

# Math Academy Parent Handbook

## The Weekly Math Academy Routine

- Lectures are intended to be watched on Mondays and Wednesdays. The lectures are “active”, meaning that the students are frequently asked to do problems, or think about something. The lectures are recorded, which allows students to pause the video and take exactly how much time they need. The recordings of the lectures are usually between 30 and 45 minutes long.
- Student work group meetings take place live twice per week, usually on Tuesday and Thursday. The group meetings are coordinated and supervised by a parent or the class teacher (in the case of a school). For the older grades (8-12), the students are generally able to run the meetings on their own.
- The weekly tutorial session is on Friday or Monday, and consists of about ten students. This is an opportunity to wrap up the week, for the students to ask questions, and to have some fun together. (Note: If you are enrolled in a tutorial session that meets on Monday, then you should watch the Monday (recorded) lecture at some point between your Monday tutorial session and your Tuesday group meeting.)

## Access

Once you have registered and paid, you will receive a “Welcome Email”, which includes links to the lectures, a link to a web portal, and any other necessary documents and information.

## The Three Pillars of Math Academy: Parent, Tutor, and Jamie

In short, the parent, tutor, and Jamie are all working together to provide the best math experience for the student.

### Jamie’s Role.

- Jamie York has a “big picture” overview of the math curriculum in each particular grade, and has a clear sense of how all the grades progress from one year to the next. He knows how the pieces all fit together.
- Jamie communicates and coordinates with the tutors and the parents. This includes parent meetings.
- Jamie designs and implements lesson content, which largely can be divided into four parts:
  - Content for the lectures, which provides the themes for the rest of the week.
  - Individual homework assignments, where students practice necessary skills.
  - Group assignments, where students work together on puzzles, problem-solving, and discovery.
  - Content for the tutorial sessions, which he provides to the tutors with the idea of wrapping up the week.
- Jamie can answer your questions and concerns by emailing him.

### The Role of the Tutor. The responsibilities of the tutor are:

(Note that the meaning of the term “tutor”, as used here, is not just someone helping out a student who is “behind” or struggling, but rather, the tutor is an adult mentor who is helping to guide the student’s studies. This is helpful for all students of all ability levels.)

- *Learning the material.* The tutor needs to listen to the week’s two lectures, and master the content enough to be able to teach it to the student.
- *Monitoring student progress.* The tutor needs to monitor the progress of each student in the tutorial group. This includes looking over the student’s individual homework and group assignments (but not making corrections), answering the student’s questions, correcting tests, and writing progress reports at the end of each semester.
- *Tutorial sessions.* The weekly tutorial session is led by the tutor. It allows for the students to ask questions, for the tutor to clarify the topics of the week, or for other material to be presented. It is an opportunity to look back on the week and for the student to gain some confidence before heading into the next week.
- *Class teacher.* When an entire class from a school joins Math Academy, the class teacher usually serves the role of the tutor.

**The Role of the Parent(s).** The responsibilities of the parent are:

- *Supervising the watching of the lectures.* For grades 5 and 6, the parents should ideally sit down with their child to watch the (Monday and Wednesday) lectures. While watching the lectures, the parent can provide support and encouragement, and occasionally answer questions. Beginning in grade 7, the child might be able to watch the lectures without adult supervision.
- *Supervising individual homework.* Yes, this is the traditional role of the parent...but this should also include the following: ensuring that the “individual work” is done with the right intention, checking answers with the answer key, and ensuring that the student corrects mistakes. The parent may also adjust the amount of homework that is assigned. (See more about homework, below.) Once the student is done working on an assignment (and checked answers!), a photo of the assignment should be sent to the tutor.
- *Coordinating group meetings.* Group work and group assignments are an essential part of the Math Academy experience. It is up to the parents to make sure that these group meetings take place (Tuesdays and Thursdays), and to ensure that the meetings go well. Once again, for the younger children, it will require closer adult supervision. (See also, “What is the role of the parent in the group work?”, below.)
- *Parent as Coach.* The parent also plays an essential role in helping the student process all that they have experienced in class by reviewing, creating summary (or main lesson book) pages, and practicing problems. Perhaps above all, the parent serves as a “coach”, judging how much work is optimal for the student (and adjusting as needed), motivating and encouraging the student, giving advice in times of difficulty, and communicating with the tutor.
- *Steps toward Independence.* While the role of the parent always remains essential, it will, of course, change as the child progresses through the grades. The goal for high school students is to become more independent (e.g., less “hand-holding” when doing their assignments).

## **How much Homework should your Child be doing?**

(Note: In Math Academy, we refer to homework as “Individual Work”.)

We have many students with a variety of needs and abilities. Therefore, it doesn’t make sense that all students should do the same amount work. Part of the beauty of the Math Academy is that we have flexibility. It is not the intention that every child do every problem on the assignment. For a child who struggles with math, it may not be helpful for them to do a lot of homework practice problems; it may make them hate math! You should think of our assignments as “suggestions”. It is critical that parents carefully monitor the amount of work being done to ensure that it is healthy and helpful for the student’s learning. The important thing is that every child is trying their best, is appropriately challenged, is feeling successful (at least fairly often), and is improving their skills and thinking. In some cases, a parent may decide that it is best for the child to primarily focus on the group work and the lectures, and do relatively little of the “Individual Work”.

(However, we should point out that the most important years for skills work are 6<sup>th</sup> grade and 9<sup>th</sup> grade.)

## **Tests**

Why do teachers give their students math tests? Rarely do people ask this question. I believe the purpose of a test should be to give the student the opportunity to show themselves (and their teacher) how much they have learned. The test should help raise the student’s confidence. For high school, a test can also help to give focus to the student’s studies. If giving a test seems unlikely to achieve these purposes, then why give the test at all? In the Math Academy, we give our first test near the end of 6<sup>th</sup> grade. Since a large goal of 6<sup>th</sup> grade is to consolidate and master basic arithmetic skills (e.g., fractions, decimals, long division, etc.), this test helps us to determine which skills need more work and practice. After 6<sup>th</sup> grade, tests in the Math Academy may be given at the end of a unit. Beginning in 8<sup>th</sup> grade, tests may be evaluated with a letter grade.

## **(Letter) Grades and Reports**

The longer I teach, the more I question the benefit of giving letter grades to students. Certainly, it does not seem beneficial to students who receive poor grades, but it also seems counter-productive for “good” students who often end up “grade-obsessed”, which can dampen their enthusiasm for learning. Math Academy course reports are written at the end of each semester (at the end of the second and fourth quarters). The tutor writes a brief comment section about the student’s progress in the course report, which also and may include test scores (for grades 8-12).

Partly for the reasons stated above, and because we feel unable to adequately assess certain components (such as homework, effort, and participation in group work), we do not assign a final course grade. However, some homeschool parents may wish to assign their student (in grades 8-12) a final course (letter) grade, and are free to do so as they see fit.

## Main Lessons

In each grade, the Math Academy includes one or two math main lessons. During a three-week math main lesson, the children get an “extra dose” of math beyond what is happening in the normal Math Academy. To some degree, the math main lessons are co-taught by Jamie and the parent. Jamie delivers the content of the main lesson (in the two lectures each week), and gives suggestions for assignments and possible main lesson book pages (to be worked on during the morning main lesson time). However, it is important to realize that *the homeschool parent is still the primary teacher for the main lesson, especially in regard to determining how far to take the material, overseeing student progress, deciding what work to assign, and correcting main lesson book pages and essays.*

## Curriculum

Each class will follow Jamie York’s Waldorf math curriculum and will use the *Making Math Meaningful* workbooks (except for 5th grade). [Click here to see a curriculum outline of the topics for each grade.](#)

## Meeting the Needs of your Child

Waldorf education is developmentally-based. In part, this means that, regardless of ability, topics are chosen primarily based upon the age of the students. If a child is behind grade level and has weak skills (and honestly, most children have some holes in their math skills base), then that child should still experience the proper grade-level topics. Also, we don’t feel it is desirable for a gifted student to be doing math that is meant for older students; we don’t engage in the “race to get ahead”. However, it is absolutely our intention to make sure that all students’ needs are met; we will do our best to offer challenging material for the more advanced students, and somehow, at the same time, make sure that nobody is feeling overwhelmed and anxious. This is challenging for us teachers! Hopefully, at the end of the year, all of our students will have gained enthusiasm for learning math and progressed in their ability to think mathematically.

## What else do I need to know before my child starts the Math Academy?

- Parent Orientation Meeting. I will hold a parent/teacher orientation meeting just before the Math Academy school year begins. The date for the meeting is found [here](#). We will send a reminder and a link to the meeting a couple of days beforehand.
- Main Lesson Schedule. We offer main lessons for math, science, and humanities. The website gives details about each of these main lessons, and [the Academy Calendar](#) gives all the dates.
- Each child needs a tutor. In the case of an entire class (from a school) joining Math Academy, the class teacher usually plays the role of “tutor”. For homeschool students, we highly recommend that you use one of our Math Academy tutors, and thereby have your child participate in the weekly tutorial sessions. However, we recognize that some parents may wish to play the role of tutor. If you are thinking about serving the role of your child’s tutor yourself, **please read “The Role of the Tutor”** (see below), and make sure you can commit to all of these responsibilities.
- Mental Math. For grades 5-7, the lectures often start with a few mental math problems. It is important to note that we intentionally did not give enough time for the students to do each problem. Therefore, you need to pause the video after each problem, and then resume the video when you are ready for the next problem. (As opposed to other math problems that I give during the lectures, with the mental math problems there is no “Pause the Video” prompt that appears on the screen.)
- A Word about Measurement. The US Measurement system, especially when viewed from outside the USA, seems rather silly. Yet, I am convinced more than ever that there are huge benefits for students when they learn two different measurement systems. There is good mathematical thinking involved when you have to convert from one measurement system to the other. Our students in grades 5-12 work with both the US measurement system and the metric system.

- Computer Needs.
  - You will need a computer for watching the lectures and participating in the group meetings and tutorials. A cell phone is not adequate because things on the screen would be too small. A very old computer may also not be sufficient.
  - Try to make sure that your computer isn't running other unnecessary applications that bog down the CPU (inner workings of the computer), thereby compromising the quality of the video and/or audio.
  - Poor wifi often causes problems. If possible, it may be best to have your computer connected via an ethernet cable, instead of using wifi.
- Other material needs:
  - For Grades 6-12: A ruler that measures both in centimeters and inches (if possible), a protractor for measuring angles, and a compass for drawing circles. I recommend the Staedtler 6" Compass Set
  - For Grades 8-12: A scientific calculator. I recommend the Casio fx-300ES PLUS Scientific Calculator.
  - If you are using a Math Academy tutor, you will need to send copies of your child's work to the tutor. For most of you, this will simply amount to taking a photo with your cell phone, and then emailing it. However, if you are trying to compete with me to be the last person on the planet without a cell phone (how many of you just reread that?), then you can also scan your child's work and email it as an attachment.
- Books. Except for fifth grade, the assignments are usually drawn from our workbooks. Each PDF assignment includes a copy of the relevant pages from the workbook. We also give you a copy of the answer key. Therefore, it is not required that you purchase a copy of the workbook. However, many children still prefer to have their own copy of the workbook. If you wish, you may purchase the workbook [here from our website bookstore](#).

## **The Academy School Year**

The Math Academy school year is 32-weeks long, divided into four quarters of 8-weeks each.

[Here is the Academy Calendar.](#)

Note that the dates on the calendar are specifically designed for the USA school year. However, any school or group of students can choose to have a completely different calendar. The only limitation is that everyone in a student work group must be on the same schedule for progressing through the Math Academy program.

## **Tutorial Notes**

In order to support those who are playing the role of tutor, we provide "Tutorial Session Notes" (basically, abbreviated lesson plans) as one of the documents that you can access through the web portal (which you can access through the "Welcome Email" you receive after payment). These notes are intended to give ideas of what you might want to do in the weekly tutorial session. Of course, what should be done will vary depending upon the needs of the students.

## **Parent/Teacher Meetings with Jamie**

Jamie will hold parent meetings once per quarter in order to elaborate on his intentions for the class and to answer parents' questions. While it is best to attend these meetings live, they will be recorded so you can watch them at a later time. The parent meeting schedule is found [here](#).

## **Online Workshops for Parents and Teachers**

Although it is by no means required, parents may elect to take one of our grade-specific online workshops. These online workshops help to give an overview of the year of math in a particular grade. They are pre-recorded, consist of about 8 hours of video content, and can be watched at any time that fits with your schedule (within a two-week timeframe). Find out more about our [online grade-specific workshops here](#).

## General Thoughts about Group Work

- Group work is the *heart and soul* of the Math Academy. Why? Because this is where students engage in problem-solving, work together on puzzles, and discover the laws of mathematics. That's real math! It's much more than just blindly following the instructions from the teacher. Group work is where the students really develop mathematical thinking capacities.
- With group assignments, I usually haven't told them how to solve the problem, which is contrary to how most of us were taught in school. This is a key feature to my work as a math teacher! I want the students to contemplate something for a while – perhaps even struggle, and maybe they won't even solve it. But this is a valuable experience for the children. In life, sometimes all the answers aren't handed to us!
- Sometimes, I ask the students to contemplate a question and then I address it in the next lecture. It's valuable for students to live with a question for a while before they see the solution.
- Additionally, students are learning more than just math in their group meetings; they are also learning important social skills and developing their ability to articulate their thoughts. I have seen many good friendships blossom from the group work!
- Important: Usually, students shouldn't look at the group assignment until their group meeting begins. I don't want anyone to arrive at the group meeting with a solution, or ideas of how to solve it. I want the students to contemplate this together in their groups. For grades 5-7, once the group meeting begins, a parent should read the group assignment to the group.

## Tips for Successful Group Work (Share this with the students!)

- **Show Up!** By joining a group, you are making a commitment to attend the meetings and to show up on time. Do your best to support one another and be a good group member. This is a good habit to develop for life!
- **Collaborate!** Rather than having everyone work on a problem on their own, and then share their answers, it is generally best to work on the problem together. Strive for a collaborative experience!
- **Be Inclusive!** One student shouldn't be doing most of the talking. Also, it's awkward when one student never contributes. It is best when everyone participates fairly equally.
- **On Task!** It's great to have fun, but the group needs to be primarily focused on the math problems at hand.
- **Be Courageous!** Many adolescents today feel more comfortable being invisible and silent. As Waldorf educators, we encourage students to get out of their comfort zone and find the courage to speak up and be seen! This leads us to an important request...
- **My suggestion for how to work with a new problem:**
  1. One person reads the problem, and then make sure that everyone understands the question.
  2. Ask everyone to think (for about 1 minute) about how we should approach the problem, but (if possible) do not actually solve the problem yet.
  3. Share different ideas on how to solve the problem. It's wonderful when we can see different methods for approaching a problem.
  4. Together, work on using one of the approaches to solve the problem.
- **It is essential for students to have their video cameras turned on.** We realize that many students today feel shy, or that turning on their camera may cause anxiety. These students may wish to be invisible and silent. As educators, we believe it is important to support students in finding the courage to face situations that make them feel uncomfortable, thereby helping them to find their voice and be seen in the world. Furthermore, we build a stronger sense of community when we can see each other and communicate both verbally and non-verbally. If a student is hesitant to turn their camera on, it may be helpful to use Zoom's "Hide Self View" setting.
- **Don't Mute Yourself!** Make sure that you are in a very quiet room free from other noise and distractions. In small group meetings, it's best for everyone to be unmuted in order to encourage more natural conversation.
- **Use a computer** rather than a cell phone, primarily for two reasons: it allows for better eye contact, and when people show things on the screen, you can read it more clearly.
- **Turn off the chat** feature during group meetings. Chatting can be a distraction from the main purpose.

## Parent Role for Group Work

- *Fulfilling your Commitment.* When your child joins a student work group, they are making a commitment to the others in the group. This commitment includes showing up to the meetings (on time!), making an effort to participate (even if you are shy!), turning your camera on (even if you don't want to!), and just being the best group member you can be. If your child can't make this commitment, then it may be best to not join a group.
- *Scheduling and Monitoring the Meetings.* It is up to the parents to schedule the group meetings and make sure that they take place twice per week. The parents also need to ensure that the meetings go well.
- *Getting used to Zoom.* Working with others through Zoom (or another platform) takes getting used to. Parents will likely have to coach the children (especially in grades 5 and 6) on how to interact and help each other out. These issues should improve with time.
- *Supervision, not "Teaching".* In grades 5 and 6, parents should closely supervise the group work to ensure that it is productive, but should not "teach" or tell the students how to do the problems. In grades 8 and above, the students should be able to meet in groups without much parent supervision. After the group meeting, the parent should ask the child how the group meeting went, and maybe offer some advice, if needed.
- *Intruders.* In the first two years of the Math Academy, there has been only one instance of an unwelcome guest joining a meeting for the purpose of causing disruptions. Here is some word of advice on this topic:
  - Have your Zoom meeting settings include a passcode and a "waiting room".
  - Everyone should have their video camera turned on. That way you can see who is there, and it will be suspicious if someone is suddenly in the meeting with their camera off.
  - If anyone suspicious is in the meeting, the host should immediately put them into the waiting room, and then send them a chat to identify themselves.
  - For the older grades, parents should talk to the students about what to do if an intruder ends up in their meeting.
- *Getting through the Assignments.* It's not about getting through all the problems. Essentially, you can view my group assignments as "suggestions" for what to do during group work. The most important thing is that they have a good mathematical (and social) experience. Parents in grades 5 and 6, who have some amount of oversight of the group meetings, should feel free to alter the assignment and create their own problems.
- *Following Up.* Again, for parents in grades 5 and 6, after the group has been working with a particular problem, the parent may decide that they should keep working on that problem in the next group meeting.
- *Enough!* We need to help our children learn when it's time to say "enough!" and put something aside for a period of time. Don't allow them to "bang their head against the wall" for too long! I never want it to get to a point where group work (or anything else) starts to make them hate math. This can be a fine line to walk!

## What "training" is needed to be a tutor or parent in the Math Academy?

As a parent or teacher, you'll learn as the year progresses. Here are the levels of "training":

- Level 1: A parent has a child in Math Academy. They should watch my ["Core Principles" 15-minute YouTube video](#), and read this parent handbook. Depending upon the grade, they may watch the weekly Math Academy lectures. The parent should monitor their child's progress as the year progresses.
- Level 2: A teacher or parent plays the role of *tutor*. This means they have to watch the two Math Academy lectures each week, fully understand the assignments, and teach the weekly tutorial sessions.
- Level 3: They have more interest in learning about Jamie's approach to teaching math so they take one (or more) of the [online grade-specific workshops](#). (Maybe level 2 and level 3 happen in reverse order.)
- Level 4: They want to become a Waldorf-trained teacher, so they enroll in a Waldorf teacher training program.

## Distributing Materials

We ask you to kindly respect our policy: **Please do not download any of our recordings, or record them yourself through any means, or distribute the links and/or passwords to view these recordings to anyone. Also, please do not distribute our assignments to anyone.**