### Thinking Organizers: Tools for Candidates to Organize and Record Their Thinking During Both Formative and Summative edTPA Experiences

**Purpose:** As teacher candidates undergo the edTPA assessment process, they can experience difficulty keeping track of the reasoning and thinking behind all of the decisions that they made during the process. These thinking organizers provide an avenue through which candidates can record their thoughts, reasoning, and evidence of practice throughout the edTPA process and then have easy access to that information when they are ready to write their commentaries.

These thinking organizers were created by Elisa Palmer (edTPA coordinator, Illinois State University) to assist candidates with the organization of their thoughts prior to writing their official responses to the edTPA commentary prompts. These supports provide a table for each commentary question that the candidate fills in with his or her thoughts. The teacher candidate can then use that table to write his or her official response to that question.

Use of the thinking organizers is not limited to work on the summative edTPA portfolio. Instructors can use the tables in formative experiences leading up to the summative edTPA portfolio creation. For example, a course may have an assignment or clinical experience that requires reflections upon professional practice. The course instructor can utilize some of the thinking organizers and adapt them to the particular questions asked in that assignment or clinical reflection.

Overall, the thinking organizers are helpful in aiding teacher candidates in their documentation of their thinking and reasoning throughout the completion of their edTPA portfolio as well as providing a tool for creating and organizing responses in formative course work.



#### Thinking organizers are available for the following edTPA handbooks:

- Agriculture
- Business Education
- Early Childhood
- Elementary Literacy
- Family and Consumer Sciences
- Health Education
- K-12 Physical Education
- K-12 Performing Arts
- Middle Childhood English Language Arts
- Middle Childhood Mathematics
- Middle Childhood Science
- Middle Childhood Social Studies
- Secondary English-Language Arts
- Secondary History/Social Studies
- Secondary Mathematics
- Secondary Science
- Special Education
- Technology and Engineering Education
- Visual Arts
- World Languages

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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

a.	Describe the	central focus	and pur	pose for the	content you	u will teach i	n 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 and the ability to apply scientific practices through inquiry to develop evidence-based explanations for a real-world phenomenon based on patterns of evidence and/or data.

Organize your response:

List the standard or learning objective	Identify if it is connected to a science concept, science practice, or developing an evidence-based explanation.	Explain how these are connected.



**c. 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:

<u> </u>			
Identify 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

#### 2. Knowledge of Students to Inform Teaching

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 learning, prerequisite skills, and understanding of the nature of science related to the central focus—What do students know, what can they do, and what are they learning to do?

Organize your response:

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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			
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 backgrounds and practices, and interests?

Organize your response:

Students	Students' everyday experiences related to the learning segment	Students' cultural backgrounds <u>related</u> to the learning <u>segment</u>	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



a. Explain how your understanding of your students' prior learning and personal/cultural/community assets (from prompts 2a–b above) guided your choice or adaptation of learning tasks and materials.

Organize your answer:

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

b. 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:

organize year anewer:		
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?



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

Organize your answer:

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

- 4. Supporting Science Development through Language
  - a. Language Function. From the list below, choose one language function essential for student learning within your central focus:

Analyze	Explain	Interpret	Justify with evidence
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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 "

b. 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:

Organizing your response.	What do students already	What are they struggling	What is new to them?
Language demand	know?	with?	
Vocabulary			
Symbols			
Syntax			
Discourse			



- d. Language Supports. Refer to your lesson plans and instructional materials as needed in your response to the prompts.
  - Describe the instructional supports (during and/or prior to the learning task) that help students understand and successfully use the language function and additional language demands identified in prompts 4a–c.

Organizing your response:

Language demand	Language support planned	How does this language support help students use the language function?
Vocabulary and/or symbols		
Syntax and/or discourse		

#### 5. Monitoring Student Learning

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

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 throughout the learning segment.



a.

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.

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
- 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		



c. If relevant, describe what you did to ensure safety <u>during the inquiry</u> seen in the video clips.

Lesson 1:	Lesson 2:	Lesson 3:
	Lesson 1:	Lesson 1: Lesson 2:

#### 3. Engaging Students in Learning

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 <u>evidence-based explanation</u> of or <u>prediction about a real-world phenomenon</u> and 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?
Students are analyzing/interpreting data		
Students are constructing an evidence-based argument or a prediction about a real world phenomenon		
Student refer to data or science concepts in connection to making an argument		
Students are supporting or refuting alternative explanations or predictions		

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

Instructional connections between student characteristics and new	Video clip with time stamps that shows	How is this connection seen in the
learning	this connection	video?
Students' prior 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 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)	Describe how you elicited responses and deepened student thinking in this clip
Collecting data		
Analyzing data		
Interpreting data		
Drawing conclusions/building arguments		
Understanding of the real world phenomenon being investigated		



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.

Evidence of incidences of analyzing data from inquiry	Video clip (including time stamps)	Describe how you facilitated the students' work with data in this clip
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

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).

a. 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



b. 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
- a. Identify the specific standards/objectives measured by the assessment you chose for analysis.

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 <u>for your whole class</u>. 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 <u>clearly describe</u> 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			

#### 2. Feedback to Guide Further Learning

- 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 standards/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. How will you support students 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?

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

Explain and provide evidence for the extent to which your students were able to use or struggled to use language (selected function, vocabulary and/or symbols, and additional identified language demands from Task 1) 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

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



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