	Algebra II	Algebra II/Trig
CURRICULUM	Focus on fundamental Algebra II skills with plenty of time for learning.	Additional topics (Matrices, Complete Course of Trigonometry, Conic Sections) projects, explorations and extensions are added into the same curriculum, requiring a faster pace of learning for Algebra II topics
ALGEBRA 1 GEOMETRY SKILLS	Support/reteaching/reminders are given for Algebra I and Geometry concepts.	Students must know/remember major skills from Algebra 1 and Geometry with little support
SPIRALING	Reminders and support are provided when curriculum spirals back to previously learned material	Students are expected to remember prior topics/information throughout the year without prompting
ALGEBRA AND GEOMETRY INTEGRATION	Algebra I skills are reviewed before more challenging Algebra II skills are presented.	Algebra 1, Geometry, and Algebra II skills are strongly integrated with the intention of preparing students for Precalculus Honors.
PROBLEM-SOLVING	Multi-step, challenging, problems are supported with instruction and review.	Emphasis on higher-level, complex, multi-step and otherwise challenging problems
LEVEL OF ABSTRACTION	Symbolic language is supported; problems and exercises are more concrete	Fluent and accurate use of symbolic language is expected; problems and exercises, though based in concrete explorations, integrate abstract calculations seamlessly
STUDENT LEARNING STYLE	Teacher provides support for study skills and proper use of time, as well as support for written and verbal instructions.	Students are expected to self-pace, self-direct and self-advocate; students should be able to follow written and verbal instructions without support or reminders

SAMPLE PROBLEM #1 ***(difference in skill level)***	$$\frac{4}{x}=\frac{3x}{x-3}$$ $$4(x-3)=3x^2$$ $$4x-12=3x^2$$ $$3x^2-4x+12=0$$ $$x=\frac{4\pm\sqrt{16-144}}{6}$$ $$x=\frac{4\pm\sqrt{-128}}{6}$$ $$x=\frac{4\pm 8i\sqrt{2}}{6}$$ $$x=\frac{2\pm 4i\sqrt{2}}{3}$$ <u>Skills needed:</u> -Clearing Fractions -Solving Quadratics	$$\frac{x+2}{x^2-x-6}=3-\frac{4}{x-3}$$ $$\frac{x+2}{(x-3)(x+2)}=\frac{3(x-3)-4}{x-3}$$ $$\frac{x+2}{(x-3)(x+2)}=\frac{3x-13}{x-3}$$ $$(x+2)(x-3)=(3x-13)(x-3)(x+2)$$ $$(x+2)(x-3)-(3x-13)(x-3)(x+2)=0$$ $$(x+2)(x-3)\big(1-(3x-13)\big)=0$$ $$x+2=0 \quad x-3=0 \quad -3x+14=0$$ $$\cancel{x=-2} \quad \cancel{x=3} \quad x=\frac{14}{3}$$ <u>Skills needed:</u> -Factoring -Clearing Fractions -Solving Quadratics
SAMPLE PROBLEM #2 **(*difference in skill and support level*)**	Solve $8=2^{x+1}$ $$2^3=2^{x+1}$$ $$3=x+1$$ $$x=2$$	Solve $\sqrt{\frac{9^{x+3}}{27^x}}=81$ $$\sqrt{\frac{3^{2(x+3)}}{3^{3x}}}=3^4$$ $$\frac{3^{2(x+3)}}{3^{3x}}=3^8$$ $$3^{2x+6-3x}=3^8$$ $$3^{6-x}=3^8$$ $$6-x=8$$ $$x=-2$$.