

Wyoming Department of Education Required Virtual Education Course Syllabus

Park County School District # 1

Program Name	Park #1 Online	Content Area	Math
Course ID	OL5478	Grade Level	9th-12th
Course Name	FVS Honors Geometry (S2)	# of Credits	0.5
SCED Code	02072H0.5022	Curriculum Type	Math

COURSE DESCRIPTION

Semester-long course purchased through Florida Virtual and used for our district students. Geometry is everywhere, not just in pyramids. Engineers use geometry to build highways and bridges. Artists use geometry to create perspective in their paintings, and mapmakers help travelers find things using the points located on a geometric grid. Throughout this course, students travel a mathematical highway illuminated by spatial relationships, reasoning, connections, and problem solving.

09.05 Honors Extension Activity

• CCSS Math Content GSC.G.A.4: Construct a tangent line from a point outside a given circle to the circle.

WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	BENCHMARK (Standard/Indicator) Use the Standards and Benchmarks as Spreadsheets
WY.MP	Mathematical Practices
	Make sense of problems and persevere in solving them, Reason abstractly and quantitatively, Construct viable arguments and critique the reasoning of others, Model with mathematics, Use appropriate tools strategically, Attend to precision, Look for and make use of structure, Look for and express regularity in repeated reasoning
WY.N	Number and Quantity
N-RN N-Q N-VM	The Real Number System, Quantities, Vector and Matrix Quantities
WY.A	Algebra
A-CED A-REI	Creating Equations, Reasoning with Equations and Inequalities
WY.F	Functions
F-IF F-BF F-LE F-TF	Interpreting Functions, Building Functions, Linear and Exponential Models, Trigonometric Functions
WY.G	Geometry
G-C G-GPE G-GMD G-MG	Congruence, Similarity, Right Triangles, and Trigonometry, Circles, Expressing Geometric Properties with Equations, Geometric Measurement and Dimension, Modeling with Geometry

SCOPE AND SEQUENCE

UNIT OUTLINE	STANDARD#	OUTCOMES OBJECTIVES/STUDENT CENTERED GOALS
06.01 Using the Coordinates	MP.5 G.GPE.L.4 G.GPE.L.5 G.GPE.L.6	How do you use coordinates?
06.02 Slope	MP.5 G.GPE.L.5	What are slopes?
06.04 Coordinate Applications	MP.5 G.GPE.L.4 G.GPE.L.5	What are coordinate applications?
07.01 Solving Right Triangles	MP.5 G.SRT.E.3 G.SRT.F.4	How do you solve right angles?
07.02 Trigonometric Ratios	MP.5 G.SRT.G.7 G.SRT.G.8	What are trigonometric ratios?
07.04 Applying Trigonometric Ratios	MP.5 G.SRT.H.9	How to you apply trigonometric ratios?
08.01 Formulas	MP.5 A.CED.G.4 G.GMD.M.1	What are formulas?
08.02 Application of Volume	MP.5 G.MG.O.1 G.MG.O.2	What are the applications of volume?
08.04 Density	MP G.MG.O.2	What is density?
08.05 3-D Figures	MP.5 G.GMD.M.2 G.MGD.M.3	What are 3-D figures?
09.01 Properties of a Circle	MP.5 G.CO.A.4 G.C.I.1 G.C.I.2	What are the properties of a circle?
09.02 Inscribed and Circumscribed Circles	MP.5 G.C.I.3	What are inscribed and circumscribed circles?
09.04 Applications of Circles	MP.5 G.CO.A.4 G.C.I.2 G.C.I.3 G.C.I.4	What are the applications of circles?

09.05 Honors Extension Activity	MP.5 G.CO-all G.SRT-all G.C-all G.GPE-all G.GMD-all
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**09.05 Honors
Extension
Activity**

CCSS.Math.Content.HSG.C.A.4: Construct a tangent line from a point outside a given circle to the circle.

CCSS.Math.Content.HSG.GMD.A.2: Give an informal argument using Cavalieri's principle for the formulas for the volume of a sphere and other solid figures.

CCSS.Math.Content.HSG.GPE.A.2: Derive the equation of a parabola given a focus and directrix.

CCSS.Math.Content.HSG.GPE.A.3: Derive the equations of ellipses and hyperbolas given the foci and directrices.

CCSS.Math.Content.HSG.SRT.D.10: Prove the Laws of Sines and Cosines and use them to solve problems.

CCSS.Math.Content.HSG.SRT.D.11: Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).