

# Mathematics Class Slides

## Bronx Early College Academy

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24 September 2019

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

2.9 Test review, 26 Sept

2.10 Unit exam Distance & midpoints, 27 Sept

## 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](https://www.geogebra.org/m)

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](https://www.geogebra.org/m)
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:  $A_{\text{square}} = s^2$

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](http://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](http://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 prepare for tomorrow's exam?

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

2.9 Thursday 26 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: Test practice, **test tomorrow**

## GQ: How do we use measure in geometry?

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

2.10 Friday 27 Sept

Assessment: Unit exam

Homework: Holiday packet