**Unit 7:** Solving Quadratic Equations

**Overview:** After learning in Unit 6 how to multiply polynomials, students will learn in this unit how to undo the process of multiplying polynomials to factor polynomials. Students began factoring work in the 6th grade where they applied the distributive property to simplify an expression involving a variable as well as to factor out a greatest common factor of an expression involving a variable. This unit will build on this work by increasing the complexity of the expressions and the complexity of applying the distributive property. This unit will begin by teaching students the necessary conceptual understanding and procedural skill and fluency in factoring quadratics to enable them to finish the unit by solving quadratic equations. Students will also solve quadratic equations that cannot be solved by factoring requiring the introduction of completing the square and then further develop into the quadratic formula. Once these alternate methods have been established, students will reengage in solving quadratic equations and extend their work to include quadratics with irrational solutions. By the end of this unit, students will be able to select the most appropriate solution method based on the initial form of the equation.

**Louisiana Student Standards:**

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| **A.SSE.3a** | | Factor a quadratic expression to reveal the zeros of the function it defines. | |
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| **Monday** | | * **First Five: Graphing Quadratic Functions** * **Class Work: TTW complete Quiz #10 Scatterplots** * **Conclusion: Ticket Out** |
| **Tuesday** | | * **First Five: LEAP 360 Review Item** * **Class Work: TLW discuss the Quadratic Formula** * **Conclusion: Ticket Out** |
| **Wednesday** | | * **LEAP 360 Test** |
| **Thursday** | | * **LEAP 360 Test** |
| **Friday** | | * **Substitute Assignment** |

**Accommodations for Special Needs:**

* Preferential seating for students with hearing or visual impairments, and required accommodations.
* Extended time on assignments and tests for resource students and students with accommodations.
* Resource students allowed to test in resource as requested by resource teacher.
* Lesson plans, study guides, assignment outlines, and tests provided in advance to resource teachers.
* Oral, visual, and written tasks to accommodate different learning styles.
* Use of group and cooperative activities to help weaker learners.

**\*\*Abbreviations for grouping: WG=Whole Group, SG=Small Group, I=Independent\*\***

**\*\*Abbreviations for Assessment Format: I=Informal, F=Formal, A=Alternative\*\***