TUSD CURRICULUM MAP- Algebra Academy

		Quarter 1
AZCCR Standards	**Selected Readings of Complex Texts**	**Big Ideas**
A1.F-IF.C.9 **A1.N-Q.A.2** **A1.A-CED.A.1** **A1.A-SSE.A.1** **A1.A-CED.A.2** **HSScience S1.C1.PO2**	NA	• Variation occurs in the world all around us. • Three types of relationships between variables are linear, exponential and quadratic relationships. • There are many different ways to represent the relationship between two variables.

Assessments	Instructional Strategies
Pre-test Thinking With Patterns Presentation Algebraic Representations Quiz Bungee Barbie Presentation on Justification of Cord Length	**Reciprocal Teaching** **Jigsaws** **Sentence Frames** **Socratic Seminar Huddles** **Slates** **Manipulatives** **Structured Academic Talk** **Think-Pair-Share** **Wagon Wheel** **Anchor Charts** **Metacognitive Markers** **Send a Scout** **Choral Reading** **Total Physical Response**

		Quarter 2
AZCCR Standards	**Selected Readings of Complex Texts**	**Big Ideas**
A1.F-IF.C.9 **A1.N-Q.A.2** **A1.A-CED.A.1** **A1.F-IF.B.4** **A1.F-LE.A.3** **A1.F-IF.A.2** **HS Science S1.C2.PO5** **HS Science S1.C4.PO2**	NA	• If the 1st difference in consecutive dependent variable values is constant, the relationship is linear. If the 2nd difference is constant it is quadratic. • Some representations do a better job at showing what is significant or not significant about a relationship between variables depending on what one wants to show. • In a scientific experiment it is important to control one of the variables.

Assessments	**Instructional Strategies**
The Perfect Throw Desmos Lesson Roller Coaster of Doom Presentation Catapult Variable Experiment Design Catapult Competitions	**Metacognition Journal** **Reciprocal Teaching** **Stay and Sway (during presentations)** **Slates** **Manipulatives** **Structured Academic Talk** **Think-Pair-Share** **Graffiti Wall** **Choral Reading** **Anchor Charts**

		Quarter 3
AZCCR Standards	**Selected Readings of Complex Texts**	**Big Ideas**
A1.F-IF.C.9 **A1.N-Q.A.2** **A1.A-CED.A.1** **A1.F-LE.A.1** **A1.F-LE.A.2** **A1.F-LE.A.3** **HS Science S1.C2.PO3** **HS ScienceS1.C2.PO4**	NA	• Exponential relationships multiply by a common ratio to get to the next dependent variable value. • Exponential growth will always eventually exceed linear growth. • It helps to vary the independent variable in consistent increments when designing an experiment.

Assessments	**Instructional Strategies**
• Isaac Newton Quiz • Launch Angle and Water Level Simulation Presentations • Buoyancy of potato on Make Your Whale Float Lesson • Spreadsheet on Make Your Own Theme Park	**Metacognition Journal** **Reciprocal Teaching** **Stay and Sway (during presentations)** **Slates** **KWL Charts** **Structured Academic Talk** **Think-Pair-Share** **Parking lot** **Choral Reading** **Anchor Charts**

		Quarter 4
AZCCR Standards	**Selected Readings of Complex Texts**	**Big Ideas**
A1.F-IF.C.9 **A1.N-Q.A.2** **A1.A-CED.A.1** **A1.S-ID.C.7** **A1.S-ID.C.8** **A1.S-ID.C.9** ***HS Science S1.C3.PO1*** **HS Science S1.C3.PO2** **HS Science S1.C4.PO3**	NA	• Lines could be used to make predictions in scatterplots when the plots have a correlation. • The stronger the correlation the more accurate extrapolations and interpolations can be. • Simulation and research can inform experimentation by providing focus.

Assessments	**Instructional Strategies**
Post-Test Final Water Bottle Rocket Competition Presentation	**Data Talks and Goal Setting** **Anchor Charts** **Chunking**