1st 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.1.1.1 Communicate observations orally, in writing and in graphic organizers  NS.1.1.2 Ask questions based on observations  NS.1.1.3 Conduct scientific investigations as a class and in teams  NS.1.1.4 Estimate and measure length and temperature  NS.1.1.5 Collect measurable empirical evidence as a class  NS.1.1.6 Make predictions as a class and in teams based upon empirical evidence  NS.1.1.7 Use age-appropriate equipment and tools in scientific investigations  NS.1.1.8 Apply appropriate rules of safety related to daily activities  NS.1.1.9 Apply lab safety rules as they relate to specific science lab activities  Math:  Mathematical Practice Standards  ELA:  W.1.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.  SL.1.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups  SL.1.3 Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.  SL.1.5 Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts or feelings  SL.1.6 Produce complete sentences when appropriate to task and situation. |
| 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? |
| Experiences with the Engineering Design Loop process  Connections to the Mathematical Practices  Investigations/inquiry in Science |
| 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.1.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some 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:**