**North East School Division**



**Unpacking Outcomes**

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| **Harvesting the Outcome** | | | **BIG IDEAS** | |
| **SM3.1 Investigate properties of material and methods of joinery used in structures.** | | | **How did Pig #3 survive the wolf?**  **How does it fit together?**  **How can I make it work?** | |
| **Outcome** (circle the verb and underline the nouns or noun phrases) | | | | |
| **Investigate** → properties of materials  **Investigate** → methods of joinery used in structures | | | | |
| **KNOW BEFORE UNIT** | **KNOW AFTER UNIT** | **UNDERSTAND** | | **BE ABLE TO DO** |
| - the scientific process  - how to conduct a simple experiment | - how to strengthen materials  - appropriate methods of joinery  - steps involved in developing and carrying out a plan to build a structure  - the purpose of different structures | - that all structures have a purpose  - materials can be strengthened by adding layers, tying, gluing, triangulation, cross-bracing, changing shape)  - the importance of using recycled materials in construction  - the importance of using tools safely  - some materials are more appropriate for a structure based on the materials properties  - similar and dissimilar materials can be joined in many ways | | - examine the properties of materials used in structures  - compare the properties of materials used today and historically  - sort materials based on the physical properties of strength, texture, color, flexibility, and durability  - analyze how materials are joined and identify the most appropriate methods of joinery  - use appropriate tools to cut, sew, make holes and assemble materials  - assess the suitability of various materials for constructing structures  - examine the suitability of using recycled materials in constructing structures |
| Vocabulary:  - joinery  - materials  - predictions  - variable | - structure  - physical properties  - texture  - durability |
| **Essential Questions** | | | | |
| **What is the purpose of a structure?**  **How do I select the appropriate materials for a structure?**  **What are appropriate methods of joinery for a structure?**  **How can recycled materials be used in constructing structures?**  **How can I strengthen materials?**  **What differences and similarities do you see in materials used today and historically?** | | | | |