**North East School Division**



**Unpacking Outcomes**

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| **Unpacking the Outcome** | | |
| **Analyze 🡪 physiological principles**  **Analyze 🡪 biomechanical principles** | | |
| **Outcome** (circle the verb and underline the qualifiers) | | |
| **PE 30.8 Physiology and Biomechanics – Analyze physiological and biomechanical principles of movement.** | | |
| **KNOW** | **UNDERSTAND** | **BE ABLE TO DO** |
| * Short and long term effects of over-training – lack of muscle growth and degeneration of joints * Vocabulary – physiological, biomechanics, analyze, over-training, atrophy, degeneration, complex skill, critique, **proper execution,** anatomical * Difference between short term training program and long term training program | * Proper biomechanical execution will lead to desired outcomes * Improper biomechanical execution will lead to injury/less than desirable results * Proper physiology can influence your biomechanical execution * Participating in multiple activities is important to physiological development * Proper nutrition is a key component of physiological change * Rest and active recovery are critical for movement proficiency | * Analyze the physiological benefits of short and long term training programs. * Identify, through participation, the steps required to execute self-selected movement patterns and complex skills. * Critique, for self and others, various movement patterns and complex skills for proper biomechanical (e.g., rotation of a wrist, flexion of a joint and body position) execution. * Identify, through participation, the movement patterns required to execute self-selected weight training exercises (e.g., proper form for bench press) and fitness activities (e.g., proper foot plant for long distance running). * Critique, for self and others, various weight training exercises and fitness activities for proper biomechanical execution. * Discuss the potential long-term effects of using improper movement patterns in a specific activity. * Investigate the importance of rest and active recovery as part of a fitness or training plan. * Discuss the possible short- and long-term effects (e.g., lack of muscle growth and degeneration of joints) of over-training on an individual’s physiology. * Explore the importance of participating in multiple activities to support physical development. |
| **ESSENTIAL QUESTIONS** | | |
| **How do I know when I am, or someone else is executing a complex skill properly?**  **What are the physiological developmental benefits of participating in multiple activities?**  **What are long and short term effects of proper and improper execution of skills?**  **How are biomechanical execution and physiology connected?**  **How can I get better? How do biomechanics and physiological principles help me get better?**  **What are the roles of rest, recovery and nutrition in movement development?** | | |