



# NATIONAL FORUM FOR STEAM IN HIGHER EDUCATION

April 25-26, 2019 | The Heritage Manila

“Modelling TPACK in Philippine STEAM

(Science, Technology, Engineering, Agri-Fisheries, Mathematics) Education”



## ENHANCED TPACK LESSON PLAN TEMPLATE

**Your Name:** \_\_\_\_\_ **Program:** \_\_\_\_\_

**Subject/Course:** \_\_\_\_\_

**Topic:** \_\_\_\_\_

**Lesson Title:** \_\_\_\_\_

**Level:** \_\_\_\_\_ **Lesson Duration:** \_\_\_\_\_

Learning Outcome(s)		
Learning Outcomes	Objectives	Tasks <i>(What task/s should I give my students to ensure realization of the objectives?)</i>
<b>Performance Standards</b> <i>(What should the students be able to do?)</i>  1. 2.	1.a. 1.b 2.a 2.b	
<b>Content Standards</b> <i>(What should the students know to be able to do?)</i>  1. 2.	1.a. 1.b 2.a 2.b	
Target Audience		
<b><u>Knowing the Learner</u></b>		
<i>Based on your survey data from earlier in the course, describe the target audience for this lesson; what types of learning styles will you need to be mindful of?</i>		
Year Level: _____	Ethnicity: _____	
Course/Discipline: _____	Language: _____	
General Attribute (characteristics of the class): _____		
Pedagogies (Remembering to consider relevance and career/workforce readiness skills around what is being taught)		

1. Walkthrough of the lesson (how will you deliver the lesson/topic (from engaging the student to ensuring achievement of learning objectives?))
  
2. How will the lesson delivery manifest efficient classroom management?
  
3. What student misconceptions did you consider in designing this lesson?
  
4. How will I integrate technology in the lesson delivery?

**Summary:** How are technology, content, and pedagogical knowledge working together in this lesson?

Technology Being Used by Students	Technology Being Used by Teacher
<ul style="list-style-type: none"> <li>• What technology will my students use in this lesson?</li>   <li>• What were your reasons for choosing the technology for the students to use?</li>   <li>• What are the limitations and potential problems in utilizing the technology?</li> </ul>	<ul style="list-style-type: none"> <li>• What technology will I use in this lesson?</li>   <li>• What were my reasons for choosing the technology?</li>   <li>• What are the limitations and potential problems in utilizing the technology?</li> </ul>
Assessment for Learning (Formative Assessment)	
<ol style="list-style-type: none"> <li>1. Assessment Strategy</li>         <li>2. Technology which will be integrated in the Assessment</li> </ol>	<ol style="list-style-type: none"> <li>1. Feedback Strategy</li>         <li>2. Technology which will be integrated in the Feedback System</li> </ol>

**Assessment of Learning (Summative Assessment)**

1. *How do you know students met the learning objectives and targets?*
  
2. *What technology will you use to facilitate assessment of learning?*

**Reflection**

**Modifications/Enrichments** (imbedded in this lesson or ideas for future lesson delivery based on insights in peer review)



**PHILIPPINE NORMAL UNIVERSITY**  
The National Center for Teacher Education  
&  
**COMMISSION ON HIGHER EDUCATION (CHED)**



**CAPABILITY BUILDING PROGRAM FOR STEAM EDUCATION**

March 19-21, 2019 | Philippine Normal University - Manila

*“Capability Building Program for STEAM Education”*

**RUBRIC FOR LESSON EXEMPLAR**

**Your Name:** \_\_\_\_\_ **Program:** \_\_\_\_\_

**Subject/Course:** \_\_\_\_\_

**Topic:** \_\_\_\_\_

**Lesson Title:** \_\_\_\_\_

**Level:** \_\_\_\_\_ **Lesson Duration:** \_\_\_\_\_

	<b>1- Below Proficient</b>	<b>2- Proficient</b>	<b>3- Above Proficient</b>	<b>Score/Level</b>
<i>Connection among content, pedagogical approach and technology</i>	There is no apparent connection among content, pedagogy and technology.	Content, instructional strategies and technology are somewhat connected.	Content, instructional strategies and technology are strongly connected AND the lesson plan includes a description of the connections.	
<i>Rationale for Instructional strategy/ies</i>	The rationale for selecting the instructional strategy/ies is insufficient OR there is no rationale for the instructional activities in the lesson plan.	The rationale for selecting the instructional strategy/ies used is sound.	The rationale for selecting the instructional strategy/ies is sound AND is tied to a learning theory.	
<i>Appropriateness of technology for instructor use</i>	The rationale for selecting the technology for instructor uses is insufficient OR there is no rationale for the instructor use of technology in the lesson plan.	The rationale for selecting the technology for instructor use is sound.	The rationale for selecting the technology for instructor use is sound AND includes reasons why other technologies were not selected.	
<i>Alignment to state standards for content and computer skills</i>	Lesson plan is not clearly aligned to state standards for content and/or computer skills.	Lesson plan is clearly aligned to state standards for both content and computer skills at the	Lesson plan is clearly aligned to state standards for both content and computer skills at the	

		appropriate grade level.	appropriate grade level AND is also aligned to one or more other discipline standards (interdisciplinary).	
<i>Completeness</i>	Lesson plan is incomplete. One or more key elements are missing or are insufficient.	Lesson plan is complete. It contains all of the required elements.	Lesson plan is complete AND includes at least one of the following: -addresses higher-order thinking as per Bloom's Taxonomy -integrates with other content areas -includes accommodations for students with special needs. -includes accommodations for students with special needs.	
<i>Language and Mechanics</i>	Lesson plan contains multiple errors in grammar, spelling, punctuation and/or grammar OR word choice is inappropriate	Lesson plan contains no more than two grammar, spelling, and/or punctuation errors. Errors do not affect the meaning of the writing. Word choice is appropriate for the lesson.	Lesson plan is error-free. Writing demonstrates superior understanding of grammar, spelling and punctuation.	
Comments/Suggestions:				



**PHILIPPINE NORMAL UNIVERSITY**  
The National Center for Teacher Education  
&  
**COMMISSION ON HIGHER EDUCATION (CHED)**



**CAPABILITY BUILDING PROGRAM FOR STEAM EDUCATION**

March 19-21, 2019 | Philippine Normal University - Manila

*“Capability Building Program for STEAM Education”*

**PEER-REVIEW FORM**

**Your Name:** \_\_\_\_\_ **Program:** \_\_\_\_\_

**Subject/Course:** \_\_\_\_\_

**Topic:** \_\_\_\_\_

**Lesson Title:** \_\_\_\_\_

**Level:** \_\_\_\_\_ **Lesson Duration:** \_\_\_\_\_

TPACK Dimension	Attributes	5	4	3	2	1	Remarks/Suggestions
		Exceeds standard	Meets standard	Nearly meets standard	Does not meet standard	No Evidence	
<b>Content</b>	Provides Clear Lesson Objectives.	<input type="checkbox"/>					
	Exhibits sufficient knowledge of the subject topic/content.	<input type="checkbox"/>					
<b>Pedagogy</b>	Assessments match instructional method.	<input type="checkbox"/>					
	Lesson appears to help organize and manage student behavior—Explains sequence of events and	<input type="checkbox"/>					

	<i>procedures for students.</i>						
<b>Technology</b>	Lesson plan incorporates at least 1 technology.	<input type="checkbox"/>					
	Discusses possible limitations to technology or potential problems, as well as solutions.	<input type="checkbox"/>					
	Provides clear rationale for technology choice.	<input type="checkbox"/>					
	Demonstrates understanding of technology as teacher tool or student tool.	<input type="checkbox"/>					
<b>Pedagogical Content Knowledge</b>	Selects effective teaching strategies appropriate to subject domain to guide student thinking and learning.	<input type="checkbox"/>					
	Demonstrates awareness of possible student misconceptions.	<input type="checkbox"/>					
	Presents appropriate strategies for developing understanding of the subject content.	<input type="checkbox"/>					
<b>Technological Pedagogical Knowledge</b>	Chooses technologies enhancing approaches (teacher-centered approaches) – <i>Uses technology to present material.</i>	<input type="checkbox"/>					

	Chooses technologies enhancing student learning (student-centered approaches) – <i>Students use technology to explore content and achieve learning goals.</i>	<input type="checkbox"/>					
	Provides clear rationale for technology choice to deliver instruction.	<input type="checkbox"/>					
<b>Technological Content Knowledge</b>	Chooses appropriate technologies for subject domain (mathematics, science).	<input type="checkbox"/>					
	Link between technology and content is obvious or explicit	<input type="checkbox"/>					
<b>Technological Pedagogical Content Knowledge</b>	Appropriately uses content, pedagogy, and technology strategies.	<input type="checkbox"/>					
	Technology enhances content objectives and instructional strategies.	<input type="checkbox"/>					
General Comments/Suggestions:							