Math Instructional Design Models for Teachers

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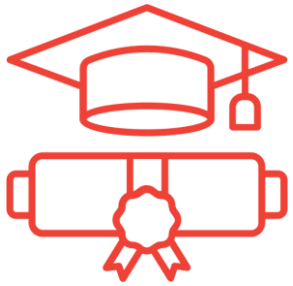
The mission of Fayette County Public Schools is to create a collaborative community that ensures all students achieve at high levels and graduate prepared to excel in a global society.

Strategic Priorities



STUDENT ACHIEVEMENT

Improve student achievement through rigorous curriculum and instruction providing students with evidence-based educational experiences that not only engage but also excite, prepare, and support students.

DIVERSITY, EQUITY, INCLUSION, AND BELONGING

Foster and instill a culture of diversity, equity, inclusion, and belonging across the district and address opportunity gaps.

HIGHLY EFFECTIVE, CULTURALLY RESPONSIVE WORKFORCE

Hire, support, and retain a highly effective, culturally responsive and diverse workforce.

OUTREACH AND ENGAGEMENT

Effectively engage students, employees, families, and community members to improve opportunities and outcomes for all students.

ORGANIZATIONAL HEALTH AND EFFECTIVENESS

Foster a culture of continuous improvement to maximize organizational effectiveness and efficiency, support the well-being of our team members, and provide formal recognition of their efforts.

Alignment to Focus Area 3

Accelerated Learning: All schools will develop and implement standards-based instruction to accelerate learning.

- ***Understand the district-developed frameworks and instructional design models.***
- Leverage the PLC process to plan grade appropriate and cognitively engaging instruction.
- Learn strategies for differentiation.
- Develop an understanding of culturally responsive teaching.
- Understand how to implement the initial components of a systems approach to continuous improvement.

Professional Learning Norms

Establish a safe environment where every person and their ideas are respected.

Creating a space where individuals feel comfortable expressing their thoughts and opinions without fear of judgment or ridicule promotes a culture of inclusivity, open-mindedness, and mutual respect, fostering collaborative discussions and encouraging diverse perspectives to be heard and valued.

Be present and engaged.

Be present and engaged by being mentally and physically attentive, avoiding distractions, and actively participating in discussions.

Put Ideas on the Table

Ideas are the heart of a meaningful dialogue. Label the intention of your comments. For example, you might say, “Here is one idea . . . ” or “One thought I have is . . . ” or “Here is a possible approach . . . ”

Presume positive intentions

Assuming that others’ intentions are positive promotes and facilitates meaningful dialogue and eliminates unintentional putdowns. Using positive intentions in your speech is one manifestation of this norm.

Solve this problem… you may work with a partner.

3 eighths of x is 27.

What is: $x + \frac{3}{8} x$?

- How did you solve? Share your strategy at your table.
- What could make it easier?
- How do you feel?

Now try this problem…

again, you may work with a partner.

Han Solo checked his laser gun. Only three eighths of the energy pack was left. That is enough for 27 shots. Luke Skywalker threw him another fully charged pack. How many shots did Han have left then?

- How did you solve this time?
- Share your strategy at your table.
- What did you notice?
- What do you wonder?

Did you solve it like this?

- What strategies did this student use?
- Did it make sense to you?
- What else did you notice?

Visible Learning

Learning Intention:

We are learning about the purpose of Instructional Design Models (IDM) for math.

Success Criteria:

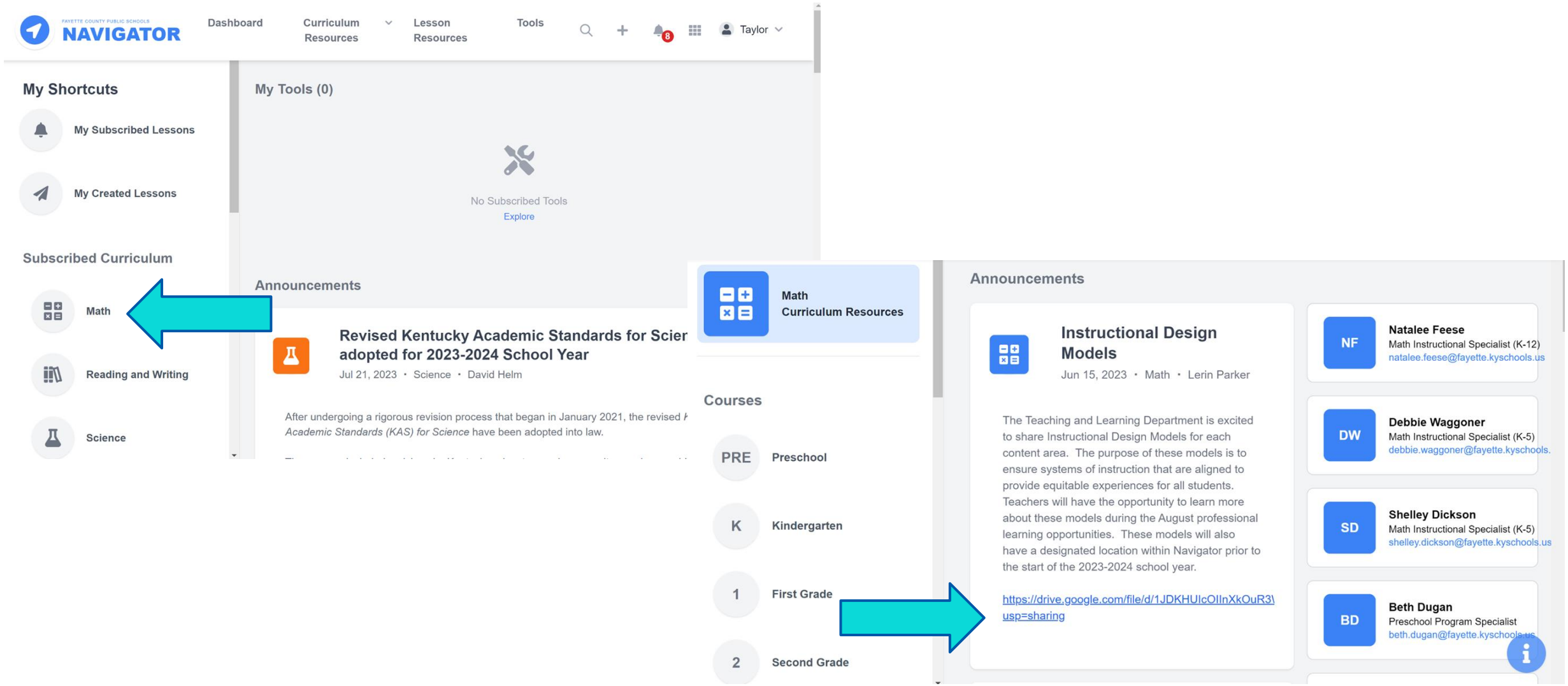
- I can explain the purpose of Instructional Design Models for math.
- I can describe how I could effectively implement an IDM into my math instruction.

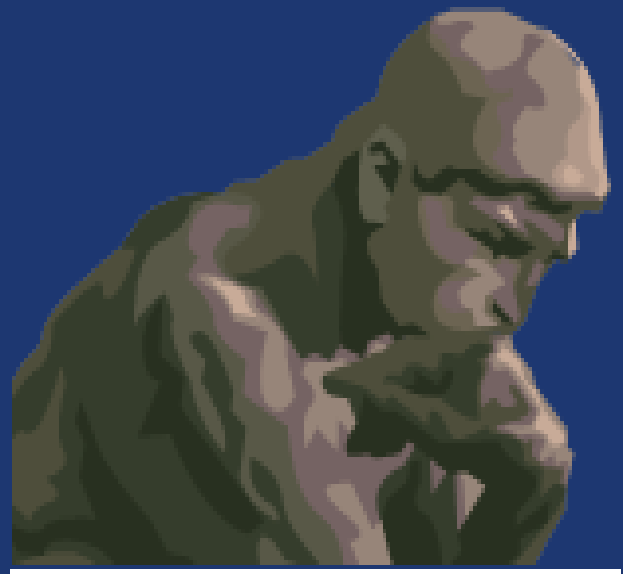
What is an FCPS Instructional Design Model (IDM)?

IDMs are structures that…

- Support the acquisition and application of knowledge and skills
- Consider how students learn
- Outline effective ways in which educators deliver information to students
- Provide time allocation options for each content area
- Help teachers in reaching the rigor of the standard and the needs of students
- Ensures students are exposed to standards in several ways
  - Explicit Tier I instruction
  - Intentional, independent practice
  - Collaboration and other 21st century skills
  - Whole group
  - Small group

Where can I find the Instructional Design Models?





My current state…

Topic: Instructional Design Models

What does instruction look like in your school in mathematics?

Think about your master schedule. How much time do you have dedicated to your math block?

Record your thinking on the top half of the *Reflection Handout.*

Instructional Design Models

1. Each member selects a different IDM.
2. Then…
   a. read the corresponding IDM handout.
   b. use the Knew, New, Q reading strategy and a pencil or highlighter to code the text.
3. Feel free to explore more than one IDM if time allows.

Knew, New, Q

This is a text coding strategy aimed at helping readers identify information that is new, known, or confusing. Use the codes below to make notes in the margins as you read.

✓ - I *knew* that!

! - This is *new* information!

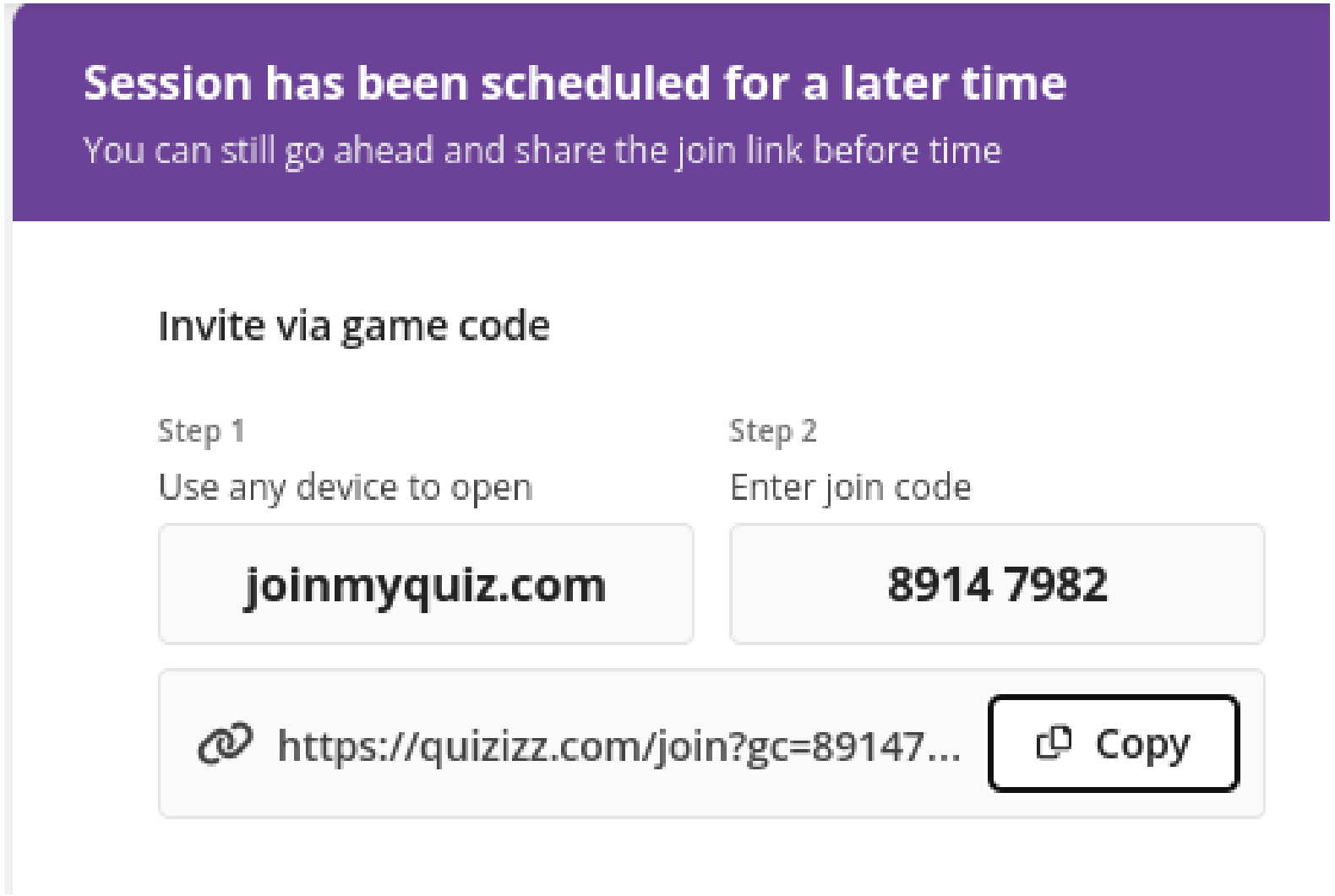
? - I have a *question*!

Collaborative Discussion and Planning

With your group, discuss…

- Compare your current mathematics instruction to each of the IDMs.
- How are they alike and different?
- Which one would be most effective for you to implement into your current math practices?

IDM Math Poll - Quizziz



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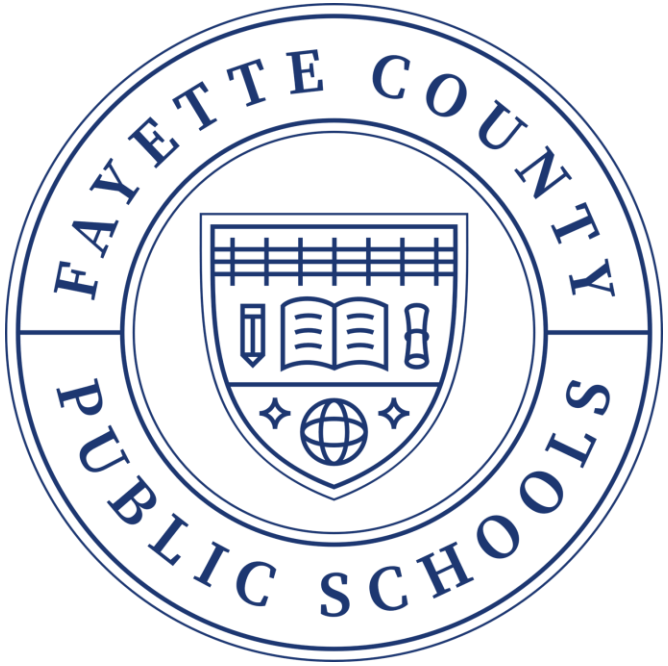

Thank you!

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