

Teacher Instruction Sheet

EGGS

GRADE LEVEL: 4-8

SUBJECTS: Science; Biology

bird study, animal adaptations, classification, embryology, environment, survival variations, diversity, inherited traits, ecosystems, mineral use, balance in nature, animal families.



SKILLS: observation, classification, prediction, interpretation

OBJECTIVE: Students will learn how bird eggs with different shapes and colors are actual adaptations to their environment. The interior structure inside an egg, and how to predict or classify which species of bird lays which type of eggs.

Part 1

Understanding Eggs

- A. Have students see what they already know about birds by taking **the Pre-test Understanding Eggs** with out the Pre-test answer sheets.
- B. **Review the vocabulary** words at the bottom of the *Pre-Test Understanding Eggs* with the students.
- C. Let students check, fill in, and correct their answers with **Pre-test Answers Sheets 1 & 2 Understanding Eggs**.
- D. Review the worksheets.

Part 2

Egg Structure

- A. Will need worksheets, scissors, plates, eggs (one for each student or one for every 2-4 students), paper towel, and toothpicks or poking devices.
- B. Let students figure out the name to fill in the blanks for **Egg Structure Sheet 1**, by using the **Egg Parts worksheet**.
- C. Let students **check and correct their worksheets with Egg Structure Sheet 2**.
- D. Have students **cut out the white label boxes from their worksheets** to prepare for the next activity.
- E. Explain that the class is about to crack open chicken eggs to observe the different parts of the egg that were just studied. **Demonstrate how to crack open the egg carefully so that the yolk does not break.**
- F. Ask students to **not crack open their eggs until their labels are ready** and they have observed the egg held up to a light and looked for pores on the shell.
- G. **Pass out plates, poking utensil, paper towel, and eggs** to students.
- H. Have students **hold eggs up to the light** and observe any light that passes through.
- I. Have students **observe pores on the shell** and whether they can see more on one end than an other.
- J. Let **students crack open their eggs and label them**. They should be able to easily find the air pocket, germinal disc, chalazae, yolk, and membranes, white or albumen, and shell.
- K. Walk around and check that students have labeled their eggs correctly. For those who have completed theirs correctly the teacher can hand out the poking device to the students so they can poke the Vitelline Membrane to see how it was containing the yolk.

Part 3 (Lesson Enhancement)

Egg Classification Outreach box and or video

Explain why each type of egg belongs to a different species of bird. (Further instructions on video)

Part 4

Post Test/Review

- A. Have students review all their worksheets and take the **Post Test/Review** to see what they have learned.