



August 2013

Great Expectations for 8th Grade Math

Welcome from Ms. Fletcher

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Welcome to 8th grade math! I am very excited to have your son/daughter again. I know we are going to have another great year. The class will be structured similar to last year but with a few changes.

First, all final assessments will be project based. The class really loved this aspect of 7th grade math. Our first main project will be to create a scale drawing of a room of their choosing. The second project will be our stock market project. There will be more information to come on both of these projects.

Second, quizzes will be completed through www.quizegg.com. Quizegg is an online tool where I can post quizzes and practice quizzes throughout the year. During class, your child will log on and complete either the quiz or practice quiz. For the practice quiz, immediate feedback will be given so your son/daughter will know if they correctly answered the question. If they missed the question, the correct solution will be shown. Your son/daughter will have the opportunity to take the practice quiz several times as they feel they need the practice. During the actual quiz, no feedback will be given. The student will need to work out the problems on notebook paper, and the paper will need to be turned in once the quiz is completed. The answers will be directly sent to my email. If the student misses a problem, I will then look at how they computed their answer to determine if partial credit is applicable.

Third, some of our lessons will be completed in a little bit of a different style. I will be utilizing the flipped classroom throughout the year. Not every lesson will be done in the flipped style. If you have not heard about a flipped classroom, turn the page and read the article "7 Things You Should Know About Flipped Classrooms". This will give you insight into this teaching style.

Fourth, we will be using www.sophia.com as our class discussion board. After our flipped lesson, your son/daughter will need to log onto sophia to answer a question or two. This is a controlled site and only students who are admitted into our discussion board can participate. We will be setting up all accounts the first week of school.

Please remember to consult the class website for updates, assignments, and announcements. The website: <http://msfletchermathclass.weebly.com>

As always, if you ever have any questions please email me at kfletcher@briarwoodschool.org.



7 Things You Should Know About Flipped Classrooms

1. What is it?

The flipped classroom is a pedagogical model in which the typical lecture and homework elements of a course are reversed. Short video lectures are viewed by students at home before the class session, while in-class time is devoted to exercises, projects, or discussions. The video lecture is often seen as the key ingredient in the flipped approach, such lectures being either created by the instructor and posted online or selected from an online repository. While a prerecorded lecture could certainly be a podcast or other audio format, the ease with which video can be accessed and viewed today has made it so ubiquitous that the flipped model has come to be identified with it. The notion of a flipped classroom draws on such concepts as active learning, student engagement, hybrid course design, and course podcasting. The value of a flipped class is in the repurposing of class time into a workshop where students can inquire about lecture content, test their skills in applying knowledge, and interact with one another in hands-on activities. During class sessions, instructors function as coaches or advisors, encouraging students in individual inquiry and collaborative effort.

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2. How does it work?

There is no single model for the flipped classroom—the term is widely used to describe almost any class structure that provides prerecorded lectures followed by in-class exercises. In one common model, students might view multiple lectures of five to seven minutes each. Online quizzes or activities can be interspersed to test what students have learned. Immediate quiz feedback and the ability to rerun lecture segments may help clarify points of confusion. Instructors might lead in-class discussions or turn the classroom into a studio where students create, collaborate, and put into practice what they learned from the lectures

they view outside class. As on-site experts, instructors suggest various approaches, clarify content, and monitor progress. They might organize students into an ad hoc workgroup to solve a problem that several are struggling to understand. Because this approach represents a comprehensive change in the class dynamic, some instructors have chosen to implement only a few elements of the flipped model or to flip only a few selected class sessions during a term.



Pd. 1	8:00-8:50
Pd. 2	8:55-9:45
Pd. 3	9:50-10:40
Pd. 4	10:45-11:35
Lunch	11:40-12:05
Pd. 5	12:10-1:00
Pd. 6	1:05-1:55
Pd. 7	2:00-2:50

Fall Holiday Schedule

Labor Day	Sept. 2nd
Columbus Day	Oct. 11th-14th
Thanksgiving	Nov. 27th-29th
Christmas	Dec. 23rd-Jan.3rd

3. Who's doing it?

A growing number of higher education individual faculty have begun using the flipped model in their courses. At Algonquin College, a video production class has been using this model to explain the workings of editing software, a procedure that is notoriously difficult to explain in a standard lecture. Short tutorial video lectures let students move at their own pace, rewind to review portions, and skip through sections they already understand, meaning students come to class able to use the software and prepared to do creative projects with their peers. A particularly successful example of a blended and flipped class in accounting at Penn State accommodates 1,300 students. In-class time is used for open discussion, a featured guest speaker, or hands-on problem solving where instructor support is supplemented by student assistants. At Harvard University, one physics professor not only employs the flipped model but has also developed a correlative site, Learning Catalytics, that provides instructors with free interactive software enabling students to discuss, apply, and get feedback from what they hear in lecture.

4. Why is it significant?

In a traditional lecture, students often try to capture what is being said at the instant the speaker says it. They cannot stop to reflect upon what is being said, and they may miss significant points because they are trying to transcribe the instructor's words. By contrast, the use of video and other prerecorded media puts lectures under the control of the students: they can watch, rewind, and fast-forward as needed. This ability may be of particular value to students with accessibility concerns, especially where captions are provided for those with hearing impairments. Lectures that can be viewed more than once may also help those for whom English is not their first language. Devoting class time to application of concepts might give instructors a

Tools For Success



Calculator
Computer
Book
Pencil
Notebook Paper
Handouts
Quizegg Account
Sophia Account

better opportunity to detect errors in thinking, particularly those that are widespread in a class. At the same time, collaborative projects can encourage social interaction among students, making it easier for them to learn from one another and for those of varying skill levels to support their peers. Lectures that can be viewed more than once may also help those for whom English is not their first language. Devoting class time to application of concepts might give instructors a better opportunity to detect errors in thinking, particularly those that are widespread in a class. At the same time, collaborative projects can encourage social interaction among students, making it easier for them to learn from one another and for those of varying skill levels to support their peers.

5. What are the downsides?

The flipped classroom is an easy model to get wrong. Although the idea is straightforward, an effective flip requires careful preparation. Recording lectures requires effort and time on the part of faculty, and out-of-class and in-class elements must be carefully integrated for students to understand the model and be motivated to prepare for class. As a result, introducing a flip can mean additional work and may require new skills for the instructor, although this learning curve could be mitigated by entering the model slowly.

Students, for their part, have been known to complain about the loss of face-to-face lectures, particularly if they feel the assigned video lectures are available to anyone online. Students with this perspective may not immediately appreciate the value of the hands-on portion of the model, wondering what their tuition brings them that they could not have gotten by surfing the

web. Those who see themselves as attending class to hear lectures may feel it is safe to skip a class that focuses on activities and might miss the real value of the flip. Finally, even where students embrace the model, their equipment and access might not always support rapid delivery of video.

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6. Where is it going?

As the flipped class becomes more popular, new tools may emerge to support the out-of-class portion of the curriculum.

In particular, the ongoing development of powerful mobile devices will put a wider range of rich, educational resources into the hands of students, at times and places that are most convenient for them. Greater numbers of courses will likely employ elements of the flipped classroom, supplementing traditional out-of-class work with video presentations and supporting project-based and lab-style efforts during regular class times. At a certain level of adoption, colleges and universities may need to take a hard look at class spaces to ensure they support the kinds of active and collaborative work common in flipped classes.

7. What are the implications for teaching and learning?

The flipped classroom constitutes a role change for instructors, who give up their front-of-the-class position in favor of a more collaborative and cooperative contribution to the teaching process. There is a concomitant change in the role of students, many of whom are used to being cast as passive participants in the education process, where instruction is served to them. The flipped model puts more of the responsibility for learning on the shoulders of students while giving them greater impetus to experiment. Activities can be student-led, and communication among students can become the determining dynamic of a session devoted to learning through hands-on work. What the flip does particularly well is to bring about a distinctive shift in priorities— from merely covering material to working toward mastery of it. <http://net.educause.edu/ir/library/pdf/eli7081.pdf>

How could I get my A?

Grades will be determined as follows:

Classwork	25%
Homework	20%
Tests	45%
Organization	10%

Quarter 1	45%
Quarter 2	45%
First Semester Exam	10%
Quarter 3	45%
Quarter 4	45%
Second Semester Exam	10%