

APPLIED SCIENCE THROUGH EXPLORATION: USING TECHNOLOGY TO ENHANCE LEARNING IN THE RAINFOREST

With years of successful partnership, Holbrook Travel and Pasco Scientific have collaborated to promote inquiry-based learning through the use of PASCO's SPARK Science Learning System in Costa Rica. The SPARK Science Learning System is an all-in-one mobile device that integrates the power of probeware with inquiry-based content and assessment. The SPARK's data collection and analysis capabilities are easy-to-use so the focus remains on learning science.



Teachers and students have the opportunity to:

- Participate in real-time data collection using environmental sensors

- Compare unique biological features at home and abroad

- Expand world perspectives

- Understand environmental and community needs

- Engage in active problem solving

- Contribute to authentic scientific research

- Promote conservation through awareness



Before traveling, educators receive:

- One complimentary SPARK Science Learning System

- Environmental sensors to measure pH, light level, sound level, temperature, voltage

- Specialized, field-based curriculum pre-loaded on the SPARK

- Detailed instructions on how to get started

- Tutorial resources including pre and post trip activities connecting your location to the tropical rainforest



The in-country SPARK Science Mobile Lab includes:

- Complete set of SPARK Science Learning Systems

- Water quality testing sensors

- Weather sensors

- Carbon dioxide and oxygen gas sensors

- Light sensors (visible, infrared, ultraviolet)

- GPS sensors

- Soil analysis sensors

- Charging station

PARTICIPATION IS EASY

1. Before an educational expedition to Costa Rica, educators can request the SPARK Science kits by speaking with their travel consultant at Holbrook Travel.
2. Complete usage agreement.
3. While recruiting students, work

with consultants from PASCO and Holbrook Travel to determine teaching priorities and to pre-select loaner technology to use in-country.

4. Receive SPARK Science Learning System Leader Kit and become familiar with the

equipment through online tutorials and data collection with students.

5. Upon arrival in Costa Rica, receive the SPARK Science Mobile Lab and begin field studies. Return loaner materials before departure.

6. Return home and integrate field data in the classroom.