

FOR MORE INFORMATION ON THE  
 "INCREASING LEARNING TIME FOR MATH:  
 INTEGRATING MATH AND SCIENCE"  
 ONLINE RESOURCE, AS WELL AS OTHER  
 SERVICES AND PRODUCTS RELATED TO THE  
 CRITICAL SUCCESS FACTORS, CONTACT YOUR  
 LOCAL EDUCATION SERVICE CENTER  
 REPRESENTATIVE.



ESC Collaborative

# INCREASING LEARNING TIME FOR MIDDLE SCHOOL MATH: SCIENCE AND MATH INTEGRATION

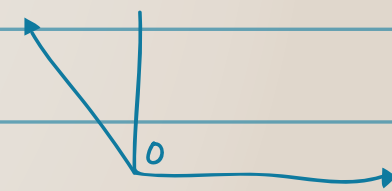
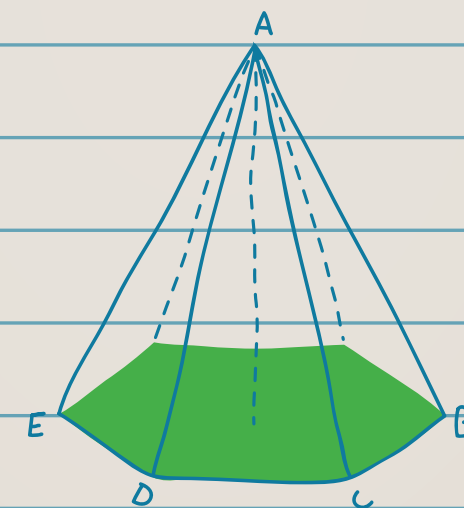
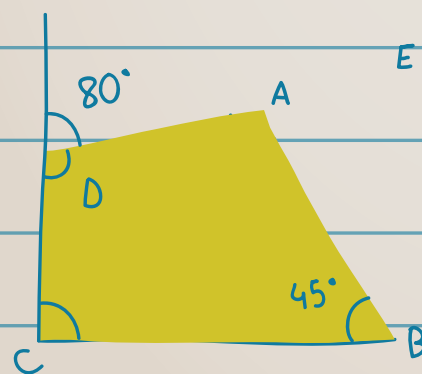


## The Middle School Science and Math Integration Tool

$$ax^2 + bx + c = 0$$

$$x \left( \frac{2\pi}{a} - b \right)$$

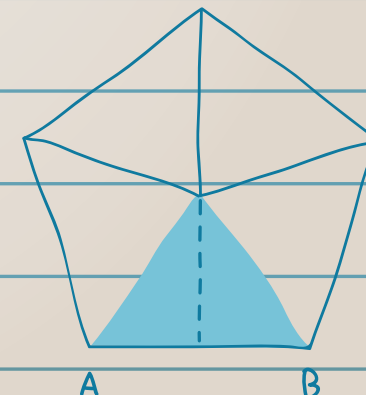
$$A+B+C+D=360^\circ$$

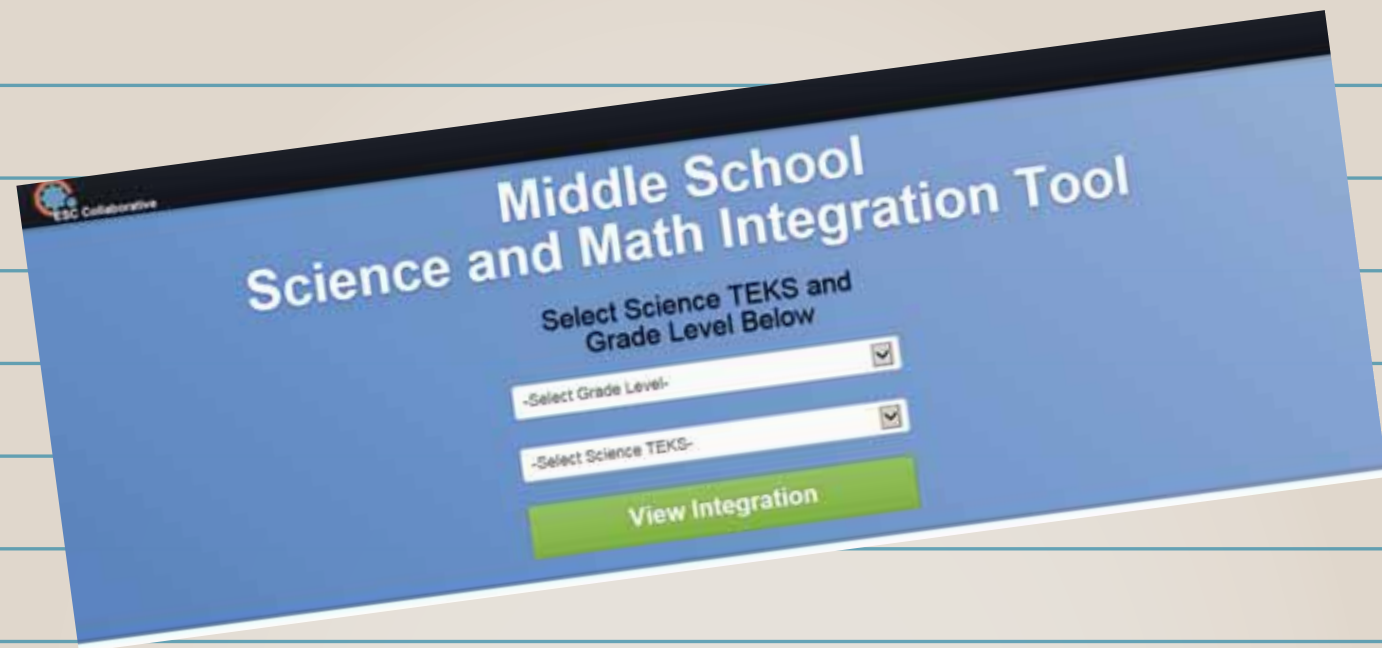


$$\sqrt{\frac{a}{x}}$$

$$a = x^2$$

$$y = \left( \frac{b \times a}{2} \right) - h$$





## ABOUT THE MIDDLE SCHOOL SCIENCE AND MATH INTEGRATION TOOL

### Increased Academic Learning Time:

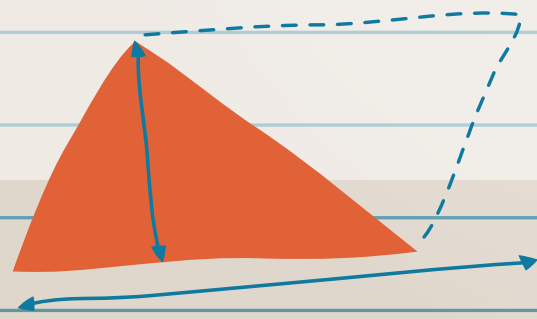
The Middle School Math and Science Integration tool has been developed to assist in the integration of the science and mathematics Texas Essential Knowledge and Skills (TEKS). One of the keys to increasing student achievement and engagement is to integrate and use science and mathematics standards while providing rigorous student-centered instruction. As more districts and campuses implement authentic project-based learning opportunities, integrating science and math standards with an emphasis on applying learned concepts has become much more common.

### Increased Teacher Collaboration and Professional Development:

Professional learning communities composed of science and math teachers will be provided with an online tool to effectively integrate science and mathematics standards into an interdisciplinary performance assessment. The middle school science and math TEKS are correlated according to common concepts and processes.

### Increased Enrichment Opportunities:

This tool provides science and math teachers and their professional learning communities with a tool to efficiently integrate mathematics standards into interdisciplinary performance assessments, hence providing more authentic learning opportunities for mathematics instruction.



### Critical Success Factors:

Every organization has factors that are critical to its success. Limiting these factors to a manageable number of key areas will help the organization thrive. Once identified, critical success factors help stakeholders focus on the priorities of the organization, develop measurable goals, and create a culture of teamwork.

While the concept may seem basic, accurately defining the critical success factors your campus must focus on, determining what the measurable goals will be, and putting evidence-based strategies in place to achieve the goals is more complex. It takes dedication, skillful planning, and a commitment to ongoing assessment of the process to be successful. Our goal in developing this planning resource is to assist your campus with the implementation of strategies required for your students to be successful.

The following success factor, "Increased Learning Time" is a foundational element within the framework of the Texas Accountability Intervention System developed by TEA and TCDSS.

### "Increased Learning Time"

Research promotes a three-pronged approach to Increased Learning Time that includes the following elements: (a) increased academic learning time, (b) increased enrichment activities, (c) and increased teacher collaboration and professional development.

