

# Honors Geometry: The Mathematics of Shape

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(A blocks)

(B blocks)

ebook: hamiltontn.springboardonline.org [class code: JRGDSU]

calculator:

## 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:

textbook

bound 1-subject notebook

loose leaf notebook and graph paper

3 tab dividers: Handouts, Homework, Assessments

ruler

- Colored pencils; regular writing pencils

- 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 (some in-class sets 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. Education is a shared responsibility, and this is your part of it.
2. Show respect to everyone. Lower your volume when directed.
3. Bring your textbook with you every day. No excuses.
4. No more than 3 persons may leave the room for bathroom/water in a class period. Do not use up a slot from someone who needs it because you are bored or want to take a break. 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. Don't be afraid to ask questions.
10. Think!

## A typical day

Arrive to class on time with your supplies as listed above. Collect your calculator and take your seat. Copy down goals and homework into Agendamate. Look over last night's homework or work on warm up in notebook before bell rings. When bell rings and a chime sounds, rise, greet the teacher (“Good morning/afternoon, Mr. Mohyuddin”), and take a seat.

After the warm-up, I display selected solutions to the homework and call for questions. You self-assess your work, marking incorrect answers and making comments as needed. You place your homework in the correct part of your binder. After this, we begin our lesson which is usually aligned to a section in the textbook but may instead focus on a handout or other resource. Some lessons are direct instruction during which you take detailed notes; others are group activities where engagement and involvement is required; and others are investigations 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 homework 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. 4A: Please put your chairs atop the desks to assist the custodians when they clean.

## Grades

I use a system called Standards Based Grading. Your grade is 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. Reassessments are usually done during directed studies. It works like this:

1. During the week in class, we cover skills X, Y, and Z during lessons and activities. Homework is assigned that is aligned with these particular skills.
2. The following Monday (usually), we will have an assessment that covers these (and other) skills. They are graded on a scale of 0-4 (outlined below). Each standard 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 standard being assessed again). These assessments may only be 4-5 problems long, though others may be longer.
3. If you score less than a 3, you are required to re-take the assessment (in directed studies, before or after school). Mastery of a skill is achieved only when you have scored two consecutive 3's or higher. 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 standard, the grade in Powerschool will be a 2. It is then your responsibility to re-assess until you score two straight passing grades. Every standard will be assessed multiple times throughout the quarter.

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.	0

If a student scores a 4 on their first two assessments, s/he 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

Standards-based tests will usually be given every Monday. You will know in advance about date changes. Remember that a grade in Powerschool may change, as your most recent score on a skill is what is entered. Re-assessments require proof of homework completion: this means showing your work, not just the answers.

## Absences/Class Website

The class website, [mgeo.weebly.com](http://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. Some extra copies are kept in class. You are expected to visit the class website to get the missed assignment and other materials. It is updated every day you have class.

## 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 after school: stay tuned for a specific schedule. This is also a good time to re-assess.

Student Survey link: <http://bit.ly/geo167>

Family Survey link: <http://bit.ly/parentgeo>

Easy to complete on computers, tablets, and phones!