

SAINTS GLOBAL

LEADER GUIDE

SURVEYING

INTELLECTUAL CORE

Version 2026.1





PURPOSE & IDENTITY

SKILL BADGE PURPOSE

To develop precision, discipline, and applied problem-solving through hands-on land surveying, measurement, mapping, and ethical understanding of property, technology, and professional responsibility.

DEVELOPMENT CORE: INTELLECTUAL

This badge develops intellectual attributes through focused activities and reflection. Saints will grow in this area while building practical skills.

CORE FOCUSES

- Field safety and environmental awareness
- Measurement accuracy and instrument handling
- Mapping, plotting, and spatial reasoning
- Use and limits of GPS and emerging technology
- Professional ethics, property rights, and career awareness

TIME COMMITMENT

4-6 weeks (suggested)

RECOMMENDED AGE

13+



SAFETY CONSIDERATIONS



FIELD SAFETY

Surveying activities must account for terrain, weather, wildlife, traffic, and tool hazards; proper clothing, hydration, and situational awareness are required.



ENVIRONMENTAL HAZARDS

Saints must be able to identify local poisonous plants and animals and take precautions against insects, snakes, heat, cold, and dehydration.

EMERGENCY CONTACTS

Troopmaster: _____

Emergency: _____



THE DPAR METHOD

Saints Global uses the DPAR method for skill badge completion. As a leader, you should practice DPAR yourself when preparing to teach.

D

DISCOVER

Learn foundational knowledge and concepts. Research, study, and explore the topic.

YOUR ROLE AS LEADER:

- Immerse yourself in the material before teaching
- Study each requirement—understand what AND why
- Anticipate questions saints might ask

P

PLAN

Create a personal action plan with goals and timeline.

YOUR ROLE AS LEADER:

- Design your teaching approach for each requirement
- Gather materials and prepare discussion questions
- Consider how to adapt for different learning styles

A

ACT

Execute through hands-on practice with leader guidance.

YOUR ROLE AS LEADER:

- Shift from teacher to guide—step back
- Create safe space for practice and mistakes
- Model the skills yourself when helpful

R

REFLECT

Review what was learned and share experiences gained.

YOUR ROLE AS LEADER:

- Facilitate meaningful conversations
- Ask open-ended questions, listen more than speak
- Celebrate growth and help saints see their progress



STEP 1: DISCOVER

LEADER PREPARATION

- ☐ Review all DISCOVER requirements thoroughly
- ☐ Gather necessary resources and materials
- ☐ Prepare discussion questions and activities
- ☐ Identify potential challenges saints may face

STEP 1: DISCOVER — TEACHING GUIDE

Requirement 1a: Demonstrate first aid responses for injuries and conditions that could occur while surveying, and explain why surveyors must identify local poisonous plants and animals.

HOW TO TEACH

- Use field scenarios (brush cuts, heat stress, snake habitat) to prompt responses
- Have Saints demonstrate treatment steps with a first-aid kit
- Discuss escalation points requiring adult or emergency help
- Connect environmental knowledge to professional responsibility

Completion: Saint demonstrates correct first aid and explains the importance of hazard identification.



STEP 2: PLAN

LEADER PREPARATION

- ☐ Review all PLAN requirements thoroughly
- ☐ Gather necessary resources and materials
- ☐ Prepare discussion questions and activities
- ☐ Identify potential challenges saints may face

STEP 2: PLAN — TEACHING GUIDE

Requirement 2a: Set up a surveying instrument on a designated corner point and plan a radial measurement survey of a five-sided lot.

HOW TO TEACH

- Demonstrate correct instrument setup and leveling
- Explain reference selection and angle measurement planning
- Review note-taking standards before measurement begins
- Emphasize accuracy over speed

Completion: Instrument is set correctly and the survey plan is explained clearly.



STEP 3: ACT

LEADER PREPARATION

- ☐ Review all ACT requirements thoroughly
- ☐ Gather necessary resources and materials
- ☐ Prepare discussion questions and activities
- ☐ Identify potential challenges saints may face

STEP 3: ACT — TEACHING GUIDE

Requirement 3a: Conduct a radial survey of a five-sided lot and nearby topographic features using traditional instruments.

HOW TO TEACH

- Observe instrument handling and reading technique
- Check field notes for clarity and consistency
- Ask Saints to explain each measurement as it is taken
- Reinforce redundancy checks

Completion: Field notes are complete, legible, and accurate.

Requirement 3b: Measure the same points using GPS technology and compare results to traditional measurements.

HOW TO TEACH

- Discuss GPS accuracy limits and signal factors
- Have Saints calculate and interpret differences
- Emphasize complementary use of technologies
- Avoid treating GPS as infallible

Completion: Saint compares measurements and explains differences accurately.

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STEP 3: ACT — TEACHING GUIDE (CONTINUED)**Requirement 3c: Plot collected field data and produce a scaled map of the surveyed lot.****HOW TO TEACH**

- Demonstrate one plotted example before independent work
- Check scaling before finalizing the map
- Discuss why neatness matters professionally
- Require explanation of plotting choices

Completion: Map is accurate, complete, and neatly drawn.

Requirement 3d: Establish elevations using a benchmark and leveling equipment.**HOW TO TEACH**

- Explain leveling sequence before measurements
- Require Saints to verbalize calculations
- Check arithmetic and logic
- Discuss real-world uses of elevation data

Completion: Elevations are calculated correctly from recorded data.

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STEP 3: ACT — TEACHING GUIDE (CONTINUED)**Requirement 3e: Obtain and explain the key parts of a property deed and why they matter.****HOW TO TEACH**

- Review a real deed and identify its sections
- Discuss legal descriptions and boundaries
- Explain how surveys protect property rights
- Connect documentation to public trust

Completion: Saint explains deed components and their importance.



STEP 4: REFLECT

LEADER PREPARATION

- ☐ Review all REFLECT requirements thoroughly
- ☐ Gather necessary resources and materials
- ☐ Prepare discussion questions and activities
- ☐ Identify potential challenges saints may face

STEP 4: REFLECT — TEACHING GUIDE

Requirement 4a: Explain how GPS, drones, laser scanning, and other emerging technologies are changing surveying, including strengths and limitations.

HOW TO TEACH

- Compare traditional and modern methods
- Discuss cost, accuracy, and access trade-offs
- Explore where human judgment remains essential
- Encourage curiosity without overreliance on tech

Completion: Saint explains emerging technologies with clear pros and cons.

Requirement 4b: Describe the importance of licensed surveyors, types of surveying, and career pathways in surveying and related fields.

HOW TO TEACH

- Discuss responsibility and liability in surveying
- Identify surveying applications in other industries
- Review education and licensing requirements
- Ask Saints to reflect on interest and aptitude

Completion: Saint explains professional roles and career preparation accurately.



RESOURCES & CONTACT

RECOMMENDED RESOURCES

- Saints Global Resource Library — Online materials and guides
- DPAR Method Quick Reference — Printable guide for leaders
- Child and Youth Program Guidebook — LDS Church Official Documentation for Children and Youth
- For the Strength of Youth — A Guide for Making Choices

SAINTS GLOBAL CONTACT INFORMATION

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Thank you for leading Saints Global!

Your dedication makes a difference in the lives of our children and youth.