**Planning Commentary** **Thinking Organizers and Helpful Hints (Secondary Science 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

* the use of science concepts,
* the application of scientific practices through inquiry, and
* the development and evaluation of evidence-based explanations of or reasonable predictions about a real-world phenomenon based on patterns of evidence and/or data.

Organize your response:

|  |  |  |
| --- | --- | --- |
| List the standard or learning objective  *\*You may find it easier to list objectives*. | Identify if it is connected to a science concept, science practice through inquiry, developing an evidence-based explanation, reasonable prediction about real-world phenomenon | Explain how these are connected. |
|  |  |  |
|  |  |  |

1. Explain how your plans build each other to support students to **understand relationships** between scientific concepts, scientific practices through inquiry, and the phenomenon in the learning segment.

*Clarification: Explain how you will take students from the introduction of the concept to developing an evidence-based explanation or argument about the phenomenon.*

Organize your response:

|  |  |  |  |
| --- | --- | --- | --- |
| State the science concept, science practice and phenomenon 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 |
|  |  |  |  |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| State the science concept, science practice and phenomenon 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–b), 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 or 504 plans, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students.

a. Prior academic learning, prerequisite skills, and understanding related to the central focus—**What do students know, what can they do, and what are they learning to do? (Cite the evidence!)**

Organize your response:

|  |  |  |  |
| --- | --- | --- | --- |
| Students | Related content already learned | Related skills students already have | What understanding do the students have related to the central focus |
| Class as a whole |  |  |  |
| Students with IEPs |  |  |  |
| Students with 504 plans |  |  |  |
| ELL students |  |  |  |
| Underperforming students |  |  |  |
| Struggling readers |  |  |  |
| Gifted |  |  |  |

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/language backgrounds related to the learning segment | Students’ 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 (struggling readers, ELLs, underperforming students, gifted students) |  |  |  |  |

Notes: Stay positive – discuss your students’ assets

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

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

1. Justify how your understanding of your students’ prior academic learning and personal/cultural/community assets (from prompts 2a–b 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 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 (students with IEPs, ELLs, struggling readers, etc.) is this designed for? |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

1. Describe common preconceptions (based on prior learning and experiences) within your central focus and how you will identify and address them.

Organize your answer:

|  |  |  |
| --- | --- | --- |
| Possible student preconception | How will you identify if students have this preconception? | How will you address it during instruction? |
|  |  |  |
|  |  |  |

**4. Supporting Science Development through Language (Rubric 4)**

1. Language Function. Using information about your students’ language assets and needs, identify one language function, from the list below, essential for students to develop understanding of science concepts, the phenomenon, and the application of scientific practices through inquiry within your central focus.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Analyze** | **Explain** | **Interpret** | **Justify with evidence** | **Predict** |

Note: You may choose one of these or another language function more appropriate for your learning segment.

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 students 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

- **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 |  |  |  |
| 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, syntax, or discourse).

Organizing your response:

|  |  |  |
| --- | --- | --- |
| Language demand | Language support planned | How does this language support help students use the language demand? |
| Function: |  |  |
| Vocabulary and/or symbols: |  |  |
| Syntax: |  |  |
| 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’ understanding science concepts, the real-world phenomenon, AND the application of scientific practices through inquiry t**hroughout** the learning segment.

Organize your response:

|  |  |  |  |
| --- | --- | --- | --- |
| Assessment | Where does it occur in the learning segment? | What learning objective(s) does this assessment address? | How will this assessment provide evidence of student mastery of science concepts, the real world phenomenon, and/or application of science practices through inquiry ? |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

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 student(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 Science 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 |  |  |

b. If relevant, describe what you did to ensure safety during the inquiry seen in the video clips.

Organize your Answer.

|  |  |  |  |
| --- | --- | --- | --- |
| Safety issues addressed | Lesson 1: | Lesson 2: | Lesson 3: |

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

a. What was the process by which students selected or collected evidence and/or data to support evidence-based explanations of or predictions about the real-world phenomenon being investigated?

Organize your answer:

|  |  |  |
| --- | --- | --- |
| Student action | Video clip with time stamps that shows this action | How is this action seen in the video? |
| Students collected evidence to support their explanations or predictions |  |  |
| Students collected data to support their explanations or predictions |  |  |

b. Explain how you engaged students during a scientific inquiry in

* using evidence and/or data and science concepts to construct an **evidence-based explanation** of or **prediction about a real-world phenomenon** and supporting or refuting alternative explanations or predictions.
* Supporting or refuting alternative explanations or predictions

Organize your answer:

|  |  |  |  |
| --- | --- | --- | --- |
| Student action | Video clip with time stamps that shows this action | How is this action seen in the video? | How do you (the candidate) support the students in these actions (provide time stamps and explanations) |
| Students are constructing an evidence-based explanation of or a prediction about a real world phenomenon |  |  |  |
| Student refer to data or science concepts in connection to making the explanation or prediction |  |  |  |
| Students are supporting or refuting alternative explanations or predictions |  |  |  |

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

|  |  |  |
| --- | --- | --- |
| 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 learning |  |  |
| Students’ personal assets |  |  |
| Students’ cultural assets |  |  |
| Students’ community assets |  |  |

**4. Deepening Student Learning during Instruction (Rubric 8**)

a. Explain how you **elicited and built on student responses** to promote thinking and develop understandings of science concepts, scientific practices and inquiry, **AND** the phenomenon being investigated.

|  |  |  |  |
| --- | --- | --- | --- |
| Evidence of eliciting and building on responses from students related to… | Video clip (including time stamps) | What is the student response that demonstrates understanding of? | Describe how you elicited responses and deepened student thinking in this clip |
| Science Concepts (Levels 3 & 4) |  |  |  |
| Scientific Practices through inquiry (Levels 3 & 4) |  |  |  |
| Phenomenon being investigated (Levels 3 & 4) |  |  |  |
| Students evaluating their own   * Data Collection * Procedures * Interpretations * Evidence-based explanations or predictions (Level 5) |  |  |  |

b. Explain how your instruction supported students to use science concepts, consider the quality of evidence and/or data (e.g., missing data, inconsistent results), and/or apply scientific practices while they are organizing and analyzing evidence and/or data during a scientific inquiry**. (Rubric 9)**

|  |  |  |
| --- | --- | --- |
| Evidence of incidences of analyzing data from inquiry | Video clip (including time stamps)  *Please Note: The rubric criterion is “Candidates asks students to present or record evidence and/or data in tables, maps, diagrams, or other graphical or statistical displays.” (Levels 3 and 4)* | Describe how you facilitated the students’ work with data in this clip  *Please Note: The rubric criterion is “Candidate facilitates a data analysis discussion where students demonstrated the ability to find patterns and/or inconsistencies in the data. (Level 4)* |
| Students are using the science concepts |  |  |
| Students are considering the quality of evidence and/or data |  |  |
| Students are applying scientific practices while organizing and analyzing evidence and/or data |  |  |

**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 Science 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**. (Rubric 11 and 12**)

Organize your answer:

|  |  |
| --- | --- |
| Standard or Objective | Evaluation criteria submitted in Assessment Task 3, Part D for this standard or objective. |
|  |  |
|  |  |

**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 (which you have indicated above).

*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
* use of scientific practices during inquiry
* evidence-based argument or reasonable prediction about a scientific phenomenon

**Consider what students understand and do well, and where they continue to struggle (e.g., common errors, confusions, need for greater challenge).**

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, use of scientific practices, or creating evidence-based arguments or predictions? | Students showing this pattern | Evidence from whole class summary | Evidence from student work samples |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

d. If a video or audio work sample occurs in a group context (e.g., discussion), provide the name of the clip and clearly describe how the scorer can identify the focus student(s) (e.g., position, physical description) whose work is portrayed.

Organize your answer:

|  |  |  |  |
| --- | --- | --- | --- |
| Work sample | Name of Video Clip | Name of Audio clip | Identifying features |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |

1. **Feedback to Guide Further Learning (Rubric 12)**

a. Identify the format in which you submitted your evidence of feedback for the   
3 focus students.

* Written directly on work samples or in separate documents that were provided to the focus students
* In audio files
* In a video clip from Instruction Task 2 (provide a time-stamp reference) or in a separate video clip

If a video or audio clip of feedback occurs in a group context (e.g., discussion), clearly describe how the scorer can identify the focus student (e.g., position, physical description) who is being given feedback.

b. Explain how feedback provided to the 3 focus students addresses their individual strengths and needs relative to the learning objectives measured.

*Hints: Be sure to provide feedback 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, video clip, audio clip etc.) | Associated learning objective | How does the feedback address the student’s strengths and needs? |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |

c. Describe how you will support each focus student to understand and use the feedback to further their learning related to the 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 their current work? | 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 syntax or discourse to develop content understandings.**

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: |  |  |
| 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? |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |