



# STEM Walkthrough Protocol

Teacher: \_\_\_\_\_ Subject:  Science  Math  ELA  Social Studies  CTE/Voc./Art  Elective

School: \_\_\_\_\_ Date: \_\_\_\_\_ Grade:  K-2  3-5  6-8  9-12

Learning Objective: \_\_\_\_\_

\*Response: Yes/No/Not Observed

\*Suggested: 5-10 min.

Part of the lesson observed:  Beginning  Middle  End

Y N N/O TASK	NOTES
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Is focused on problem-solving <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Includes inter-disciplinary instruction <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Allows exploration of real-world questions, problems, or issues <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Is challenging and cognitively-demanding <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Aligns to adopted standards for course/grade-level	
Y N N/O STUDENTS	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Can clearly communicate why they are doing each activity <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Collaborate to ask question and construct explanations or define problems and test solutions <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Use complex reasoning to make new meaning of the concepts being addressed <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Use evidence to support their arguments, claims, and reasoning <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Reflect on the learning to identify how their thinking on concepts has been reinforced or changed	
Y N N/O TEACHER	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Communicates the lesson objective in student friendly language <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Makes clear the connections between lesson objective and the enduring understandings <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Facilitates student identification of the problem and/or project and its outcome and product <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Questions students and student groups to assess the depth of understanding and to encourage divergent modes of thinking <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Clarifies student understanding and adjusts instruction as needed	
Y N N/O CLASS CLIMATE is	Y N N/O LEARNING ENVIRONMENT includes
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Student-centered <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Demonstrating student authentic engagement <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Supportive of risk taking and encourages perseverance <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Rich with conversations that demonstrate respect for other perspectives, ideas, and approaches <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Reflective of value being placed on the learning process and practices, as well as the end result of the lesson	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Technology, tools, and materials that are easily accessible <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Seating that is conducive to collaboration and investigations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Classrooms displays that highlight and confirm important learning concepts <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Routines and procedures that maximize learning and student safety



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## \*Notes to the Teacher:

- Please identify what Student Practices were focused on during the lesson, then fill out the Reflection on the bottom of the page.
- Check to make sure the Learning Objective recorded matches the intended outcome and modify if needed.
- Please place the completed form in my box by the end of the day.
- Thank you for letting me visit your class today!

STUDENT PRACTICES			
SCIENCE	TECHNOLOGY	ENGINEERING	MATH
<b>Students use science practices as appropriate to:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> ask questions</li> <li><input type="checkbox"/> develop and use models</li> <li><input type="checkbox"/> plan and carry out investigations</li> <li><input type="checkbox"/> analyze and interpret data</li> <li><input type="checkbox"/> use mathematical and computational thinking</li> <li><input type="checkbox"/> construct explanations</li> <li><input type="checkbox"/> engage in arguments from evidence</li> <li><input type="checkbox"/> obtain, evaluate, and communicate information</li> </ul>	<b>Students use technology as appropriate to:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> access and gather information</li> <li><input type="checkbox"/> conceptualize, model, and solve problems</li> <li><input type="checkbox"/> communicate findings</li> </ul>	<b>Students use engineering practices as appropriate to:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> define the problem</li> <li><input type="checkbox"/> research the problem</li> <li><input type="checkbox"/> brainstorm possible solutions</li> <li><input type="checkbox"/> choose the best solution</li> <li><input type="checkbox"/> build a model or prototype</li> <li><input type="checkbox"/> test solutions</li> <li><input type="checkbox"/> communicate solutions</li> </ul>	<b>Students use the Standards for Mathematical Practice (SMPs) to:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> make sense of problems and persevere in solving them</li> <li><input type="checkbox"/> reason abstractly and quantitatively</li> <li><input type="checkbox"/> construct viable arguments and critique the reasoning of others</li> <li><input type="checkbox"/> model with mathematics</li> <li><input type="checkbox"/> use appropriate tools strategically</li> <li><input type="checkbox"/> attend to precision (e.g., in communication, reasoning, units, and calculations)</li> <li><input type="checkbox"/> look for and make use of structure</li> <li><input type="checkbox"/> look for and express regularity in repeated reasoning</li> </ul>
REFLECTION			
The part of my lesson that went well was...		The part that I would do differently next time was...	

## REFERENCES

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- RMC Research Corporation. (2010). *Science Classroom Observation Protocol: Washington State's Vision of Effective Science Learning Experiences for Students.* Portland, OR: Washington State LASER.