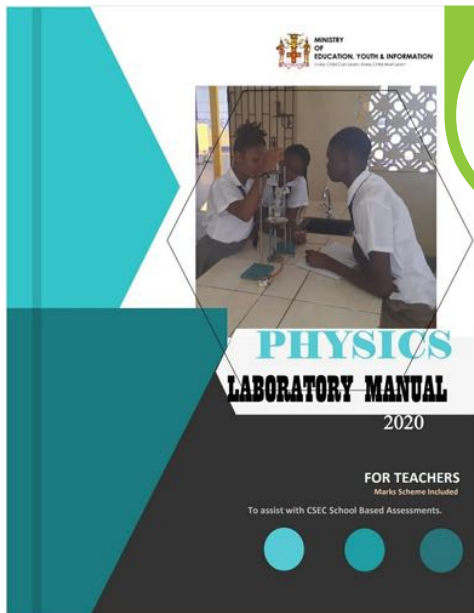


On January 14, 2021, **ITEN Teacher Fellow Mikhael Davis** led the first session of a 16-week course, "Improving Lab Activities for Grades Ten and Eleven," a component of his 2020-2021 leadership plan.



13

teachers, including new and experienced physics teachers (with 3 to 26 years of experience), are participating in this professional development activity, which is based on a *Physics Lab Manual for Teachers* developed by Mikhael.

This course, offered by Mikhael with the support of the Jamaica Ministry of Youth, Education and Information, aims to address the following concerns of teachers:

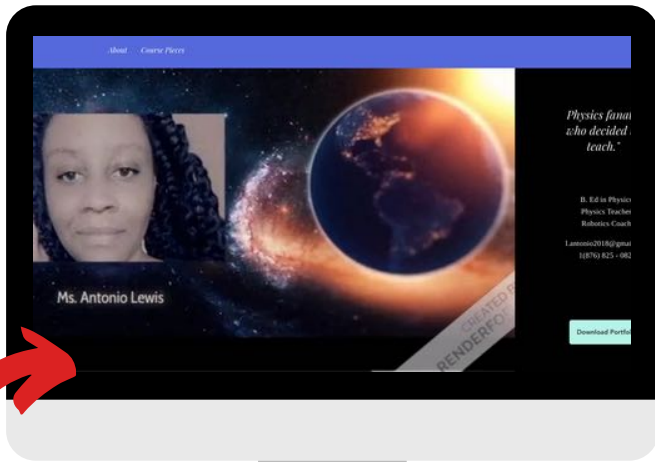
"IMPROVING LABORATORY ACTIVITIES IN GRADES TEN AND ELEVEN"

- **Unit I:** *Perspectives in science education*
- **Unit II:** *Why teach science through practical work?*
- **Unit III:** *Student understanding*
- **Unit IV:** *Teaching science through practical work: developing critical thinking skills*
- **Unit V:** *Evaluation and evaluation of practical school evaluation activities*
- **Unit VI:** *Incorporation of STEM in practical work*
- **Unit VII:** *Promotion of improvisation to compensate for the lack of resources where necessary in the educational system*

- **There is no standard lab manual for teachers to use in all schools.** Teachers sometimes have a hard time finding suitable activities to properly assess students at the highest level.
- **There are no specialized courses in teacher training institutions for physics teachers**, which can leave teachers unaware of how to plan, manage or evaluate laboratory activities effectively. (Teachers often take years to understand the fundamentals of the format adopted, the criteria for the skills tested, etc.)
- **There is usually no strong integration of STE (A) M practices into instructional activities.**
- **Teachers often find grading systems inefficient**, particularly for the final presentation of student work for evaluation.

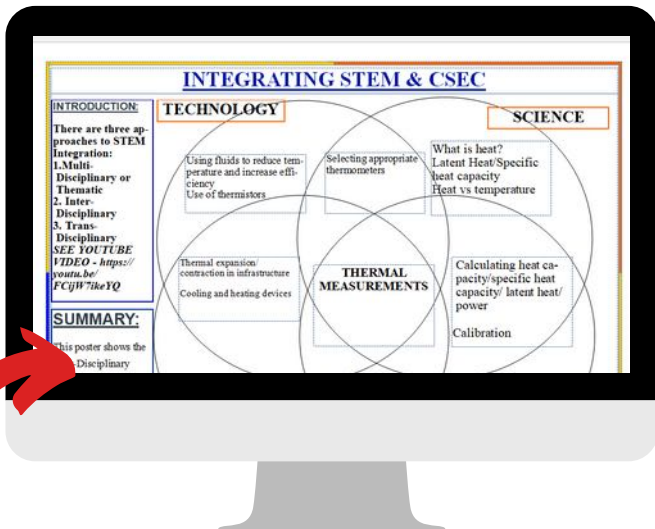


Mikhael's leadership plan provides an informal avenue for Physics teachers to collaborate.



See here the portfolio of **Ms. Antonio Lewis**, one of the course participants.
















Antonio Lewis is a secondary educator with a focus on physics. On rare occasions, she is known to dabble in chemistry. She is currently employed at the Ruseas High where she has imbedded herself in the Science Club. It's a long-term goal of hers to have her science students see robotics and programming as viable career options in physics.



See here the portfolio of **Ms. Therese d'Aguilar**, another of the course participants.

As part of the 6th unit in this task force's work, Therese d'Aguilar created various maps showing how fundamental physics ideas connect to STEM.

Physics teachers involved in this process include the following:

		Milton Hayles
Trudy Ann Gordon		
		Waylon Thompson
Mawita Beckford		
		Therese d'Aguilar
Krisanna Orr		
		Cecil Wade
O'ren Gooden		
		Davion Williams JP
Sashell Moore		
		Antonio Lewis
Shanna-Kay Wood-Davidson		
		Olivia Fennell
		Led by
		Mikhael Davis
		with support from Sadpha Bennett

The successful course offered for physics teachers at the beginning of the year will now be modified for the training of the biology, chemistry, and integrated science facilitators.

In addition, a **platform**, currently being tested by peers, will be open for educators **to share physics laboratory practical activities for grades 7-13**.

He also envisions compiling a **Physics Laboratory Manual** for teachers of grades 10 and 11, based on the Caribbean Examination Council syllabus and **modifying Science Clubs in the secondary schools to STEM Club**.

Community-building and improving the quality of science education in Jamaica is the goal!



Team Biology



Team Physics



Team Chemistry

