

**Grade 3 - Mathematics Curriculum Alignment
2023-24 FIRST LEGO League Explore Team Meeting Guide**

Team Meeting Guide Outcomes	Strand	Specific Expectations	Addressed
<p>Session 1:</p> <p>Introduction - Let's Discover</p> <ul style="list-style-type: none"> Students discuss the Core Value of discovery and provide examples. <p>Team Outcomes</p> <ul style="list-style-type: none"> The team will use discovery to explore the MASTERPIECE theme and explain how people share what they love to do. The team will build a place to share a hobby or interest. <p>Share</p> <ul style="list-style-type: none"> Share what they did in the session. Explain their hobbies and interests. Share how they use art or creativity in their interests. 	Number		
	Algebra		
	Data		
	Spatial Sense	E1.2 compose and decompose various structures, and identify the two-dimensional shapes and three-dimensional objects that these structures contain	-
	Financial Literacy		

- The standard is clearly addressed by program activities.
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	SEL Skills & Mathematical Processes	<p>*problem solving: develop, select, and apply problem-solving strategies</p> <p>*communicating: express and understand mathematical thinking</p> <p>*selecting tools and strategies: select and use a variety of concrete, visual, and electronic learning tools and appropriate strategies to investigate mathematical ideas and to solve problems</p>	<ul style="list-style-type: none"> • • •
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Team Meeting Guide Outcomes	Strand	Specific Expectations	Addressed
<p>Session 2:</p> <p>Introduction – Go Team</p> <ul style="list-style-type: none"> • Students talk about what teamwork is and provide examples of this Core Value <p>Team Outcomes</p> <ul style="list-style-type: none"> • The team will build the basic stage and minifigures in Bag 1. • The team will explore different jobs in the arts and tools or objects used <p>Share</p> <p>Have the team:</p> <ul style="list-style-type: none"> • Share what they did in the session. • Share what they learned about the experts in the Explore story • Demonstrate how the different minifigure items could be used. • Describe their scene for the 	Number		
	Algebra		
	Data		
	Spatial Sense	E1.2 compose and decompose various structures, and identify the two-dimensional shapes and three-dimensional objects that these structures contain	-

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Explore story	Financial Literacy		
	SEL Skills & Mathematical Processes	<p><i>problem solving:</i> develop, select, and apply problem-solving strategies</p> <p><i>communicating:</i> express and understand mathematical thinking</p> <p><i>selecting tools and strategies:</i> select and use a variety of concrete, visual, and electronic learning tools and appropriate strategies to investigate mathematical ideas and to solve problems</p>	<ul style="list-style-type: none"> • • •

Team Meeting Guide Outcomes	Strand	Specific Expectations	Addressed
<p>Session 3:</p> <p>Introduction – Let’s Have Fun</p> <ul style="list-style-type: none"> • Teams talk about what fun is and provide examples of this Core Value <p>Team Outcomes</p> <ul style="list-style-type: none"> • The team will add the music concert pieces to the basic stage. • The team will identify different ways sound is used to help make an impact on an audience. <p>Share</p> <p>Have the team:</p> <ul style="list-style-type: none"> • Share what they did in the session. 	Number		
	Algebra		
	Data		

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<ul style="list-style-type: none"> • Demonstrate how the concert stage works. • Explain how sound is used to make an impact for an audience. • Show different examples of sounds icons on the mat. 	Spatial Sense	E1.2 compose and decompose various structures, and identify the two-dimensional shapes and three-dimensional objects that these structures contain	-
	Financial Literacy		
	SEL Skills & Mathematical Processes	<p><i>*problem solving:</i> develop, select, and apply problem-solving strategies</p> <p><i>*communicating:</i> express and understand mathematical thinking</p> <p><i>*selecting tools and strategies:</i> select and use a variety of concrete, visual, and electronic learning tools and appropriate strategies to investigate mathematical ideas and to solve problems</p>	<ul style="list-style-type: none"> • • •

Team Meeting Guide Outcomes	Strand	Specific Expectations	Addressed
<p>Session 4:</p> <p>Introduction – Let’s Innovate</p> <ul style="list-style-type: none"> • Students talk about what innovation is and the team provides examples of this Core Value <p>Team Outcomes</p> <ul style="list-style-type: none"> • The team will build the LEGO® model from the lesson and explore motor coding blocks. • The team will identify creative ways stages are used in a theatre. 	Number		
	Algebra	<p>C3.1 solve problems and create <u>computational representations</u> of mathematical situations by writing and <u>executing code</u>, including <u>code</u> that involves <u>sequential</u>, <u>concurrent</u>, and <u>repeating events</u></p> <p>C3.2 read and alter existing code, including code that involves sequential, concurrent, and repeating events, and describe how changes to the code affect the <u>outcomes</u></p>	<ul style="list-style-type: none"> • •

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Share Have the team: <ul style="list-style-type: none"> • Share what they did in the session. • Show the motor coding skills they learned. • Explain how technology is used to make an impact for an audience. • Show different examples of theatre icons on the mat. 	Data		
	Spatial Sense	E1.2 compose and decompose various structures, and identify the two-dimensional shapes and three-dimensional objects that these structures contain	-
	Financial Literacy		
	SEL Skills & Mathematical Processes	<i>*problem solving:</i> develop, select, and apply problem-solving strategies <i>*communicating:</i> express and understand mathematical thinking <i>*selecting tools and strategies:</i> select and use a variety of concrete, visual, and electronic learning tools and appropriate strategies to investigate mathematical ideas and to solve problems	<ul style="list-style-type: none"> • • •

Team Meeting Guide Outcomes	Strand	Specific Expectations	Addressed
Session 5: Introduction – Be Inclusive <ul style="list-style-type: none"> • The team will talk about what inclusion is and provide 	Number		

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<p>examples of this Core Value</p> <p>Team Outcomes</p> <ul style="list-style-type: none"> • The team will build the LEGO® model from the lesson and explore the use of lights and sensors. • The team will identify how lights and sounds are used to make a museum exhibit interactive. <p>Share</p> <p>Have the team:</p> <ul style="list-style-type: none"> • Share what they did in the session. • Show the sensor coding skills they learned. • Demonstrate how they modified the model and code so that light and sound is triggered by a sensor 	Algebra	<p>C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential, concurrent, and repeating events</p> <p>C3.2 read and alter existing code, including code that involves sequential, concurrent, and repeating events, and describe how changes to the code affect the outcomes</p>	<ul style="list-style-type: none"> • •
	Data		
	Spatial Sense	E1.2 compose and decompose various structures, and identify the two-dimensional shapes and three-dimensional objects that these structures contain	<ul style="list-style-type: none"> •
	Financial Literacy		
	SEL Skills & Mathematical Processes	<p>*problem solving: develop, select, and apply problem-solving strategies</p> <p>*communicating: express and understand mathematical thinking</p> <p>*selecting tools and strategies: select and use a variety of concrete, visual, and electronic learning tools and appropriate strategies to investigate mathematical ideas and to solve problems</p>	<ul style="list-style-type: none"> • • •

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<p>Session 6:</p> <p>Introduction – Have an Impact</p> <ul style="list-style-type: none"> Teams will talk about what impact is and provide examples of this Core Value <p>Team Outcomes</p> <ul style="list-style-type: none"> The team will build the LEGO® model from the lesson and code the robot to drive. The team will apply their coding and building skills to change the existing robot into a vehicle with a camera. <p>Share</p> <p>Have the team:</p> <ul style="list-style-type: none"> Share what they did in the session. Show how they have applied coding skills learned in previous sessions to make a moving camera. Share how their moving camera was built 	Number		
	Algebra	<p>C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential, concurrent, and repeating events</p> <p>C3.2 read and alter existing code, including code that involves sequential, concurrent, and repeating events, and describe how changes to the code affect the outcomes</p>	<ul style="list-style-type: none"> • •
	Data		
	Spatial Sense	<p>E1.2 compose and decompose various structures, and identify the two-dimensional shapes and three-dimensional objects that these structures contain</p> <p>E1.4 give and follow multistep instructions involving movement from one location to another, including distances and half- and quarter-turns</p>	<ul style="list-style-type: none"> • -
	Financial Literacy		
	SEL Skills & Mathematical Processes	<p>*problem solving: develop, select, and apply problem-solving strategies</p> <p>*communicating: express and understand mathematical thinking</p> <p>*selecting tools and strategies: select and use a variety of concrete, visual, and electronic learning tools and appropriate strategies to investigate mathematical ideas and to solve problems</p>	<ul style="list-style-type: none"> • • •

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<p>Session 7:</p> <p>Introduction – Discovery Build</p> <ul style="list-style-type: none"> The team will provide examples of how they have used discovery throughout the sessions The team will create a build from the prototyping pieces represent this Core Value <p>Team Outcomes</p> <ul style="list-style-type: none"> The team will combine the basic stage model with the motor and hub The team will apply all their coding and building knowledge to create their own stage. <p>Share Have the team:</p> <ul style="list-style-type: none"> Share what they did in the session. Show how they have applied coding skills learned in previous sessions to make their model move. Demonstrate how their stage engages an audience. 	Number		
	Algebra	C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential, concurrent, and repeating events C3.2 read and alter existing code, including code that involves sequential, concurrent, and repeating events, and describe how changes to the code affect the outcomes	<ul style="list-style-type: none"> • •
	Data		
	Spatial Sense	E1.2 compose and decompose various structures, and identify the two-dimensional shapes and three-dimensional objects that these structures contain E1.4 give and follow multistep instructions involving movement from one location to another, including distances and half- and quarter-turns	<ul style="list-style-type: none"> • -
	Financial Literacy		

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	SEL Skills & Mathematical Processes	<p>*problem solving: develop, select, and apply problem-solving strategies</p> <p>*communicating: express and understand mathematical thinking</p> <p>*selecting tools and strategies: select and use a variety of concrete, visual, and electronic learning tools and appropriate strategies to investigate mathematical ideas and to solve problems</p>	<ul style="list-style-type: none"> ● ● ●
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Team Meeting Guide Outcomes	Strand	Specific Expectations	Addressed
<p>Sessions 8 & 9:</p> <p>Introduction – Teamwork and Fun Builds</p> <ul style="list-style-type: none"> ● The team will provide examples of how they have used teamwork and fun throughout the sessions ● The team will create a build from the prototyping pieces representing this Core Value <p>Team Outcomes</p> <ul style="list-style-type: none"> • The team will draw their team model design and label its required parts. • The team will create a team model to showcase a talent or interest that uses technology in creative ways. <p>Share</p>	Number		
	Algebra	<p>C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential, concurrent, and repeating events</p> <p>C3.2 read and alter existing code, including code that involves sequential, concurrent, and repeating events, and describe how changes to the code affect the outcomes</p>	<ul style="list-style-type: none"> ● ●
	Data		
	Spatial Sense	E1.2 compose and decompose various structures, and identify the two-dimensional shapes and three-dimensional objects that these structures contain	-

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<p>Have the team:</p> <ul style="list-style-type: none"> • Share what they did at the end of each session. • Explain the program and how the motor, sensor and light are used in the model. • Review the list of required parts and identify them on the team model. • Demonstrate how the team model works. 	Financial Literacy		
	SEL Skills & Mathematical Processes	<p><i>*problem solving:</i> develop, select, and apply problem-solving strategies</p> <p><i>*communicating:</i> express and understand mathematical thinking</p> <p><i>*selecting tools and strategies:</i> select and use a variety of concrete, visual, and electronic learning tools and appropriate strategies to investigate mathematical ideas and to solve problems</p>	<ul style="list-style-type: none"> • • •

Team Meeting Guide Outcomes	Strand	Specific Expectations	Addressed
<p>Sessions 10 & 11:</p> <p>Introduction – Innovation and Inclusion Builds</p> <ul style="list-style-type: none"> • The team will provide examples of how they have used innovation (Session 10) and inclusion (Session 11) • The team will create a build from the prototyping pieces representing this Core Value <p>Team Outcomes</p> <ul style="list-style-type: none"> • The team will create a plan for what they will include on their 	Number		
	Algebra		
	Data		

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<p>team poster. • The team will design and create their team poster</p> <p>Share Have the team:</p> <ul style="list-style-type: none"> • Share what they did at the end of each session. • Show their team poster design. <ul style="list-style-type: none"> • Explain their team journey. • Demonstrate how they will present their team poster 	Spatial Sense		
	Financial Literacy		
	SEL Skills & Mathematical Processes	<p>*problem solving: develop, select, and apply problem-solving strategies</p> <p>*communicating: express and understand mathematical thinking</p> <p>*selecting tools and strategies: select and use a variety of concrete, visual, and electronic learning tools and appropriate strategies to investigate mathematical ideas and to solve problems</p>	<ul style="list-style-type: none"> • • •

Team Meeting Guide Outcomes	Strand	Specific Expectations	Addressed
<p>Session 12:</p> <p>Introduction – Impact Build</p> <ul style="list-style-type: none"> • Have the team provide examples of how they have had an impact throughout the sessions • Have the team create a build from the prototyping pieces representing this Core Value 	Number		
	Algebra		

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<p>Team Outcomes</p> <ul style="list-style-type: none"> • The team will reflect on their MASTERPIECE experience. • The team will create a plan for what to share at their final event <p>Share</p> <p>Have the team:</p> <ul style="list-style-type: none"> • Practice their team poster presentation. • Practice their team model presentation. 	Data		
	Spatial Sense		
	Financial Literacy		
	SEL Skills & Mathematical Processes	<p>*problem solving: develop, select, and apply problem-solving strategies</p> <p>*communicating: express and understand mathematical thinking</p> <p>*selecting tools and strategies: select and use a variety of concrete, visual, and electronic learning tools and appropriate strategies to investigate mathematical ideas and to solve problems</p>	<ul style="list-style-type: none"> • • •

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