



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

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



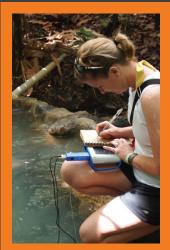
One complimentary SPARK Science Learning System

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

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 preselect 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.