

**(A) Lesson Context**

BIG PICTURE of this UNIT:	<ul style="list-style-type: none"> <li>• How do we analyze and then work with a data set that shows both increase and decrease</li> <li>• What is a parabola and what key features do they have that makes them useful in modeling applications</li> <li>• How do I use graphs, data tables and algebra to analyze quadratic equations?</li> </ul>		
CONTEXT of this LESSON:	<p>Where we've been</p> <p>In Lesson 3, you looked at key features of graphs of parabolas</p>	<p>Where we are</p> <p>We can look at graphs of parabolas and analyze for special features &amp; we can also start looking for RELATIONSHIPS between the graphs, the equation and the parabolas features</p>	<p>Where we are heading</p> <p>How can I use graphs of quadratic relations to make predictions from quadratic data sets &amp; quadratic models and quadratic equations</p>

**(B) Lesson Objectives:**

- Practice working with graphs and with the graphing calculators to determine the key features of parabolas
- Use these special features of the parabolas to answer contextual questions in quadratic modelling questions
- Start seeing the connection that exists between the graphs of parabolas, their features and their equations

**(C) KEY REVIEW POINTS → Main Point to Lesson 2**

One KEY POINT to Lesson 2 was →

**(D) KEY REVIEW POINTS → The TWO Main Points to Lesson 3**

The FIRST KEY POINT to Lesson 3 was →

The SECOND KEY POINT to Lesson 3 was →

**(E) Class Work to REINFORCE working with the Special Features of Parabolas**

	<a href="#">FROM NELSON 10 textbook, Chap 3.2</a> <a href="#">(page 266 – 269)</a>	<a href="#">FROM NELSON 10 textbook, Chap 3.4</a> <a href="#">(page 280 – 285)</a>
<b>(A) THE BASICS</b>	Q1,3,4,5,6,7,8,10	Q1,2,3,4,5abfgh
<b>(B) BUILDING UPON THE BASICS</b>	Q9acd, 11, 12, 14, 15	Q7adfhi, 8ace, 9abde, 10, 12
<b>(C) APPLICATIONS</b>	Q16	Q13, 14, 15, 16, 17, 19, 23

**(F) Working with Graphs of Parabolas – Connecting graphs, features & equations**

Determine the equation of the parabola graphed below

