

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.

Continue to next page for certification signature

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)