PAVO

PROFESSIONAL LEARNING SESSION
In the PAVO Professional Learning series, teachers will receive a well-rounded understanding of how to use PAVO and implement it in the classroom.

Teachers will walk away with new knowledge of how to align content standards with hands-on inquiry, how to take existing Flinn labs and differentiate for their classroom, how to create a unit lesson plan that embeds integral activities, how to implement 3-dimensional learning, then steps to take when a student needs remediation.

There are 2 options available:

**FULL DAY TRAINING**

*7 Hour Session, including a 1 hour lunch*
- Introduction to PAVO
- Align content standards with hands-on inquiry
- Create a well-rounded scaffolded unit
- Teach students with differentiated instruction:
  - Implement 3-dimensional learning assessments:
  - Reach the students who did not get it:
- Closing Tips & Tricks

**HALF DAY TRAINING**

*3 Hour Session*
- Introduction to PAVO
- Align content standards with hands-on inquiry
- Create a well-rounded scaffolded unit
- Choose One Focus:
  - Teach students with differentiated instruction:
  - Implement 3-dimensional learning assessments:
  - Reach the students who did not get it:
- Closing Tips & Tricks
Full Day Professional Learning Outline
7 Hours Total, including 1 hour lunch

Introduction to PAVO:
- Review the key features of PAVO. Answer any questions about the benefits or functionalities of PAVO prior to beginning professional learning.
- This allows teachers an opportunity to ask any additional questions they have after going through the initial free product training session to ensure full understanding of platform functionalities.

Align content standards with hands-on inquiry:
- Learn how to break down content standards, then align those standards to hands-on inquiry for highest student learning.

Hands-on inquiry is essential for students to learn content and have it stick. Hands-on inquiry paired with specified standard alignment creates higher levels of understanding. Teachers leave with the tools to introduce and solidify their specific content standards using labs, activities, and digital solutions.

Create a well-rounded scaffolded unit:
- Take units of content and create a scaffolded series of lessons. Teachers will design the scaffolded series of lessons to keep student engagement, implement hands-on inquiry, and relate content to real-world experiences for the highest levels of student understanding.
- Dive into a variety of easy to implement classroom activities and structures. This includes structures such as lab group roles, lab notebook elevations, analysis discussions, classroom structures, and more.

When a teacher is creating a scaffolded unit, they try their absolute best to meet all standards. Using existing testing data, we will dive into “relevance vs. rigor.” Teachers will be equipped with ways to determine which standards need to be taught at a more rigorous level versus others based on testing data.

Teach students with differentiated instruction:
- Explore the what, how, when, and why of differentiation.
- Select labs and activities that align to the current curriculum, and then demonstrate how to differentiate for different groups of students, leading to greater student “buy in.”

Learning is more effective when the instruction applies to a student’s needs, interests, and abilities. Differentiating instruction is proven to reduce risk of student underachievement, decrease discipline problems, and increase motivation.
Implement 3-dimensional learning assessments:

- Take existing assessments and adjust to fit the 3-dimensional learning assessment model by NGSS.

Assessments are tools that demonstrate a student’s proficiency in understanding. The best assessment evaluates based on the 3-dimensional learning model: practices, crosscutting concepts, and disciplinary core ideas. By assessing students in this manner, students are best evaluated on their proficiency in science. After a teacher assesses the students, we can then dive into any misconceptions and areas of improvement.

Reach the students who did not get it:

- Explore student progress trackers in PAVO
- Learn how to use PAVO to provide tutorials in a more time efficient manner, use flipped remediation, incorporate student reflections, implement in class remediation activities, and more.

In every lesson there are students who sometimes do not understand the material. We will evaluate methods to reach these students. How can we best identify struggling students then follow up to bring them to the expectation of the unit?

Closing Tips & Tricks
Half Day Professional Learning Outline
3 Hours Total

Introduction to PAVO:
- We will review the key features of PAVO. Answer any questions about the benefits or functionalities of PAVO prior to beginning professional learning.

This allows teachers an opportunity to ask any additional questions they have after going through the initial free product training session to ensure full understanding of platform functionalities.

Align content standards with hands-on inquiry:
- Learn how to break down content standards, then align those standards to hands-on inquiry for highest student learning.

Hands-on inquiry is essential for students to learn content and have it stick. Hands-on inquiry paired with specific standard alignment creates higher levels of understanding. Teachers leave with the tools to introduce and solidify their specific content standards using labs, activities, and digital solutions.

Create a well-rounded scaffolded unit:
- Take units of content and create a scaffolded series of lessons. Teachers will design the scaffolded series of lessons to keep student engagement, implement hands-on inquiry, and relate content to real world experiences for highest levels of student understanding.

- Dive into a variety of easy to implement classroom activities and structures. This includes structures such as lab group roles, lab notebook elevations, analysis discussions, classroom structures, and more.

- When a teacher is creating a scaffolded unit, they try their absolute best to meet all standards. Using existing testing data, we will dive into “relevance vs. rigor”. Teachers will be equipped with ways to determine which standards need to be taught at a more rigorous level versus others based on testing data.

Choose from one of three professional learning options below:

1. Teach students with differentiated instruction:
   - Explore the whats, hows, whens, and whys of differentiation.

   - Select labs and activities that align to the current curriculum, and then demonstrate how to differentiate for different groups of students, leading to greater student “buy in.”

   - Learning is more effective when the instruction applies to a student’s needs, interests, and abilities. Differentiating instruction is proven to reduce risk of student underachievement, decrease discipline problems, and increase motivation.
2. **Implement 3-dimensional learning assessments:**
   - Take existing assessments and adjust to fit the 3-dimensional learning assessment model by NGSS.

Assessments are tools that demonstrate a student’s proficiency in understanding. The best assessment evaluates based on the 3-dimensional learning model: practices, crosscutting concepts, and disciplinary core ideas. By assessing students in this manner, students are best evaluated on their proficiency in science. After a teacher assesses the students, we can then dive into any misconceptions and areas of improvement.

3. **Reach the students who did not get it:**
   - Explore student progress trackers in PAVO
   - Learn how to use PAVO to provide tutorials in a more time efficient manner, use flipped remediation, incorporate student reflections, implement in class remediation activities, and more.

In every lesson there are students who sometimes do not understand the material. We will evaluate methods to reach these students. How can we best identify struggling students then follow up to bring them to the expectation of the unit?

**Closing Tips & Tricks**