

Richmond Public Schools
Curriculum Framework
Grade 6 Honors (6/7)

Strand: Measurement and Geometry	
<p>6.3 The student will</p> <p>a) identify and represent integers; b) compare and order integers; and c) identify and describe absolute value of integers.</p>	
Suggested Pacing	
Related Standards	
<p>Spiral Down:</p> <p>4th Grade:</p> <ul style="list-style-type: none"> ● SOL 4.4 d ● SOL 4.5 c ● SOL 4.6 b <p>5th Grade:</p> <ul style="list-style-type: none"> ● SOL 5.4 ● SOL 5.5 ● SOL 5.6 	<p>Spiral Up:</p> <p>8th Grade:</p> <ul style="list-style-type: none"> ● SOL 8.4
Essential Questions	Common Misconceptions
<ul style="list-style-type: none"> ● How can we represent and use integers? ● How are integers used to represent real-life situations? 	<ul style="list-style-type: none"> ● Comparing/Ordering Integers: students should remember that the “least” is always “left” ● Absolute Value: when there is a negative sign outside the absolute value bars (ie. $- 7$ or $- -11$)
Understanding the Standard	Essential Knowledge and Skills
<ul style="list-style-type: none"> ● The set of integers includes the set of whole numbers and their opposites $\{\dots-2, -1, 0, 1, 2, \dots\}$. Zero has no opposite and is an integer that is neither positive nor negative. 	<ul style="list-style-type: none"> ● Model integers, including models derived from practical situations. (a) ● Identify an integer represented by a point on a number line. (a) ● Compare and order integers using a number line. (b)

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<ul style="list-style-type: none"> • Integers are used in practical situations, such as temperature (above/below zero), deposits/withdrawals in a checking account, golf (above/below par), time lines, football yardage, positive and negative electrical charges, and altitude (above/below sea level). • Integers should be explored by modeling on a number line and using manipulatives, such as two-color counters, drawings, or algebra tiles. • The opposite of a positive number is negative and the opposite of a negative number is positive. • Positive integers are greater than zero. • Negative integers are less than zero. • A negative integer is always less than a positive integer. • When comparing two negative integers, the negative integer that is closer to zero is greater. • An integer and its opposite are the same distance from zero on a number line. <ul style="list-style-type: none"> - Example: the opposite of 3 is -3 and the opposite of -10 is 10. • On a conventional number line, a smaller number is always located to the left of a larger number (e.g., -7 lies to the left of -3, thus $-7 < -3$; 5 lies to the left of 8 thus 5 is less than 8) • The absolute value of a number is the distance of a number from zero on the number line regardless of direction. Absolute value is represented using the symbol $$ (e.g., $-6 = 6$ and $6 = 6$). • The absolute value of zero is zero. 	<ul style="list-style-type: none"> • Compare integers, using mathematical symbols ($<$, \leq, $>$, \geq, $=$). (b) • Identify and describe the absolute value of an integer. (c) 						
Vocabulary	Instructional Activities Organized by Learning Objective						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; padding: 5px;">Integer</td> <td style="width: 33%; padding: 5px;">Negative</td> <td style="width: 33%; padding: 5px;">Positive</td> </tr> <tr> <td style="padding: 5px;">Absolute Value</td> <td style="padding: 5px;">Opposite</td> <td style="padding: 5px;">Deposit</td> </tr> </table>	Integer	Negative	Positive	Absolute Value	Opposite	Deposit	<p>Textbook</p> <p>Notes</p>
Integer	Negative	Positive					
Absolute Value	Opposite	Deposit					

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Withdrawal	Altitude		Resources <ul style="list-style-type: none"> ● Print ● Technology-based Station Activities
Assessment			
Cross-Curricular			Tiered Differentiation