**North East School Division Planning Organizer**



**Science 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?) | | |
| As an organism, where do I fit in my world?  Scientific thinking is about patterns, similarities and differences and how we come to understand how the world works. | | |
| **Outcomes** | | |
| **DL6.2 Examine how humans organize understanding of the diversity of living things.**  **DL6.3 Analyze the characteristics and behaviours of vertebrates and invertebrates.**  **Examine 🡪 methods (for organizing understanding of diversity)**  **Analyze 🡪 characteristics (vertebrates and invertebrates)**  **Analyze 🡪 behaviours (vertebrates and invertebrates)** | | |
| **Understandings** | **Essential Questions** | |
| 1. Classification of organisms is a cultural activity, influenced by a particular understanding of the world. 2. By using biological classification systems, a common language is achieved 3. A common language invites sharing and further, deeper inquiry. 4. Science often involves a particular language. 5. There are many ways to classify a single group of organisms. 6. Humans are just one small part of a vast array of diverse organisms. 7. It is important to examine classification of organisms in terms of structural (internal), physical appearance and behaviour in order to gain a full understanding of similarities, differences and how organisms function. 8. By classifying organisms we can then make predictions and further analyze the relationship between appearance, behaviour and structure. | 1. How is classification of organisms influenced by culture? 2. Why do we use a common scientific language? 3. How do biological classification systems look? 4. How is science like a language? 5. How can we classify things? 6. How are humans like other organisms? How are they different? 7. Where do humans fit in the biological classification system? 8. What do we need to know in order to classify? 9. What characteristics of organisms tell us how they function and how they are similar and different from other organisms? 10. How does classifying organisms help us to predict? 11. Why do we classify? | |
| **Students need to know:** | **And be able to do:** | |
| 1. **characteristics of vertebrates and invertebrates** 2. **behaviours of vertebrates and invertebrates** 3. **ways to sort** 4. **how a group is different from a sub-group** 5. **the five kingdom taxonomic model** 6. **scientific terminology** 7. **know the differences between structural, behavioural and physical classifications and characteristics** | | 1. **sort things into categories** 2. **sort organisms into vertebrates and invertebrates** 3. **ask questions about others’ and own work** 4. **explain their classification system** 5. **construct a visual representation** 6. **communicate using scientific terminology** 7. **use the five kingdom model** 8. **explain the benefits of using biological classification systems** 9. **work from a variety of visual representations** 10. **compare characteristics of organisms** 11. **explain why structural characteristics are important in classification in addition to physical and behavioural.** |