# Mathematics Class Slides Bronx Early College Academy

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24 September 2018

- BECA / Dr. Huson / Geometry Unit 1
  - 2.1 Midpoint definition & calculations, 16 Sept
  - 2.2 Laptops: Pupilpath & Geogebra equilateral triangle, 17 Sept
  - 2.3 Triangle area formula, 18 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
- 1b.6 Drui: Midpoints. Monday Oct1
- 1b.8 Drui: Midpoints. Wednesday Oct 3
- 1b.9 Drui: Review. Thursday Oct 4

## 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
- 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 Monday 17 Sept

#### Criteria for construction projects

- 1. Complete and correct construction
- 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 classify angle pairs?

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

1b.3

## Do Now: Construction practice and review

- 1. Given 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

GQ: How do we calculate the midpoint of a segment?

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

1b.6

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

Binder project: Exam, corrections; best of each construction Review test corrections problems, handout Deltamath review, Skedula check (HW) Midpoint calculations: average method, vector method Homework:

Pretest, Skedula check in notebook

GQ: How do we calculate the midpoint of a segment?

CCSS: HSG.CO.A.1 Know precise geometric definitions 1b.6

#### DeltaMath review

- 1. Finding slope graphically
- 2. Constructing an Equilateral Triangle

Hint: Start tasks in order Complete only the required number of a problem type If making multiple errors, move to next task type

Let me know if you can not access at home

GQ: How do we calculate the midpoint of a segment?

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

1b.8

Do Now: Mixed Review #39-47 p. 48. Loose leaf paper

Binder project: Exam, corrections; best of each construction Review test corrections problems, handouts Midpoint calculations p. 50-51, #6-21 p. 54

Homework: Pretest, Skedula check in notebook

GQ: How do we review for a test?

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

1b.9

Do Now: Mixed Review #65-68 p. 56. Loose leaf paper

Pretest review

Homework: Study for exam tomorrow