



Zionsville Community Schools – STEM Framework

Science, Technology & Engineering 90 minutes/week	Mathematics 60-90 minutes/ day		
Classroom Teacher: <ul style="list-style-type: none"> • Core Science Standards • Investigations • Hands-on exploration • Demonstrations • PBL/ Lead with a question • Formative and summative assessment 	Teacher Directed		Student Directed
	Core Standards Modeling Think Alouds Introduce New Concepts Activating Strategies Summative Assessment	Flexible Groups Conferencing Math Journaling Formative Assessment	Differentiated Work Stations Contracts/PBL
STEM Coach/Teacher: <ul style="list-style-type: none"> • Support Core Standards • Engineering Standards • Investigations • Hands-on exploration • Demonstrations • PBL • Formative/summative assessment 	Modeling	Shared Inquiry	Independent Discovery

What do I teach during my Science lesson?

What do I teach during my 60-90 minute Math Block?

<ul style="list-style-type: none"> • Core Standards • Scientific Response • Vocabulary • Asking questions and defining problems • Developing and using models • Planning and carrying out investigations • Analyzing and interpreting data 	<ul style="list-style-type: none"> • Using mathematics and computational thinking • Constructing explanations and designing solutions • Engaging in argument from evidence • Obtaining, evaluating, and communicating information 	<p>8 Mathematical Practices</p> <ol style="list-style-type: none"> 1. Make sense of problems and persevere in solving them 2. Reason abstractly and quantitatively 3. Construct viable arguments and critique the reasoning of others 4. Model with mathematics 5. Use appropriate tools strategically 6. Attend to precision 7. Look for and make use of structure 8. Look for and express regularity in repeated reasoning 	<ul style="list-style-type: none"> • Vocabulary • Math Talks • Fact Fluency • Multiple Strategies • Algorithms • Math Response • Number Sense • Mathematical Comprehension • Comprehension Strategies • Mental Math
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