

Nature Design Ideas

Students connect outside animal parts to human design problems, then build and test a root-inspired book support.

1-LS1-1 "Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs..."

NAME _____

DATE _____

Teacher: this page is run aloud. The script and answers are on the guide page.

1 NATURE IDEAS _____

a	shell	tail	eyes
b	shell	tail	ears
c	quills	tail	eyes

2 BUILD AND MATCH _____

cover	•	•	quills
notice	•	•	scales
block	•	•	ears

HOW TO RUN THIS PAGE

Read every prompt and choice aloud, pausing for students to mark their answers. Students identify animal parts that could inspire solutions, then use simple materials to design and improve a support for a book. Listen for students connecting an outside part's job to a human problem.

Students never read directions on this sheet. Read each part's script aloud, then each prompt, giving think time before students mark.

PART 1 • NATURE IDEAS

SAY “Listen as I read the problem and the three words in each row. Think about how an outside animal part can help an animal. Circle the word that could inspire a solution.”

ROW	SAY	STUDENTS CIRCLE
a	A bicyclist needs a hard cover to help protect their body. I will read shell, tail, and eyes. Which outside part could inspire this cover? Circle the word.	shell
b	A tall chair keeps wobbling. I will read shell, tail, and ears. Which outside part could inspire a support to help it stay steady? Circle the word.	tail
c	A home needs to notice someone coming near. I will read quills, tail, and eyes. Which outside part could inspire a way to notice? Circle the word.	eyes

PART 2 • BUILD AND MATCH

SAY “Stand a book up. Use one sheet of paper and two paper clips to make a support that spreads from the bottom like plant roots, then gently push the book and change your support if needed. Next, draw lines from each word on the left to the outside animal part on the right that could inspire a solution.”

- **cover** matches **scales**
- **notice** matches **ears**
- **block** matches **quills**

WHAT TO ACCEPT

Circle answers are shell, tail, and eyes. Match cover to scales, notice to ears, and block to quills. Accept a paper-and-paper-clip support that spreads from the book's bottom and is tested, with a revision if the first design does not help the book stay up.