey. “You must stay between this road, the jetty jacks and the river,” “within sight of the teachers” or “behind one teacher and in front of another.” This activity encourages exploration, but safety should also be a concern.

Go to the bosque. Hand out bingo cards and markers, and start your walk. See how many items you can find. If it is easy, then try to find all items on the card. Discuss the activity as a group. What was the easiest item to find? What was the most difficult item to find? Did anyone find it? What was most interesting? What was most surprising? Did you find anything else of interest while you were looking for things on your card?

Assessment: Participation in the activity with the group.

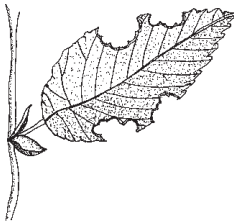
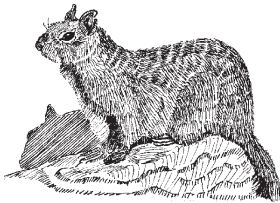


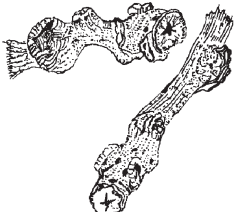

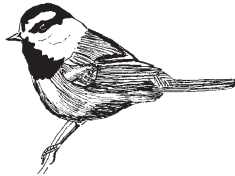
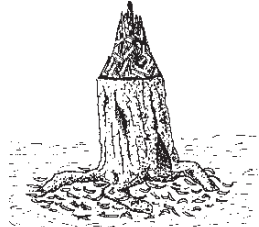



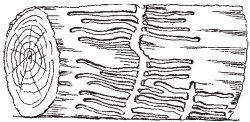
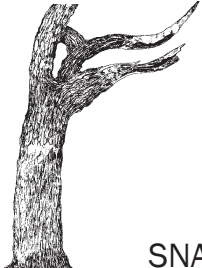

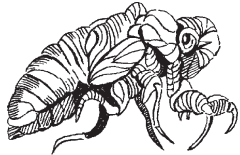

Extension: Use one page of the Bosque Discovery Booklet for students to examine and discover in more detail the components of the bosque. Students may draw and write observations about one of the bosque bingo components.

Bosque Search Bingo

Drawings by Gregory Scheib and George Mauro



1. Year-round Bosque Bingo Card

 <p>CHEWED LEAF</p>	 <p>SQUIRREL</p>	 <p>ANIMAL BURROW</p>	 <p>BIRD NEST</p>
 <p>COTTONWOOD STAR TWIGS</p>	 <p>ANIMAL TRACKS</p>	 <p>PERCHING BIRD</p>	 <p>BEAVER TREE</p>
 <p>SANDY SOIL</p>	 <p>COTTONWOOD LEAF</p>	 <p>RUSSIAN OLIVE SEEDS</p>	 <p>BARK BEETLE TRACKS</p>
 <p>SNAG</p>	 <p>ANIMAL PELLETS</p>	 <p>CICADA SHELLS</p>	 <p>CANADA GOOSE</p>

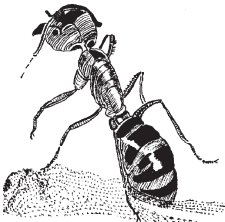






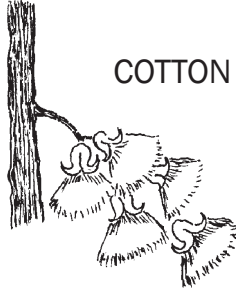


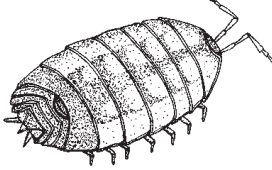
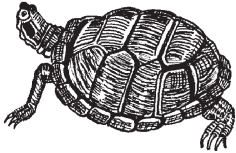

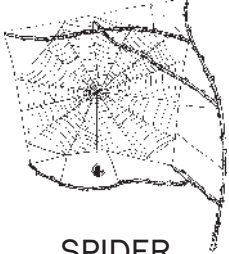

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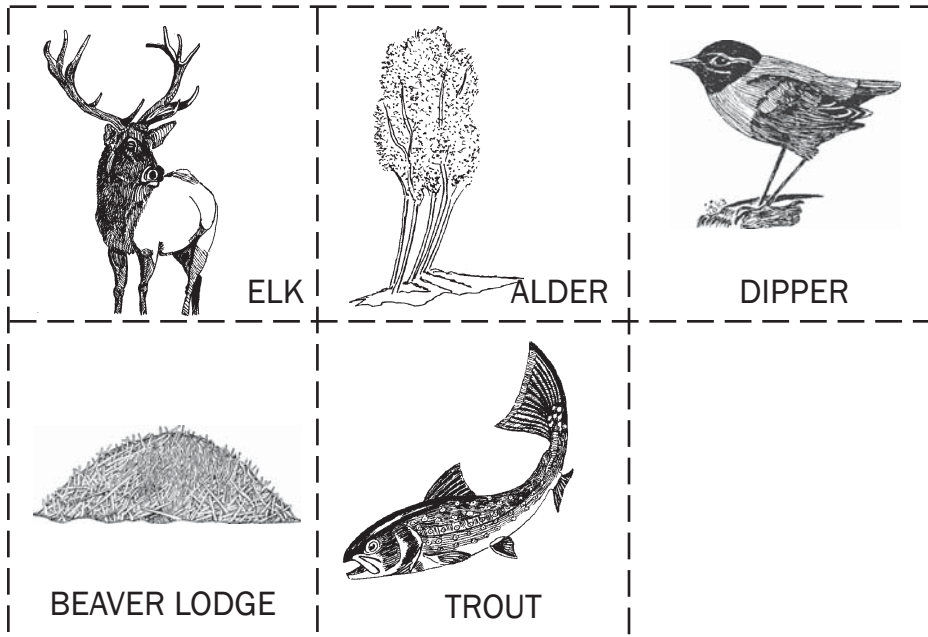
2. Seasonal Adaptations Card: Spring, Summer Fall

 <p>ANT</p>	 <p>GRASSHOPPER</p>	 <p>HUMMINGBIRD</p>	 <p>YELLOW LEAF</p>
 <p>SALT DEPOSIT</p>	 <p>COTTONWOOD LEAF</p>	 <p>ROLLED LEAF</p>	 <p>COTTON</p>
 <p>LIZARD</p>	 <p>DRAGONFLY</p>	 <p>PILLBUG</p>	<p>FREE SQUARE</p>
 <p>TURTLE</p>	 <p>FEATHER</p>	 <p>SPIDER</p>	 <p>AQUATIC INSECT</p>

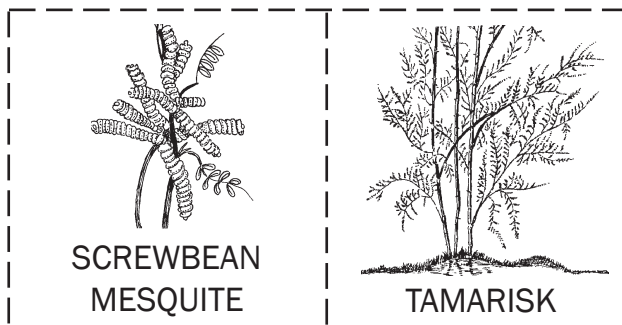


3. Special Adaptations Squares

a. Upper River



b. Lower River



c. Special Seasons

