

## Appendix 1: Implementing Common Core Standards

This unit incorporates the North Carolina Common Core Standards for Math II. Many of these standards are also included in Math I.

CCSS.Math.Content.HSA.APR.A.1 Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.

When students are confident in performing math operations with numbers, they find it easier to apply those strategies with operations involving polynomials.

CCSS.Math.Content.HSA.SSE.A.1 Interpret expressions that represent a quantity in terms of its context.\*

CCSS.Math.Content.HSA.SSE.A.2 Use the structure of an expression to identify ways to rewrite it. *For example, see  $x^4 - y^4$  as  $(x^2)^2 - (y^2)^2$ , thus recognizing it as a difference of squares that can be factored as  $(x^2 - y^2)(x^2 + y^2)$*

By learning how to rewrite integers as a product of its factors, or as a sum or difference of two numbers, students make connections to rewrite polynomials.

CCSS.Math.Content.HSN.RN.A.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents.

When applying the exponent rules to rational exponents, students will need to know how to add, subtract, and multiply fractions.

CCSS.Math.Content.HSN.Q.A.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

CCSS.Math.Content.HSN.Q.A.2 Define appropriate quantities for the purpose of descriptive modeling.

Part of analyzing a problem is to define and use the appropriate units to describe the problem which is highlighted in the problem with extremely large numbers.