



With the support of ITEN Seed Grants, the **University of South Florida** (USA) and **Sam Sharpe Teachers' College** (Jamaica) are developing a resource kit for teaching STEM through inquiry.

One element of this resource kit includes a series of **video lessons and tutorials** that cover a wide range of physical science topics relevant to standards both in the USA and Jamaica, and that make use of easily-accessible materials.

Videos include demonstrations on the Bernoulli effect, Earth/Moon scale, simple circuits, series/parallel circuits, water bottle music, and palm pipes, with many more under construction, for a total of about 50 videos created by each institution.



Question



Student Explanation



Teacher Explanation



Sample Lesson

Unlike simple recordings of demonstrations, these videos explain how to use the demonstrations to elicit student curiosity, reveal student thinking, provide scaffolds to support student understanding, and integrate the demonstration into a full lesson plan.



Visit the site!

Beyond the video demonstrations, get access to resources on:

- Pedagogy (Inquiry Basics, Engineering by Design, Investigative Science Learning Environment)
- Digital Teaching Tools
- Standards
- Grants

What is Inquiry

There are many different ways people define inquiry. This is a position statement from the National Science Education Standards when asked what is Inquiry?:
"The diverse ways in which scientists study the natural world and propose explanations based on the evidence derived from their work. Scientific inquiry also refers to the activities through which students develop knowledge and understanding of scientific ideas, as well as an understanding of how scientists study the natural world."

Click on [Pedagogical Strategies](#) for more info!



From 16 October to 4 December 2021, both institutions are hosting a joint workshop for their teachers, **"Science Inquiry from Jamaica to Florida"**.

OASITEN
INTER-AMERICAN TEACHER EDUCATION NETWORK

Science Inquiry

From
Jamaica to Florida

Virtual Workshop

October 16th, 2021

PRESENTERS

USF Team
David Rosengrant - University of South Florida
Jessica Strauss - Plant High School-Tampa, FL

Sam Sharp
Dianne Bowen
Dian Clarke - Bogue Hill Primary School-Jamaica

Thanks for being early!

- Tell us your name and school in the chat and attach your country's flag to indicate where you are from.
- Say 'Hello' to a participant from another country and or school.

The purpose of this workshop is to have teachers learn about various forms of Inquiry (5E, Investigative Science Learning Environment, and Engineering by Design). Teams were formed with teachers from each country, allowing them to implement the activity in their own class, then share out how it went with their international colleagues.

5 E Instructional Model

Dianne Bowen

A constructivist model of learning. It includes five stages: *engage, explore, explain, extend/elaborate, & evaluate*.

Each stage details the ideas, concepts, and skills needed for student inquiry. There are expected behaviors for teachers and students, as well as opportunities to demonstrate learning through application.

It provides multiple opportunities for assessment and differentiation.

It enhances inquiry, critical thinking, creativity and collaboration and facilitates conceptual understanding.

26

teachers participated in this workshop, with about half from each country.

Engineering Design Process

ASK
Define the problem.

IMAGINE
Generate ideas.

PLAN
Select a solution.

CREATE
Make the

IMPROVE
Make needed changes.

SHARE
Present the results.

QUEST
Creativity, Collaboration, Critical Thinking

We want our educators to understand how inquiry is taught in other countries so that they can appreciate how challenges and opportunities are handled elsewhere. It really gives our teachers a chance to address culturally responsive strategies if they are interacting with other cultures."

- Dr. David Rosengrant, Professor of STEM Education and Interim Director of Education, University of South Florida St. Petersburg Campus