# Partners for a Species Lab

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Name _____

Date _____

Period _____

**Do Now** This is a drawer in a natural history museum in Sweden. It holds hummingbirds that died many years ago. Each one has a paper tag tied to its leg. 2 minutes, before you open the lab

**A. What do you think is written on each tag?**

☐ What the bird is, and where and when it was found ☐ The price of the bird ☐ The bird's name, like a pet

**B. How could a drawer of dead birds help living birds?**

_____

☐ I can name the four jobs that museums and preserves do.

☐ I can use a model to show why protecting adults matters.

☐ I can use real data to explain how partners work together to sustain biodiversity.

## Part 1. Meet the partners (Tab 1)

**SEP 8 Obtaining, Evaluating and Communicating Information · CCC Systems**

Tap all 8 photos. Read each card, tick every job it does, and press **Check my jobs**. Copy each one from **Your partner log**.

**1.** Your partner log. Put a check in each job the partner does.

| Partner | Protect habitat | Raise and release | Study and collect | Teach and involve |
|---|---|---|---|---|
| **Buffalo Museum of Science** | | | | |
| **Tifft Nature Preserve** | | | | |
| **Reinstein Woods** | | | | |
| **Peggy Notebaert Nature Museum** | | | | |
| **Smithsonian's National Zoo** | | | | |
| **International Crane Foundation** | | | | |
| **Laguna Atascosa Refuge** | | | | |
| **Everglades National Park** | | | | |

**2.** Count the checks. Protect _____ Raise _____ Study _____ Teach _____ The job all 8 partners do: _____

**3.** In the 1970s, the land at Tifft was a _____. Now it does two jobs: _____ and _____.

**READ FIRST.** In the lab, find the green **Learn It** box and read it. Then answer 4 and 5.

**4.** Match each word to what it means. Write the letter.

_____ preserve — **A.** everyday people collecting data for scientists

_____ specimen — **B.** breeding animals in a zoo or center

_____ captive breeding — **C.** land kept safe for nature

_____ citizen science — **D.** studying living things by watching, not experiments

_____ natural history — **E.** a real plant or animal saved with a label

**5.** No partner does all four jobs. Explain how Tifft and the Buffalo Museum of Science work together, like parts of one system.

_____

_____

## Part 2. Save a Blanding's turtle (Tab 2)

**SEP 2 Developing and Using Models · SEP 5 Mathematics · CCC Systems**

Run all six choices: no fence or fence, with 0, 25 or 50 eggs a year. Copy each one from **Your run log**.

**6.** Your run log. Adult females, starting from 50.

| Fence? | Eggs a year | Year 10 | Year 50 |
|---|---|---|---|
| **No fence** | 0 | | |
| **No fence** | 25 | | |
| **No fence** | 50 | | |
| **Fence** | 0 | | |
| **Fence** | 25 | | |
| **Fence** | 50 | | |

**7.** Look at Year 10 in every run. What do you notice about the head-start runs?

_____

**8.** With the road and no help, the group went from 50 to _____.

Adults lost: _____ Percent lost: _____ ÷ 50 × 100 = _____%

**READ FIRST.** In the lab, find the green **Learn It** box and read it. Then answer 9 to 11.

**9.** The town can pay for only one job. Which one leaves more adults at Year 50: the fence with no head-start, or 50 eggs a year with no fence? Use both numbers.

**10.** Model check. What does each part of the model stand for in the real world? Tick one box in each row.

| In the model | In the real world |
|---|---|
| The fence and tunnel | ☐ protect habitat ☐ raise and release ☐ a threat from people |
| The head-start eggs | ☐ protect habitat ☐ raise and release ☐ a threat from people |
| The road | ☐ protect habitat ☐ raise and release ☐ a threat from people |

Name one thing about real turtles that this model leaves out.

**11.** Why does head-starting take more than 10 years to add adults? Use a number from the Learn It.

## Part 3. The crane comeback (Tab 3)

**SEP 4 Analyzing and Interpreting Data · SEP 5 Mathematics · CCC Systems**

Pick all 9 winters. Copy each one from **Your crane log**. Read the dashed lines on the graph.

**12.** Wild whooping cranes, counted each winter.

| Winter | 1941 | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 | 2010 | 2025 |
|---|---|---|---|---|---|---|---|---|---|
| Wild cranes | | | | | | | | | |

**13.** 2025 count ÷ 1941 count: _____ ÷ _____ = about _____ times as many cranes. The first partner on the graph, in 1937, did the job _____.

**READ FIRST.** In the lab, find the green **Learn It** box and read it. Then answer 14 and 15.

**14.** A friend says, "A zoo saved the whooping crane all by itself." Do you agree? Use two different jobs from the Learn It and one number.

## Wrap it up

**SEP 8 Communicating Information · CCC Systems and System Models**

**15.** A museum is making a whooping crane exhibit. Write its caption: 2 or 3 sentences. Use one number from the lab and name one job a partner did.

NYSSLS: building toward HS-ESS3-3 and HS-LS2-7 (DCI ESS3.C, LS4.D). Environmental Science, Special Feature 2: Partners in Sustainability, Nature Museums and Preserves (pp. 196-205). SEP = Science and Engineering Practice, CCC = Crosscutting Concept. Data: Congdon, Dunham and van Loben Sels 1993 (Blanding's turtles); International Crane Foundation and U.S. Fish and Wildlife Service (whooping crane counts).