

Quadrivium I

Lesson Plans

Week 1: Instruments

Overview: The purpose of this first week is for students to become skillful in using a compass and straightedge. The work is straightforward, and everything the students need is in the text. The text makes it simple for students to work independently.

Cultivated Virtue: *Constancy (Fortitude)*. The virtue of constancy is the power of resolve and determination (mind and will) to persevere in a good work to its end. We develop constancy through consistent effort but also through being consistently reminded of the magnanimous call at work in our studies.

Students in Week 1 will be doing the same 15 exercises for five consecutive days. Students will be tempted to see the repetition as monotonous. The virtue of *constancy* will be cultivated by overcoming this temptation to see how these exercises set students up to both enjoy and pursue excellence in what lies ahead.

Assessment Preparation: Students should arrive next week prepared to demonstrate excellent use of their instruments on any of the given exercises.

Looking Ahead: The procedures of the second chapter require skillful use of the instruments practiced this week. We will also be putting these skills together to perform interesting constructions.

Monday

We will be working through some of the exercises in class. Students are to complete each exercise in their journal for Day 1. (*Students may reduce the repetition from 6 to 3 if it takes them an inordinate amount of time. However, they should be able to progress to all 6 repetitions by Friday.*)



Tuesday

- I. **Recitation/ Prayer:** Begin by reciting the “Rules of a Virtuous Classroom” and praying “A Prayer Before Study” of St. Thomas Aquinas
- II. **Reading Excerpt:** Carefully and critically read the following excerpt from Dr. Peter Ulrickson.

The quadrivium makes up four of the seven classical liberal arts. The single term “liberal art” joins in two words the tension of freedom and service. These disciplines are “liberal” because they are for persons freed from the consideration of material need, and they are “liberal” because they have a proper finality in themselves. They are, however, also “arts.” They make things; or better, they let us make things.

Ponder this excerpt as you complete your work. Be sure to jot down any interesting questions or thoughts you’d like to share during the next class meeting.

- III. **Exercises:** Take the time to do the simple things well. Do not rush, even if the tasks are simple.
 - Complete all exercises in the class journal. Remember this journal will be reviewed each week.
 - Even if you must reduce the repetition to 3 to complete each exercise with precision and concision, do so with an eye toward completing all 6 repetitions by Friday.
- IV. **Puzzles:** If time permits, students should work on the Puzzles from section 1.3
- V. **Close in Prayer:** As with all things, conclude with gratitude in prayer.

Wednesday

- I. **Recitation/ Prayer:** Begin by reciting the “Rules of a Virtuous Classroom” and praying “A Prayer Before Study” of St. Thomas Aquinas
- II. **Reading Excerpt:** Carefully and critically read the following excerpt from Dr. Peter Ulrickson.

Our study of the quadrivium begins with attention to small details. The first exercises in the use of instruments encourage care in simple things like the production of points, lines, and circles. Careful drawings make the ideas of geometry clearer. They are also beautiful.

To practice care yields more than just a superficial or aesthetic benefit. Many errors arise in mathematics through carelessness. Eager to grasp something (or worse, to show off our knowledge) we gloss over some essential detail, one that turns out to be the heart of the matter...Careful work is beautiful, and it protects from error; it also satisfies, and this is the final reason to practice care.

Ponder this excerpt as you complete your work. Be sure to jot down any interesting questions or thoughts you’d like to share during the next class meeting.

- III. **Exercises:** Take the time to do the simple things well. Do not rush, even if the tasks are simple.
 - A. Complete all exercises in the class journal. Remember this journal will be reviewed each week.
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Thursday

- I. **Recitation/ Prayer:** Begin by reciting the “Rules of a Virtuous Classroom” and praying “A Prayer Before Study” of St. Thomas Aquinas
- II. **Reading Excerpt:** Carefully and critically read the following excerpt from Dr. Peter Ulrickson.

To study *A Brief Quadrivium* in its entirety is a challenging task, one that will take some time. Things that take a long time require us to be patient. It is good to know in advance some of the points requiring patience. [We will look at just the first one this week]

- **Practicing the actions.**
- Going from actions to explanations.
- Understanding the statement given.
- Understanding the proof of a statement.
- Understanding how the various statements form a single, structured body of thought.
- Understanding how the various disciplines—geometry, arithmetic, music, astronomy—themselves amount to one single thing, one way composed of four ways.

Practicing the actions: Before formal, logical, mathematical study, we will begin with fairly mechanical, instrumental actions. These are simple to describe, but not always simple to perform. Sometimes, for example, when you try to make a circle, the compass will not work well (or you won’t use it well) and what you get won’t look like a circle. With time, and patient practice, this will occur less often.

Ponder this excerpt as you complete your work. Be sure to jot down any interesting questions or thoughts you’d like to share during the next class meeting.

- III. **Exercises:** Take the time to do the simple things well. Do not rush, even if the tasks are simple.
 - A. Complete all exercises in the class journal. Remember this journal will be reviewed each week.
 - B. Even if you must reduce the repetition to 3 to complete each exercise with precision and concision, do so with an eye toward completing all 6 repetitions by Friday.
- IV. **Assessment Prep:** Review the assessment preparation on the first page. What do you need to do before Monday to prepare to excellently demonstrate excellent work? What are you willing to do?
- V. **Puzzles:** If time permits, students should work on the Puzzles from section 1.3
- VI. **Close in Prayer:** As with all things, conclude with gratitude in prayer.

Friday

- I. **Recitation/ Prayer:** Begin by reciting the “Rules of a Virtuous Classroom” and praying “A Prayer Before Study” of St. Thomas Aquinas
- II. **Exercises:** Take the time to do the simple things well. Do not rush, even if the tasks are simple.
 - A. Complete all exercises in the class journal. Remember this journal will be reviewed each week.
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