

Collaborative Team: Integrated Math 3

Unit #: 1

Essential Standard: Factoring Quadratics; F.IF.8b

What is the Learning Target or Essential Question?	What Level of Thinking Does it Involve? <i>Depth of Knowledge (DOK 1-4)</i>	How will you formatively assess this learning target or response to your essential question?
I can factor Greatest Common Factor	DOK 3	$12x^2 - 8x$
I can factor perfect squares	DOK 3	$x^2 - 25$
I can factor by grouping	DOK 3	$3x^3 - 4x^2 + 9x - 12$
I can factor when A = 1	DOK 3	$x^2 - x - 12$
I can factor when A > 1	DOK 3	$2x^2 - x - 3$

Unit #: 2

Essential Standard : Complex Numbers; N.CN.1, N.CN.2, N.CN.3

What is the Learning Target or Essential Question?	What Level of Thinking Does it Involve? <i>Depth of Knowledge (DOK 1-4)</i>	How will you formatively assess this learning target or response to your essential question?
I can identify a complex number	DOK 1	$4 + 2i$
I can add and subtract complex numbers	DOK 2	$(-10 + 4i) - (7 - i)$
I can multiply complex numbers	DOK2	$(3 - 8i)(4 + 9i)$
I can create conjugate of a complex number.	DOK 1	$(5 + 6i) \Rightarrow (5 - 6i)$

Unit #: 3

Essential Standard: Higher Order Polynomials; A.APR.2, F.IF.8b

What is the Learning Target or Essential Question?	What Level of Thinking Does it Involve?	How will you formatively assess this learning target or response to your essential question?
I can factor higher order polynomials	DOK 3	$x^4 - 16$ Or $x^4 - 7x^2 + 6$
I can solve higher order polynomials	DOK 3	$x^4 - 16 = 0$ Or $x^4 - 7x^2 + 6 = 0$

Essential Standard: Dividing Polynomials; A.APR.3

What is the Learning Target or Essential Question?	What Level of Thinking Does it Involve?	How will you formatively assess this learning target or response to your essential question?
I can use long division or synthetic division to find roots of a polynomial	DOK 4	$x-2 \overline{) 2x^3 - 8x^2 + 9x - 2}$
I can use synthetic division	DOK 4	$-3 \overline{) 2 \ 3 \ -4 \ 8}$

Unit #: 4**Essential Standard** Rationals: A.APR.7

What is the Learning Target or Essential Question?	What Level of Thinking Does it Involve? <i>Depth of Knowledge (DOK 1-4)</i>	How will you formatively assess this learning target or response to your essential question?
I can add and subtract rational expressions	DOK 3	$\frac{2x + 4}{x - 1} + \frac{-4x + 5}{x + 2}$
I can multiply rational expressions	DOK 2	$\frac{x^2 + 6x + 5}{x^2 - 25} \cdot \frac{x^2 - 7x + 10}{x^2 + 3x + 2}$
I can divide rational expressions	DOK 2	$\frac{10x^2 + 42x + 36}{6x^2 - 2x - 60} \div \frac{40x + 48}{3x^2 - 13x + 10}$

Unit #: 5**Essential Standard** Radicals: A.REI.4

What is the Learning Target or Essential Question?	What Level of Thinking Does it Involve?	How will you formatively assess this learning target or response to your essential question?
I can simplify radical	DOK 2	$\sqrt{72xy^{10}z^7}$
I can solve radical equations	DOK 2	$\sqrt{x + 1} = x - 4$
I can simplify rational exponent expressions	DOK 2	$8^{\frac{2}{3}}$
I can solve rational exponent equations		$(x + 4)^{\frac{5}{2}} + 1 = 33$

Unit #: 6**Essential Standard:** Exponential and Logarithmic Functions; A.SSE.3c, A.REI.3b

What is the Learning Target or Essential Question?	What Level of Thinking Does it Involve?	How will you formatively assess this learning target or response to your essential question?
I can rewrite logarithms equations	DOK 1	$\log_2 5 = 32$
I can rewrite exponential equations	DOK 2	$2^5 = 32$
I can expand logarithmic expressions	DOK 2	$\log_4 \frac{2x}{y} = \log_4 2 + \log_4 x - \log_4 y$
I can condense logarithmic equations	DOK 2	$\log_4 2 + \log_4 x - \log_4 y = \log_4 \frac{2x}{y}$

Unit #: 7**Essential Standard:** Functions; F.BF.4, F.BF.1c

What is the Learning Target or Essential Question?	What Level of Thinking Does it Involve?	How will you formatively assess this learning target or response to your essential question?
I can create the inverse of a function	DOK 2	Given $f(x) = 3x - 7$, prove the inverse is $f^{-1}(x) = \frac{x+7}{3}$
I can do operations on functions	DOK 3	Given $f(x) = 3x + 1$ and $g(x) = 4x - 6$ Find the following: $(f + g)(x) =$ $(g - f)(x) =$ $(f \cdot g)(-3) =$ $\left(\frac{g}{f}\right)(5) =$

Unit #: 8**Essential Standard** Solving Systems using Matrices: A.REI.7

What is the Learning Target or Essential Question?	What Level of Thinking Does it Involve?	How will you formatively assess this learning target or response to your essential question?
I can incorporate technology to solve a system of equations using a single matrix.	DOK 2	Using your calculator, find the reduced row echelon form of a system of equations.