Mathematics Class Slides

Bronx Early College Academy

Chris Huson

24 September 2018

2.1 Midpoint definition & calculations, 16 Sept

2.2 Laptops: Pupilpath & Geogebra equilateral triangle, 17 Sept

2.3 Triangle area formula, 18 Sept

2.4 Solving for a missing parameter, 19 Sept

2.5 Perimeter; Complementary & supplementary angles, 20 Sept

2.6 Area of a square, compound shapes, 23 Sept

2.7 Laptops: Construction comparison in MS Word, 24 Sept

2.8 Modeling review, drawings and equations, 25 Sept

1b.3 Drui: Vertical angles. Wednesday Sept 26

1b.4 Drui: Construct perpendicular bisector. Thursday Sept 27

1b.5 Drui: Constuct angle bisector. Friday Sept 28

GQ: How do we bisect a line segment?

CCSS: HSG.CO.A.1 Know precise geometric definitions 2.1 Monday 16 Sept

Segment addition and measurement practice

1. Equilateral triangle construction
2. Measuring and calculating length
3. Segment addition situations

Lesson: Definitions: midpoint, bisect, trisect, perpendicular

Test corrections / analysis
Construction: Perpendicular bisector
Demonstration: Geogebra equilateral triangle

Homework: Problem set 2-1

GQ: How do we use computer technology?

CCSS: MP4 Use technology appropriately 2.2 Tuesday 17 Sept

Do Now: Boot up laptop, Pupilpath, geogebra.org > geometry

1. Always use the laptop with your number
2. Write down your Geometry grade (from Pupilpath) in your notebook
3. Log into your personal email
4. Open geogebra.org > geometry
5. Explore & play!

Lesson: Geogebra equilateral triangle construction
"Lids down" for group focus
Return laptops to proper slot number, charging cable

Homework: Parent Pupilpath checklist

GQ: How do we present mathematical work?

CCSS: HSG.CO.D.12 Congruence, Make geometric constructions 2.2 Tuesday 17 Sept

Criteria for construction projects

1. Complete and correct construction
2. MLA layout: First & last name / Dr. Huson / 10.x Geometry / 17 September 2019
   Title centered (no underlining)
3. Precise, elegant, mathematical aesthetic
4. Spicy: Steps written with proper notation

Grading policy: full credit or redo

(collect exams and projects in your personal classroom binder)

GQ: How do we calculate the area of a triangle?

CCSS: HSG.CO.A.1 Know precise geometric definitions 2.3 Wednesday 18 Sept

Bisector and measurement practice

1. Midpoint calculations
2. Measuring an obtuse angle
3. Drawing a rectangle
4. Half rectangle areas

Lesson: Triangle area $A_{\triangle} = \frac{1}{2}bh$

Midpoint average method, vector method

Homework: Problem set 2-3

GQ: How do we solve for a missing value?

CCSS: HSG.CO.A.1 Know precise geometric definitions 2.4 Thursday 19 Sept

Bisector and area practice

1. Construct a perpendicular bisector
2. Midpoint calculations
3. Triangle area
4. Segment addition

Lesson: Construct a perpendicular through a point on a line

Solving for an input parameter value

Homework: Problem set 2-4

GQ: How do we calculate perimeter?

CCSS: HSG.CO.A.1 Know precise geometric definitions 2.5 Friday 20 Sept

Do Now Quiz

1. Construct a perpendicular bisector
2. Midpoint calculations
3. Triangle area
4. Segment addition

Lesson: Perimeter; Complementary & supplementary angles

Homework: Problem set 2-5

GQ: How do we measure combinations of shapes?

CCSS: HSG.CO.A.1 Know precise geometric definitions 2.6 Monday 23 Sept

Area and perimeter practice

1. Midpoint calculations, distance
2. Perimeter
3. Angle measures
4. Construct a perpendicular through a point on a line

Quiz review
Construct a perpendicular through a point not on a line

Lesson: $A_{square} = s^2$

Compound shapes
Microsoft Word brief

Homework: Problem set 2-6

GQ: How do we use computer technology?

CCSS: MP4 Use technology appropriately 2.7 Tuesday 24 Sept

Do Now: Boot up laptop, Pupilpath, geogebra.org > geometry

1. Check pupilpath; Write your Geometry grade in your notebook
   Parents participating in curriculum night earn credit
2. Open Microsoft Word, draft MLA header
   (12 point Times New Roman font, double space)
3. Open geogebra.org > geometry
4. Construct an equilateral triangle

Lesson: Pasting graphics into Microsoft Word
Write a short paper comparing our first four constructions

Homework: Problem set 2-7

GQ: How do we measure combinations of shapes?

CCSS: HSG.CO.A.1 Know precise geometric definitions 2.8 Wednesday 25 Sept

Area and perimeter practice

1. Perimeter & area
2. Solving for a parameter
3. Fraction addition, negative numbers

Quiz corrections and re-quizzing

Lesson: Modeling midpoint, segment addition, complementary & supplementary angle situations

Homework: Pretest, test Friday

GQ: How do we classify angle pairs?

CCSS: HSG.CO.A.1 Know precise geometric definitions 1b.3

Do Now: Construction practice and review

1. Given $\overline{AB}$, construct a congruent line segment
2. Given $\overline{DE}$, construct an equilateral triangle

1-5 Exploring Angle Pairs pp. 34-37
Classwork problems 7-26 odds pp. 38
Construct a perpendicular bisector

Homework: Angle pair practice

GQ: How do we classify angle pairs?

CCSS: HSG.CO.A.1 Know precise geometric definitions 1b.4

Do Now: Angle pair practice. Show steps, including the check.

1. Given two supplementary angles: $m\angle 1 = 50$, $m\angle 2 = x$. Find x.
2. Given two complementary angles: $m\angle 1 = x + 10$, $m\angle 2 = x + 20$. Find $m\angle 1$.
3. Given two vertical angles: $m\angle 1 = 3x + 10$, $m\angle 2 = 55$. Find x.

1-5 Exploring Angle Pairs pp. 34-37
Classwork problems 8-30 evens pp. 38-39
Construct a perpendicular bisector

Homework: Angle pair practice

GQ: How do we do classical constructions?

CCSS: HSG.CO.D.12 Congruence, Make geometric constructions 1b.5

Do Now: Angle pair practice

Constructions due today: Complete, correct, precise, elegant

Standard header. (you may combine constructions on same page)

1. Equilateral triangle (you may combine on same page)
2. Congruent segments
3. Perpendicular bisector
4. New: Angle bisector
5. Spicy: Flower design p. 42

Classwork problems 3-25 odds pp. 41

Homework: Angle pair practice