Hidden Food, Clever Birds

How corvids reach food and find it again

ZOO.9.6 "Describe how corvids use their intellect for problem solving and locating food storage."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB As you read, underline actions corvids take to solve food problems and circle location clues they can use to find stored food.

An Acorn for Later

1. On a dry afternoon, a scrub jay pushes an acorn into soft soil and covers it with leaves. This hidden food is a cache, one of many the bird may make. Days later, the jay can return when fresh food is harder to find. It does not need to search every patch of soil. Instead, it can use spatial memory, a record of where it hid the acorn in relation to nearby features. A large rock and the edge of a shrub can help guide its search. Remembering several locations lets the jay spread out its food rather than guard one pile.

2. Location is not the only problem. Another scrub jay might watch the first bird hide an acorn and later steal it. In studies, scrub jays that have stolen caches themselves are especially likely to move food to a new hiding place after another bird has watched them cache it. Moving the acorn makes the old location less useful to the watcher. The jay must then remember the new location if it wants the food later. This behavior does not mean the bird knows exactly what its rival is thinking. It shows that the bird can change its caching behavior when theft is a risk.

3. Corvids also solve food problems that do not involve buried caches. In the wild, New Caledonian crows make hooked tools from plant material and use them to pull insects and other prey from narrow spaces in wood. A beak alone may not reach that food, but a suitable hook can snag it. This is a different challenge from finding an acorn again. In one case, a bird uses a tool to reach food; in the other, it uses memory of a hiding place and may move food if watched. Both show flexible responses to obstacles between a corvid and its next meal.

2 ANSWER WITH EVIDENCE

Use the passage

1. How can a scrub jay find an acorn it hid days ago without searching every patch of soil?

2. Why might a scrub jay move a cache after another bird watches it hide food, and what new task does moving it create?

3. How does a New Caledonian crow's hooked tool solve a food problem that spatial memory cannot solve?

4. What problem-solving pattern connects the scrub jay's recaching with the crow's tool use?

3 YOUR TURN

Your own words

Invent a different scrub jay caching scene with two landmarks and one obstacle that appears after the food is hidden. In four sentences, explain how the jay uses location clues and changes its actions to recover or protect its food.

ANSWER KEY # Hidden Food, Clever Birds

PART 1 · READ AND MARK

As you read, underline actions corvids take to solve food problems and circle location clues they can use to find stored food. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How can a scrub jay find an acorn it hid days ago without searching every patch of soil?	**It uses spatial memory of the cache's location, guided by features such as a large rock and the edge of a shrub.**
2	Why might a scrub jay move a cache after another bird watches it hide food, and what new task does moving it create?	**Moving the food makes the old hiding place less useful to a bird that might steal it. The jay must remember the new location.**
3	How does a New Caledonian crow's hooked tool solve a food problem that spatial memory cannot solve?	**The hook pulls prey from a narrow space in wood where the crow's beak may not reach. Remembering a location alone would not get the prey out.**
4	What problem-solving pattern connects the scrub jay's recaching with the crow's tool use?	**Both birds change what they do to overcome an obstacle to getting food: the jay reduces a theft risk, while the crow reaches prey in a narrow space.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

A scrub jay buries a seed near a bench and a tall pine tree. Workers move the bench before the jay returns. The jay searches beside the pine tree, using it as a location clue even though the bench is gone. It checks the soil near the tree instead of relying on the missing bench.

For the open task, accept any plausible four-sentence scene with two landmarks, an obstacle that appears after caching, and a clear explanation of how the jay uses a location clue and adjusts its behavior.