**Planning Commentary** **Thinking Organizers and Helpful Hints (Secondary Mathematics Version)**

***Please note: The purpose of this thinking organizer is to help you gather and organize your thoughts in preparation for writing your planning commentary. You will still need to write your answers in paragraph form in the official edTPA planning commentary template.***

**1. Central Focus (Rubric 1)**

1. Describe the central focus and purpose for the content you will teach in the learning segment.

Sentence starters:

The central focus of this learning segment is …

I am teaching this content because…

b. Given the central focus, describe how the standards and learning objectives within your learning segment address conceptual understanding, procedural fluency, **AND** mathematical reasoning and/or problem solving skills

Organize your response:

|  |  |  |
| --- | --- | --- |
| Identify the Standard or Learning Objective | Identify if it is connected to conceptual understanding, procedural fluency, mathematical reasoning or problem solving skills. | Explain how these are connected. |
|  |  |  |
|  |  |  |
|  |  |  |

**c.** Explain how your plans build on each other to help students **make connections between concepts,** computations/procedures,AND mathematical reasoning or problem-solving skills to build understanding of mathematics.

Organize your response:

|  |  |  |  |
| --- | --- | --- | --- |
| Identify the concept, computation/procedure, mathematical reasoning or problem-solving skill being addressed | How is this addressed in  Lesson 1? | Explain how Lesson 2 builds on Lesson 1 | Explain how Lesson 3 builds on Lesson 2 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Identify the concept, computation/procedure, mathematical reasoning or problem-solving skill being addressed | Explain how Lesson 4 builds on Lesson 3 | Explain how Lesson 5 builds on Lesson 4 |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**2. Knowledge of Students to Inform Teaching (Rubrics 2 and 3)**

For each of the prompts below (2a–c), describe what you know about **your** students **with respect to the central focus** of the learning segment.

Consider the variety of learners in your class who may require different strategies/support (e.g., students with IEPs, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students)

a. Prior academic learning and prerequisite skills related to the central focus—**Cite evidence of what students know, what they can do, and what they are still learning to do.**

Organize your response:

|  |  |  |  |
| --- | --- | --- | --- |
| Students | Related content already learned | Related skills students already have | What the students are learning to do related to the learning segment |
| Class as a whole |  |  |  |
| Students with IEPs |  |  |  |
| Students with 504 plans |  |  |  |
| Other groups of learners |  |  |  |

b. Personal/cultural/community assets related to the central focus**—What do you know about your students’ everyday experiences, cultural and language backgrounds and practices, and interests?**

Organize your response:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Students | Students’ everyday experiences related to the learning segment | Students’ cultural and language backgrounds related to the learning segment | Students’ cultural and language practices related to the learning segment | Students’ interests related to the learning segment |
| Class as a whole |  |  |  |  |
| Students with IEPs |  |  |  |  |
| Students with 504 plans |  |  |  |  |
| Other groups of learners |  |  |  |  |

Notes: Stay positive – discuss your students’ assets

Keep the learning segment in mind – only discuss student assets related to the learning segment

c. Mathematical dispositions—What do you know about the extent to which your students

* perceive mathematics as “sensible, useful, and worthwhile”[[1]](#footnote-1)
* persist in applying mathematics to solve problems
* believe in their ability to learn mathematics

Organize your answer:

|  |  |
| --- | --- |
| Mathematical Disposition | Describe your students in light of this disposition |
| Perception of mathematics as “sensible, useful, and worthwhile” |  |
| Persistence in applying mathematics to solve problems |  |
| Believe in their ability to learn mathematics |  |

**3. Supporting Students’ Mathematics Learning (Rubrics 2 and 3)**

1. Justify how your understanding of your students’ prior academic learning; personal, cultural, and community assets; and mathematical dispositions (from prompts 2a–c above) guided your choice or adaptation of learning tasks and materials. Be explicit about the connections between the learning tasks and students’ prior academic learning, their assets, their mathematical dispositions, **and research/theory.**

Organize your answer:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Chosen learning task or material (or adaptation of either) | Associated student learning or asset | Why did you make this choice? | What research supports this choice? | How does the research support this choice? |
|  |  |  |  |  |
|  |  |  |  |  |

1. Describe and justify why your instructional strategies and planned supports are appropriate for **the whole class, individuals, and groups of students with specific learning needs.**

Consider students with IEPs, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students needing greater support or challenge.

Organize your answer:

|  |  |  |
| --- | --- | --- |
| Instructional/planned support | How is this tied to the learning objective? | Why is this appropriate for the whole class or what particular group of students is this designed for? |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

1. Describe common mathematical preconceptions, errors, or misunderstandings within your central focus and how you will address them.

Organize your answer:

|  |  |  |
| --- | --- | --- |
| Possible mathematical preconception, error, or misunderstanding | How will you identify if students have this preconception? | How will you address it during instruction? |
|  |  |  |
|  |  |  |

4. Supporting Mathematics Development Through Language (Rubric 4)

a. **Language Function.** Using information about your students’ language assets and needs, identify one language function essential for students to develop conceptual understanding, procedural fluency, and mathematical reasoning or problem-solving skills within your central focus. Listed below are some sample language functions. You may choose one of these or another language function more appropriate for your learning segment.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Compare/contrast | Justify | Describe | Explain | Prove |

Sentence starter: “The language function essential for student learning within my central focus is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”

1. Identify a key learning task from your plans that provides students with opportunities to practice using the language function. Identify the lesson in which the learning task occurs. (Give the lesson/day and number.)

Sentence starter: “The key learning task that gives student the opportunity to practice using the language function is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This task occurs on day \_\_\_\_\_\_\_\_\_\_ in lesson \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.”

**c. Additional Language Demands.** Given the language function and learning task identified above, describe the following associated language demands (written or oral) students need to understand and/or use:

* + Vocabulary and/or symbols
  + Mathematical precision (e.g., using clear definitions, labeling axes, specifying units of measure, stating meaning of symbols), appropriate to your students’ mathematical and language development
  + **Plus** at least one of the following:
    - Syntax
    - Discourse

Consider the range of students’ understandings of the language function and other language demands—what do students already know, what are they struggling with, and/or what is new to them

Organizing your response:

|  |  |  |  |
| --- | --- | --- | --- |
| Language demand | What do students already know? | What are they struggling with? | What is new to them? |
| Vocabulary/Symbols |  |  |  |
| Mathematical precision |  |  |  |
| Syntax |  |  |  |
| Discourse |  |  |  |

**d. Language Supports.** Refer to your lesson plans and instructional materials as needed in your response to the prompts.

* Identify and describe the planned instructional supports (during and/or prior to the learning task) to help students understand, develop, and use the identified language demands (function, vocabulary and/or symbols, mathematical precision, discourse, or syntax).

Organizing your response:

|  |  |  |
| --- | --- | --- |
| Language demand | Language support planned | How does this language support help students use the language demand? |
| Function |  |  |
| Vocabulary and/or symbols |  |  |
| Mathematical precision |  |  |
| Syntax and/or discourse |  |  |

**5. Monitoring Student Learning (Rubric 5)**

In response to the prompts below, refer to the assessments you will submit as part of the materials for Task 1.

**a.** Describe how your planned formal and informal assessments will provide direct evidence of students’ conceptual understanding, procedural fluency**, AND** mathematical reasoning and/or problem-solving skills **throughout** the learning segment.

Organize your response:

|  |  |  |
| --- | --- | --- |
| Area of Targeted Student Learning | Description of assessments designed to monitor the targeted student learning. | Explain how this assessment will provide evidence of student mastery of this area of targeted student learning? |
| Understanding of mathematical concepts |  |  |
| Procedural fluency |  |  |
| Mathematical reasoning |  |  |
| Problem solving skills |  |  |

b. Explain how the design or adaptation of your planned assessments allows students with specific needs to demonstrate their learning.

Consider all students, including students with IEPs, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students.

Organize your response:

|  |  |  |
| --- | --- | --- |
| Description of assessment or assessment adaptations | The students(s) for whom the assessment was designed or adapted | How does this assessment allow this student(s) to demonstrate his/her learning? |
|  |  |  |
|  |  |  |
|  |  |  |

**Instruction Commentary** **Thinking Organizers and Helpful Hints (Secondary Mathematics Version)**

***Please note: The purpose of this thinking organizer is to help you gather and organize your thoughts in preparation for writing your instruction commentary. You will still need to write your answers in paragraph form in the official edTPA instruction commentary template.***

1. Which lesson or lessons are shown in the video clips? Identify the lesson(s) by lesson plan number.

Sentence starters:

“The lesson shown in the clips is Lesson #\_\_\_\_\_\_\_”

OR

“The lesson shown in Clip 1 is Lesson \_\_\_\_\_\_\_ and the lesson shown in Clip 2 is Lesson \_\_\_\_\_\_\_\_.”

**2. Promoting a Positive Learning Environment (Rubric 6)**

a. How did you demonstrate mutual respect for, rapport with, and responsiveness to students with varied needs and backgrounds, and challenge students to engage in learning?

Organize your answer:

|  |  |  |
| --- | --- | --- |
| Characteristic of Positive Learning Environment | Video segment(s) with time stamps that demonstrates this characteristic | How does this clip demonstrate this characteristic? |
| Mutual respect for students |  |  |
| Rapport with students |  |  |
| Responsiveness to students’ needs |  |  |
| Challenging students to engage in learning |  |  |

**3. Engaging Students in Learning (Rubric 7)**

a. Explain how your instruction engaged students in developing

* conceptual understanding
* procedural fluency **AND**
* mathematical reasoning and/or problem-solving skills

Organize your answer:

|  |  |  |
| --- | --- | --- |
| Student action | Video clip with time stamps that shows this action | How is this action seen in the video? |
| Students are engaged in developing conceptual understanding |  |  |
| Students are engaged in developing procedural fluency |  |  |
| Students are engaged in developing mathematical reasoning and/or problem solving skills |  |  |

b. Describe how your instruction linked students’ prior academic learning and personal, cultural, and community assets with new learning.

Organize your response:

|  |  |  |
| --- | --- | --- |
| Instructional connections between student characteristics and new learning | Video clip with time stamps that shows this connection | How is this connection seen in the video? |
| Students’ prior academic learning |  |  |
| Students’ personal assets |  |  |
| Students’ cultural assets |  |  |
| Students’ community assets |  |  |

**4. Deepening Student Learning during Instruction**

a. Explain how you **elicited and built on student responses** to promote thinking and develop conceptual understanding, procedural fluency**, AND** mathematical reasoning and/or problem-solving skills**. (Rubric 8)**

Organize your response

|  |  |  |
| --- | --- | --- |
| Evidence of eliciting responses from students that promote student development of… | Video clip (including time stamps) | Describe how you elicited responses and deepened student thinking in this clip |
| Conceptual understanding |  |  |
| Procedure fluency |  |  |
| Mathematical reasoning |  |  |
| Problem solving skills |  |  |

b. Explain how you used representations to support students’ understanding and use of mathematical concepts and procedures.

Organize your response

|  |  |  |
| --- | --- | --- |
| Evidence using of representation to… | Video clip (including time stamps) | Describe how you elicited responses and deepened student thinking in this clip |
| Support students’ understanding/use of math concepts. |  |  |
| Support students’ understanding/use of math procedures. |  |  |

**5. Analyzing Teaching (Rubric 10)**

Consider the variety of learners in your class who may require different strategies/support (such as students with IEPs, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students).

1. What changes would you make to your instruction—for the whole class and/or for students who need greater support or challenge—to better support student learning of the central focus (e.g., missed opportunities)?

Organize your response:

|  |  |  |
| --- | --- | --- |
| Learning need seen in video | Video segment (Including video # and time stamps) | Proposed change in teaching practice |
|  |  |  |
|  |  |  |

1. Why do you think these changes would improve student learning? Support your explanation with evidence of student learning **AND** principles from theory and/or research.

Organize your response:

|  |  |  |  |
| --- | --- | --- | --- |
| Proposed change in teaching practice | How would this change assist students with achieving the learning objective? | What research is this change based on? | How does this research support your proposed change? |
|  |  |  |  |
|  |  |  |  |

**Assessment Commentary** **Thinking Organizers and Helpful Hints (Secondary Mathematics Version)**

***Please note: The purpose of this thinking organizer is to help you gather and organize your thoughts in preparation for writing your assessment commentary. You will still need to write your answers in paragraph form in the official edTPA assessment commentary template. The exception to this is your response to 1b.***

1. **Analyzing Student Learning (Rubric 11)**
2. Identify the specific learning objectives measured by the assessment you chose for analysis**.**

Organize your answer:

|  |  |
| --- | --- |
| Objective | Explain how is how this is measured in the assessment |
|  |  |
|  |  |
|  |  |

b. Provide a graphic (table or chart) or narrative that summarizes student learning for your whole class. Be sure to summarize student learning for all evaluation criteria submitted in Assessment Task 3, Part D.

*Create a table that shows the student learning/performance by question or activity aligned to objective.*

c. Use evidence found in the **3 student work samples and the whole class summary** to analyze the patterns of learning **for the whole class** and differences for groups or individual learners relative to

* conceptual understanding
* procedural fluency, **AND**
* mathematical reasoning and/or problem-solving skills

Organize your answer:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Pattern of student learning observed  (what are they doing well or what are they struggling with?) | Is the pattern relative to conceptual understanding, procedural fluency, mathematical reasoning, or problem solving skills? | Students showing this pattern | Evidence from whole class summary | Evidence from student work samples |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

1. **Feedback to Guide Further Learning**

b. Explain how feedback provided to the 3 focus students addresses their individual strengths and needs relative to the standards/objectives measured. **(Rubric 12)**

*Hints: Be sure to provide feedback on to students on both their strengths and their errors.*

*Be sure to provide equal feedback to all student work samples.*

|  |  |  |  |
| --- | --- | --- | --- |
| Focus student | Description of feedback provided (identify question, page, etc.) | Associated learning objective | Does the feedback focus on the students’ strengths or errors? |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |

c. Describe how you will support each focus student to understand and use this feedback to further their learning related to learning objectives, either within the learning segment or at a later time. **(Rubric 13)**

|  |  |  |
| --- | --- | --- |
| Focus student | How student will understand and use the feedback for further learning to learning objectives? | How you will support the student in understanding and using the feedback? |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |

**3. Evidence of Language Understanding and Use (Rubric 14)**

Explain and provide evidence for the extent to which your students were able to use or struggled to use the selected language function, vocabulary and/or symbols, and mathematical precision, discourse, or syntax to develop content understandings.

f

Organize your response:

|  |  |  |
| --- | --- | --- |
| Language demand | Evidence of use (be specific) | How does this evidence show the students using the language demand to develop their content understanding? |
| Selected language function (write it in) |  |  |
| Vocabulary/symbols |  |  |
| mathematical precision |  |  |
| Syntax |  |  |
| Discourse |  |  |

**4.** Using Assessment to Inform Instruction (Rubric 15)

a. Based on your analysis of student learning presented in prompts 1b-c, describe next steps for instruction to impact student learning

* for the whole class
* for the 3 focus students and other individuals/groups with specific needs
* Consider the variety of learners in your class who may require different strategies/support (e.g., students with IEPs, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students needing greater support or challenge).

|  |  |
| --- | --- |
| Students | Next steps for instruction |
| Whole class |  |
| Focus student 1 |  |
| Focus student 2 |  |
| Focus student 3 |  |
| Individuals with specific needs |  |
| Groups with specific needs |  |

1. Explain how these next steps follow from your analysis of student learning. Support your explanation with principles from research and/or theory.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Next step for instruction | What learning need is this in response to? | Why did you choose this as your next step for instruction? | What research supports this instructional choice? | How does this research support this instructional choice? |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

1. [↑](#footnote-ref-1)