# Honors Geometry: The Mathematics of Shape 

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## Curriculum

Topics covered through the course include analyzing geometric figures, the rules of logic and proof, geometric constructions, parallel and perpendicular lines, congruence and transformations, properties and theorems about triangles and quadrilaterals, similarity, right triangle trigonometry, three-dimensional geometry, volume and modeling, properties of circles, and geometry in the coordinate plane.

## Supplies

- 3 -ring binder which always contains:

3 tab dividers: Handouts, Homework, Assessments bound 1-subject notebook only for Geometry
loose leaf notebook and graph paper

- Colored pencils; regular writing pencils
- Bring textbook to class every day
- TI-84+ Calculator (in-class set available) ; if you have an iOS/Android device, please install the Desmos app
- Protractor and compass for class and home use (in-class set available)
-**5 dollar math department fee** Preferably paid online.
Taking Notes: Do not use loose-leaf notebook paper for notes. Take geometry notes in a bound 1 -subject notebook that you do not use for any other class. This will help you keep organized. You will occasionally write notes in your consumable, paperback textbook, and there is room in the margins for this purpose.


## Rules

1. Always do your homework. Your learning is your responsibility.
2. Arrive to class on time and prepared with materials, homework, and an open mind.
3. Show respect to everyone. Lower your volume when directed.
4. Limit your time outside of class. Agendamate required.
5. No phones or headphones. Do not use your phone calculator in the classroom. Handbook rules enforced.
6. Use only your assigned TI84 calculator (or your own).
7. No food and no drinks except water. I will make you throw it away.
8. Keep your desk and surrounding area clean. There should be nothing on the floor/desk when you leave.
9. Exercise proper safety behavior when in the eLab.
10. Don't be afraid to ask questions.

A typical day
Arrive to class on time with your supplies as listed above. Collect your calculator and take your seat. Examine learning target and copy homework into Agendamate. Look over homework or start warmup before bell rings. When bell rings and a chime sounds, rise, greet the teacher ("Good morning/afternoon, Mr. Mohyuddin"), take a deep breath, and be seated.

After the warm-up, I display selected solutions to the homework and call for questions. You self-assess your work using a red pen or highlighter, marking incorrect answers and making comments as needed. You place your homework in the correct part of your binder. After this, we randomize our seats and begin our lesson: some lessons are direct instruction during which you take detailed notes; others are group activities where engagement and involvement is required; and others are inquiry activities where a new problem is presented and the skills to solve it are developed as you work. When the lesson is over, there may be time to work on practice problems or re-take an assessment. At the end of a class, we take a moment to summarize today's learning and clean up the room before the bell rings to dismiss. 4B: please put chairs up when bell rings to help custodians.

## Grades

I use a system called Standards Based Grading. Your grade is entirely based on mastery of individual learning targets, which Tennessee and HCDE specify and over which the EOC will test. The most recent score on a skills assessment is what is entered in PowerSchool. You may retake an assessment only if you complete the assigned homework for that standard. Retakes are available in directed studies and after school office hours on Tuesdays. You can retake every grade in this class until you earn a passing grade. It works like this:

1. During a particular week in class, we cover skills $\mathrm{X}, \mathrm{Y}$, and Z during lessons and activities. Homework is assigned that goes over these skills.
2. Weekly or biweekly, we will have an assessment that covers these (and other) skills. They are graded on a scale of $0-4$ (outlined below). Each skill is scored separately, so there will be a score for X, a score for Y, a score for Z, and a score for W (an older skill being assessed again). The entire assessment may only be 7-8 problems long, though others may be longer. (Usually 1 or 2 questions per standard.)
3. If you score less than a 3 , you are required to re-take part of the assessment.
4. Skills are assessed twice and the second grade takes priority: If you score a 4 on a skill the first time it is assessed, but on an assessment a month later you score a 2 on that same skill, the grade is changed to a 2 . It is then your responsibility to re-assess until you pass. The ticket for attempting a retake is proof that the aligned homework is completed.
Score
Grade in PS
4: Advanced (Complete understanding of the concept. Can apply this concept to situations beyond what is expected.) 96
3: Proficient (Understanding of the concept possibly with minor errors.) 86
2: Basic (Some understanding of the concept with major errors. Needs to remediate this concept.) 66
1: Below Basic (Does not have an understanding of this concept. Intense remediation is necessary.) 50
0 : No attempt was made.
If a student scores a 4 on their first two assessments, they will receive a 5 (or 100) for that standard.

This seems like a more complicated system, but instead of a single test you have more opportunities to show mastery and it is you, not the teacher, who controls the grade. Bottom line: if you learn the material, your grades will show it. More info: http://mgeo.weebly.com/sbg

## Assessments

Tests are administered once a week or sometimes biweekly as the material allows. They are always announced with ample planning time. Remember that an existing grade may change, as your most recent score on a skill is what is reflected. Reassessments require proof of homework completion: this means showing your work, not just the answers. A list of what homework goes with which skill is kept in the classroom and also in PowerSchool.

## Absences/Class Website

The class website, mgeo.weebly.com , has a detailed breakdown of what material is covered each day in class along with digital versions of notes, handouts and numerous hand-picked (and sometimes, hand-created) help resources aimed at helping you. This is also where I post solutions to practice tests. You are expected to visit the class website to get the missed assignment and other materials. It is updated every day you have class. Very few extra copies of handouts are kept in class as you are expected to print copies of materials you have misplaced. Again, it is updated every day just for you.

## Et cetera

I will be setting up a peer tutoring system in directed studies. If you want to be a tutor or receive tutoring, ask me for an application. I am also in charge of our monthly on-campus mathematics contests which take place during directed studies. Tutoring from me is available during office hours, Tuesdays from 4-5p. Be sure your ride is here at 5 p sharp. This is also a good time to re-assess.

Student Survey link: http://bit.ly/geoinfo18
Family Survey link: http://bit.ly/parentgeo18
Easy to complete on computers, tablets, and phones!

