**North East School Division Planning Organizer**



**Mathematics 6 - 9**

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| **Stage 1 – Begin With the End in Mind** |
| **Big Ideas**(What do we want students to remember 40 years from now?) |
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| **Processes** |
| Communication | Connections |
| Reasoning | Technology |
| Visualization | Problem Solving |
| Mental Math and Estimation |

Do mathematical operations make sense? Does order matter? |
| **Outcomes** (Circle the verbs or skills, underline the nouns or noun phrases) |
| **Strands are: Number (N), Patterns & Relations (P), Shape & Space (SS) and Statistics & Probability (SP)**N8.5 Demonstrate understanding of multiplication and division of integers concretely, pictorally, and symbolically.Demonstrate --> understanding of multiplication of integersDemonstrate --> understanding of division of integers |
| **Understandings** (from unwrapped outcomes, **Why** or howit connects to more information)  | **Essential Questions**(Questions for deeper understanding that address the ideas and issues students need to think about throughout the unit) (p. 14) (p.20) (Enduring understandings from “unpacked” outcomes in relation to big ideas) |
| 1. Recognizing patterns and applying principles can simplify complex problem-solving.
2. Understanding the relationships between numbers and using numbers strategically can help us make sense of our surroundings.
3. Identifying patterns and applying principles simplifies mathematical work.
4. Integers can be used to represent many situations in our daily experience.
5. Order of operations can be applied to integers.
 | 1. Why do we need integers?
2. When would we use integers in real-life?
3. Why and how does order matter when working with integers?
4. Are there times when we need to learn new and different strategies for understanding and working with integers?
5. How can patterns help us to simplify our work with integers?
6. How can we simplify complex problems involving numbers, including integers?
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| **Students need to know:**(**What** concepts and **how**do students need to know from the outcomes?) (What key knowledge and skills will studentsacquire as a result of this outcome?) (What is the approximate level of Bloom’s Taxonomy of thinking skills?) (outcomes p. 10) | **And be able to do:**(What should they eventually be able to do as a result of such knowledge and skill?) (Indicators, p. 33)  |
| **Vocab – integers, simplify, product, quotient****Order of operations (BEDMAS)****Basic rules of multiplication and division.****Difference between positive and negative integers.****Know the properties of multiplication and division of integers.****How to use a calculator (basic operations).****How to perform the order of operations.**  | **Model the multiplication of 2 integers concretely or pictorially and represent symbolically.****Model the multiplication of 2 integers concretely or pictorially and represent symbolically.****Apply rules for multiplication and division of integers.****Apply knowledge to new problems with and without technology.****Explain how to apply BEDMAS.****Provide examples to demonstrate BEDMAS.****Connect multiplication and division of integers to a relevant experience.** |