

## STEM Education Service-Learning Project Preparation – Assessment Rubrics of Teaching Materials

Grade	Descriptions
A+	<b>Excellent (9-11)</b> <ul style="list-style-type: none"> <li>• <b>Content:</b> <u>Consistently</u> well-organized and illustrated the STEM knowledge that the service recipients are required to apply in the service setting, age-appropriate, readable, aligned with STEM education service-learning project learning goals</li> <li>• <b>Plan:</b> <u>strong potential</u> to <u>effectively</u> teach key concepts &amp; application about STEM, providing the service recipients with a comprehensive understanding of science, technology or mathematics principles and how they can be applied in real-world scenarios.; <u>highly</u> related to [the final products/competition]; schedule has <u>logical flow</u> &amp; is <u>comprehensive</u> (covers <u>all</u> knowledge deliverables for the STEM service-learning project)</li> <li>• <b>Learning materials:</b> <u>Maximizes/creatively</u> uses resources &amp; innovative technologies for teaching STEM; <u>attractive</u> presentation; has <u>variety</u> of learning activities (e.g., exercises, games, worksheets) to enhance higher-level thinking, assess understanding, and engage learners in learning STEM</li> </ul>
A	
A-	
B+	<b>Good (6-8)</b> <ul style="list-style-type: none"> <li>• <b>Content:</b> <u>mostly</u> organized in presenting the STEM knowledge that the service recipients are required to apply in the service setting, age-appropriate, readable, and aligned with STEM education service-learning project learning goals</li> <li>• <b>Plan:</b> <u>adequately</u> tackles key concepts &amp; application about STEM; <u>related</u> to [the final products/competition]; schedule/flow <u>makes sense</u> and covers <u>all</u> deliverables</li> <li>• <b>Learning materials:</b> Uses <u>some appropriate</u> resources and technologies for teaching STEM; includes <u>some practical</u> learning activities</li> </ul>
B	
B-	
C+	<b>Satisfactory (3-5)</b> <ul style="list-style-type: none"> <li>• <b>Content:</b> <u>some parts</u> are organized and well-planned to explain the STEM knowledge, but overall <u>could be more</u> age-appropriate, readable, or aligned with STEM education service-learning project learning goals</li> <li>• <b>Plan:</b> <u>simple</u> teaching of key concepts about STEM, but may <u>lack</u> application, depth, or relation to [the final products/competition]; flow is <u>fragmented</u> or <u>superficial</u>; <u>missing some</u> knowledge deliverables</li> <li>• <b>Learning materials:</b> relies on <u>one-way</u> teaching; uses <u>only basic</u> technologies for teaching STEM; learning activities are <u>limited</u> or focus on memorizing STEM concepts</li> </ul>
C	
C-	
D+	<b>Pass (1-2)</b> <ul style="list-style-type: none"> <li>• <b>Content:</b> <u>too simple</u> or <u>too complicated</u> to explain the STEM knowledge; <u>not clearly</u> illustrated, <u>hard</u> to read, or <u>lacks alignment</u> with STEM education service-learning project learning goals</li> <li>• <b>Plan:</b> most parts are <u>insufficient</u> or <u>ineffective</u> for teaching key concepts &amp; application about STEM; <u>fragmented</u> flow</li> <li>• <b>Learning materials:</b> <u>unclear, unattractive</u>; <u>lacks</u> strategies or activities to engage learners to learn STEM; activities <u>do not contribute</u> to learners' comprehension of STEM concepts</li> </ul>
D	
F	<b>Fail</b> <p><u>Irrelevant</u> to the STEM education service-learning project learning goals; <u>essential</u> deliverables are <u>missing</u>; materials contain <u>inappropriate</u> ideas or <u>errors</u> about STEM; <u>lacks</u> examples &amp; learning activities to explain the STEM knowledge</p>