

Middle School STEM Standards Checklist
(Draft)

<u>Literacy Standards - Reading</u>	<u>Standards for Technological Literacy</u>
<p>Key Ideas & Details</p> <ol style="list-style-type: none">1. Read closely; cite specific textual evidence ...2. Determine central ideas of a text & analyze their development; summarize the key supporting details and ideas3. Analyze how and why ideas develop & interact over the course of a text <p>Craft and Structure</p> <ol style="list-style-type: none">4. Interpret words & phrases as they are used in text..5. Analyze the structure of texts ...6. Assess how point of view or purpose shapes the content and style of a text. <p>Integration of Knowledge and Ideas</p> <ol style="list-style-type: none">7. Integrate and evaluate content presented in diverse media and formats ...8. Delineate and evaluate the argument and specific claims in a text ...9. Analyze how two or more texts address similar themes or topics ... <p>Range of Reading & Level of Text Complexity</p> <ol style="list-style-type: none">10. Read and comprehend science /technical texts at grade level independently and proficiently	<p>Develop an understanding of the:</p> <ol style="list-style-type: none">1: characteristics & scope of technology2: core concepts of technology3: relationships among technologies and the connections between technology & other fields of study.4: cultural, social, economic, & political effects of technology.5: effects of technology on the environment6: role of society in the development and use of technology.7: influence of technology on history8: attributes of design.9: engineering design.10: role of troubleshooting, research & development, invention & innovation, & experimentation in problem solving <p>Develop abilities to:</p> <ol style="list-style-type: none">11: apply the design process.12: use & maintain technological products & systems.13: assess the impact of products & systems. <p>Develop an understanding of & be able to select & use:</p> <ol style="list-style-type: none">14: medical technologies.15: agricultural & related biotechnologies.16: energy & power technologies.17: information & communication technologies.18: transportation technologies.19: manufacturing technologies.20: construction technologies.
<p><u>Literacy Standards - Writing</u></p>	<p><u>Science Standards</u></p>
<p>Text Types and Purposes</p> <ol style="list-style-type: none">1. Write arguments focused on content2. Write informative/explanatory texts <p>Production & Distribution of Writing</p> <ol style="list-style-type: none">4. Produce clear and coherent writing5. Develop and strengthen writing6. Use technology to produce and publish writing <p>Research to Build and Present Knowledge</p> <ol style="list-style-type: none">7. Conduct short research projects to answer a question8. Gather relevant information from multiple print and digital sources9. Draw evidence from informational texts to support analysis, reflection and research <p>Range of Writing</p> <ol style="list-style-type: none">10. Write routinely over extended and shorter time frames.	<p>Standard 1: Skills & Processes</p> <p>A1. Design, analyze, or carry out simple investigations and formulate appropriate conclusions based on data obtained or provided</p> <p>B1. Review data from a simple experiment, summarize the data, and construct a logical argument about the cause-and-effect relationships in the experiment</p> <p>C1. Develop explanations that explicitly link data from investigations conducted, selected readings, and, when appropriate, contributions from historical discoveries</p> <p>D. Design and Systems: Explain that complex systems require control mechanisms</p> <p>D. Designed Systems: Analyze, design, assemble and troubleshoot complex systems.</p> <p>D. Making Models: Analyze the value and the limitations of different types of models in explaining real things and processes.</p>

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Standards for Mathematics Practices

- 1 Make sense of problems & persevere in solving them
- 2 Reason abstractly & quantitatively
- 3 Construct viable arguments & critique reasoning of others
- 4 Model with mathematics
- 5 Use appropriate tools strategically
- 6 Attend to precision
- 7 Look for & make use of structure
- 8 Look for & express regularity in repeated reasoning

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