

# EARTH SCIENCE - LEADER KEY

## SAINTS GLOBAL MEMBER

NAME: \_\_\_\_\_ BATTALION: \_\_\_\_\_ TROOP: \_\_\_\_\_

## SKILL BADGE ADVISOR

NAME: \_\_\_\_\_ EMAIL: \_\_\_\_\_ PHONE: \_\_\_\_\_

LEADER KEY

WITH EVALUATION HINTS

*\*Gold boxes contain leader hints for evaluating each requirement*

## STEP 1 | DISCOVER

INITIALS

- a) Explain what environmental science means in your own words and how science can be used to understand, conserve, and improve the environment. \_\_\_\_\_

♂ LEADER KEY

Look for understanding, not memorized definitions.

- b) Observe an approved ecosystem over two days, noting living, nonliving, and formerly living components and their interactions, including human impact. \_\_\_\_\_

♂ LEADER KEY

Ensure observations are specific and grounded.

## STEP 2 | PLAN

INITIALS

- a) Investigate a local water source, how it is treated and disposed, and review a community water quality report. \_\_\_\_\_

♂ LEADER KEY

Verify accuracy of the water source information.

- b) Research air pollution impacts by either comparing transportation modes or studying the Clean Air Act and its outcomes. \_\_\_\_\_

♂ LEADER KEY

Ensure discussion is factual and balanced.

STEP 3 | ACT

INITIALS

a) Research and present on a rare, threatened, or recovered species, including habitat, status, and conservation efforts. \_\_\_\_\_

♂ LEADER KEY  
Look for accuracy and clarity.

a.1) Prepare a 100-word written report \_\_\_\_\_

a.2) Include a drawing or photo \_\_\_\_\_

a.3) Present findings to a group \_\_\_\_\_

a.4) Explain why conservation actions matter \_\_\_\_\_

b) Complete one hands-on conservation or pollution-prevention activity such as resource conservation, recycling documentation, hazardous waste identification, or pollination study. \_\_\_\_\_

♂ LEADER KEY  
Ensure action goes beyond discussion.

b.1) Choose one approved option \_\_\_\_\_

b.2) Collect evidence or observations \_\_\_\_\_

b.3) Explain environmental benefit \_\_\_\_\_

b.4) Discuss possible improvements \_\_\_\_\_

c) Investigate two invasive species in your area, explaining origin, spread, impact, and control methods. \_\_\_\_\_

♂ LEADER KEY  
Check for understanding of ecological impact.

d) Conduct an experiment to test for particulate matter (PM) contributing to air pollution and explain findings. \_\_\_\_\_

♂ LEADER KEY  
Ensure safety and scientific reasoning.

- e) Evaluate the environmental impacts of a proposed construction project, including purpose, alternatives, and consequences. \_\_\_\_\_

 LEADER KEY

Look for structured reasoning.

## STEP 4 | REFLECT

INITIALS

- a) Identify three environmental or earth science careers and explain the training and preparation for one. \_\_\_\_\_

 LEADER KEY

Ensure pathways are realistic.

## END OF REQUIREMENTS

**BY SIGNING BELOW, I CERTIFY TO THE BEST OF MY KNOWLEDGE THAT ALL REQUIREMENTS WERE MET AT OR ABOVE THE REQUIRED STANDARDS AS OUTLINED IN THE BADGE REQUIREMENTS CHECKLIST.**

\_\_\_\_\_  
SKILL BADGE ADVISOR

\_\_\_\_\_  
DATE (YYYY-MM-DD)