2nd Grade

Unit # – Unit Title

Text Connection: *Title* by Author

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| Design Challenge Summary |
| Challenge: What will the students be required to do? |
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| Standards: What standards are addressed? |
| Science:  NS.1.2.1 Communicate observations orally, in writing and in graphic organizers  NS.1.2.2 Develop questions that guide scientific inquiry  NS.1.2.3 Conduct scientific investigations as individually and in teams  NS.1.2.4 Estimate and measure length…  NS.1.2.5 Collect measurable empirical evidence in teams and as individuals  NS.1.2.6 Make predictions in teams and as individuals based upon empirical evidence  NS.1.2.7 Use age-appropriate equipment and tools in scientific investigations  NS.1.2.8 Apply lap safety rules as they relate to specific science lab activities  Math:  Mathematical Practice Standards  Other:  W.2.2 Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points and provide a concluding statement or section  W.2.3 Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts and feelings, use temporal words to signal event order, and provide a sense of closure  W.2.7 Participate in shared research and writing projects  SL.2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups  SL.2.3 Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information or deepen understanding of a topic or issue  SL.2.4 Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences  SL.2.6 Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification |
| Result: What will students know, value, and be able to do as a result of the lesson? What’s the big idea? |
| Know and apply the engineering design loop process.  Demonstrate ability to modify designs based on observations and predictions.  Work collaboratively on solving a problem. |
| Assessment: What evidence will be used to determine student learning? |
| Did they (what the challenge required)?  Did they follow the design loop process?  Did they work collaboratively? |
| Prior Knowledge/Experiences: What prior content knowledge and skills will the students need? |
| Experience with the Engineering Design Loop process  Connections to the Mathematical Practices  Investigations/inquiry in Science  Experiences with |
| Summary/Connections: How will this design challenge connect with new/future learning, other content areas, real world experiences, etc.? |
| This lesson will help students develop problem solving skills and collaboration skills that are essential in succeeding in the 21st century. It will allow student the opportunity to transfer and apply skills from various content areas within one task.  As a summary activity, you could engage students in:  W.2.2 Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points and provide a concluding statement or section  W.2.3 Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts and feelings, use temporal words to signal event order, and provide a sense of closure  Extensions: |
| Materials/Equipment/Preparation: What materials and equipment will students need to successfully complete this design challenge? |
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**ADDITIONAL INFORMATION**