Grade 2 - Mathematics Curriculum Alignment 2022=23 FIRST LEGO League Explore Team Meeting Guide

| Team Meeting Guide Outcomes | Strand |  | Specific Expectations |
| :--- | :--- | :--- | :--- |
| Session 1: <br> Introduction - Let's Discover <br> $\bullet$ <br> Students discuss the Core <br> Value of discovery and <br> provide examples. <br> Team Outcomes <br> - The team will use discovery to <br> explore the MASTERPIECES <br> theme and explain how people <br> share what they love to do. <br> - The team will build a place to <br> share a hobby or interest. <br> Share <br> - Share what they did in the <br> session. <br> - Explain their hobbies and <br> interests. <br> - Share how they use art or <br> creativity in their interests. | Number |  |  |

- The standard is clearly addressed by program activities.
- This standard potentially could be addressed, either by actions taken when working with students or by conditions established by the program


## Grade 2 - Mathematics Curriculum Alignment

 2022=23 FIRST LEGO League Explore Team Meeting Guide|  | SEL Skills \& | *problem solving: develop, select, and apply problem-solving strategies <br> Mathematical <br> *communicating: express and understand mathematical thinking <br> *selecting tools and strategies: select and use a variety of concrete, visual, and electronic <br> learning tools and appropriate strategies to investigate mathematical ideas and to solve <br> problems |
| :--- | :--- | :--- | :--- |



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|  | Financial Literacy |  |  |
| :---: | :---: | :---: | :---: |
|  | SEL Skills \& Mathematical Processes | *problem solving: develop, select, and apply problem-solving strategies <br> *communicating: express and understand mathematical thinking <br> *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 | $\bullet$ |


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| :--- | :--- | :--- | :--- |
| Session 3: <br> Introduction - Let's Have Fun <br> - Teams talk about what fun is <br> and provide examples of this <br> Core Value <br> Team Outcomes <br> - The team will add the music <br> concert pieces to the basic stage. <br> - The team will identify different <br> ways sound is used to help make <br> an impact on an audience. | Algebra |  |  |
| Share <br> Have the team: <br> -Share what they did in the <br> session. | Data |  |  |

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| - Demonstrate how the concert stage works. <br> - Explain how sound is used to make an impact for an audience. <br> - Show different examples of sounds icons on the mat. | Spatial Sense |  |  |
| :---: | :---: | :---: | :---: |
|  | Financial Literacy |  |  |
|  | SEL Skills \& Mathematical Processes | *problem solving: develop, select, and apply problem-solving strategies <br> *communicating: express and understand mathematical thinking <br> *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 | $\bullet \bullet$ |


| Team Meeting Guide Outcomes | Strand | Specific Expectations | Addressed |
| :---: | :---: | :---: | :---: |
| Session 4: | Number |  |  |
| Introduction - Let's Innovate <br> - Students talk about what innovation is and the team provides examples of this Core Value <br> Team Outcomes <br> - The team will build the LEGO® model from the lesson and explore motor coding blocks. <br> - The team will identify creative ways stages are used in a theatre. |  |  |  |
|  | Algebra | C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential and concurrent events <br> C3.2 read and alter existing code, including code that involves sequential and concurrent events, and describe how changes to the code affect the outcomes | - |

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| Share <br> Have the team: <br> - Share what they did in the session. <br> - Show the motor coding skills they learned. <br> - Explain how technology is used to make an impact for an audience. <br> - Show different examples of theatre icons on the mat. | Data |  |  |
| :---: | :---: | :---: | :---: |
|  | Spatial Sense |  |  |
|  | Financial Literacy |  |  |
|  | SEL Skills \& Mathematical Processes | *problem solving: develop, select, and apply problem-solving strategies <br> *communicating: express and understand mathematical thinking <br> *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 | $\bullet$ |


| Team Meeting Guide Outcomes | Strand | Specific Expectations | Addressed |
| :--- | :--- | :--- | :--- |
| Session 5: <br> Introduction - Be Inclusive <br> $\bullet$ The team will talk about what <br> inclusion is and provide | Number |  |  |

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## Grade 2 - Mathematics Curriculum Alignment

 2022=23 FIRST LEGO League Explore Team Meeting Guide| examples of this Core Value Team Outcomes <br> - 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. <br> Share | Algebra | C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential and concurrent events <br> C3.2 read and alter existing code, including code that involves sequential and concurrent events, and describe how changes to the code affect the outcomes |  |
| :---: | :---: | :---: | :---: |
|  | Data |  |  |
|  |  |  |  |
| Share <br> Have the team: <br> - Share what they did in the session. <br> - Show the sensor coding skills they learned. <br> - Demonstrate how they modified the model and code so that light and sound is triggered by a sensor | Spatial Sense |  |  |
|  | Financial Literacy |  |  |
|  | SEL Skills \& Mathematical Processes | *problem solving: develop, select, and apply problem-solving strategies <br> *communicating: express and understand mathematical thinking <br> *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 |  |


| Team Meeting Guide Outcomes | Strand | Specific Expectations | Addressed |
| :--- | :---: | :---: | :---: |

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## Session 6:

## Introduction - Have an Impact

- Teams will talk about what impact is and provide examples of this Core Value


## Team Outcomes

- 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.


## Share

## Have the team:

- 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 | C3.1 solve problems and create computational representations of mathematical situations by <br> writing and executing code, including code that involves sequential and concurrent events <br> C3.2 read and alter existing code, including code that involves sequential and concurrent <br> events, and describe how changes to the code affect the outcomes | $\bullet$ |
| Data |  | $\bullet$ |
| Spatial Sense |  |  |
| Financial <br> Literacy |  |  |
|  <br> Mathematical <br> Processes | *problem solving: develop, select, and apply problem-solving strategies <br> *communicating: express and understand mathematical thinking <br> *selecting tools and strategies: select and use a variety of concrete, visual, and electronic <br> learning tools and appropriate strategies to investigate mathematical ideas and to solve <br> problems |  |

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| :---: | :---: | :---: | :---: |
| Session 7: | Number |  |  |
| Introduction - Discovery Build <br> - The team will provide examples of how they have |  |  |  |
| the sessions <br> - The team will create a build from the prototyping pieces represent this Core Value <br> Team Outcomes | Algebra | C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential and concurrent events C3.2 read and alter existing code, including code that involves sequential and concurrent events, and describe how changes to the code affect the outcomes |  |
| - The team will combine the basic stage model with the motor and hub <br> - The team will apply all their coding and building knowledge to create their own stage. | Data |  |  |
| Share | Spatial Sense |  |  |
| - Share what they did in the session. |  |  |  |
| sessions to make their model move. <br> - Demonstrate how their stage engages an audience. | Financial Literacy |  |  |

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| :--- | :--- | :--- | :--- |


| Team Meeting Guide Outcomes | Strand | Specific Expectations | Addressed |
| :---: | :---: | :---: | :---: |
| Sessions 8 \& 9: | Number |  |  |
| Introduction - Teamwork and Fun Builds <br> - The team will provide |  |  |  |
| used teamwork and fun throughout the sessions <br> - The team will create a build from the prototyping pieces representing this Core Value | Algebra | C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential and concurrent events C3.2 read and alter existing code, including code that involves sequential and concurrent events, and describe how changes to the code affect the outcomes |  |
| - The team will draw their team model design and label its required parts. <br> - The team will create a team model to showcase a talent or | Data |  |  |
| creative ways. | Spatial Sense |  |  |
| Share <br> Have the team: <br> - Share what they did at the end of |  |  |  |

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| each session. <br> - Explain the program and how the motor, sensor and light are used in the model. <br> - Review the list of required parts and identify them on the team model. <br> - Demonstrate how the team model works. | Financial Literacy |  |  |
| :---: | :---: | :---: | :---: |
|  | SEL Skills \& Mathematical Processes | *problem solving: develop, select, and apply problem-solving strategies <br> *communicating: express and understand mathematical thinking <br> *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 |  |


| Team Meeting Guide Outcomes | Strand |  | Specific Expectations |
| :--- | :--- | :--- | :--- |
| Sessions $\mathbf{1 0}$ \& 11: | Number |  |  |
| Introduction - Innovation and <br> Inclusion Builds <br> - The team will provide <br> examples of how they have <br> used innovation (Session 10) <br> and inclusion (Session 11) <br> - The team will create a build <br> from the prototyping pieces <br> representing this Core Value | Algebra |  |  |
| Team Outcomes <br> - The team will create a plan for <br> what they will include on their <br> team poster • The team will <br> design and create their team | Data |  |  |

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| poster <br> Share <br> Have the team: <br> - Share what they did at the end of each session. <br> - Show their team poster design. <br> - Explain their team journey. <br> - Demonstrate how they will present their team poster | Spatial Sense |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | Financial Literacy |  |  |
|  | SEL Skills \& Mathematical Processes | *problem solving: develop, select, and apply problem-solving strategies *communicating: express and understand mathematical thinking *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 |  |
| Team Meeting Guide Outcomes | Strand | Specific Expectations | Addressed |
| Session 12: | Number |  |  |
| Introduction - Impact Build <br> - Have the team provide examples of how they have |  |  |  |
| sessions <br> - Have the team create a build from the prototyping pieces representing this Core Value <br> Team Outcomes | Algebra |  |  |

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| - The team will reflect on their MASTERPIECE experience. • The team will create a plan for what to share at their final event <br> Share <br> Have the team: <br> - Practice their team poster presentation. <br> - Practice their team model presentation. | Data |  |  |
| :---: | :---: | :---: | :---: |
|  | Spatial Sense |  |  |
|  | Financial <br> Literacy |  |  |
|  | SEL Skills \& Mathematical Processes | *problem solving: develop, select, and apply problem-solving strategies <br> *communicating: express and understand mathematical thinking <br> *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 | $\bullet$ |

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