

Course Title:

Academic Masters

Length:

Ten – Twelve Weeks
Grades 7 & 8

Schools:

Pierrepoint
Union

RUTHERFORD PUBLIC SCHOOLS
Rutherford, New Jersey

GIFTED AND TALENTED DEPARTMENT

Academic Masters
MINI COURSE
GRADES 7 & 8

1. Introduction/Overview/Philosophy

Academic Masters is a course in which gifted students can prepare and compete with other students from around the nation and the world in academic competition. Students will have the opportunity to prepare for and participate in both The Knowledge Master Open and The WordMasters Challenge. The WordMasters Challenge part of the course will encourage growth in vocabulary and verbal reasoning by addressing higher-level comprehension skills. Students will improve their analytical and metaphorical thinking as well as begin preparation for the verbal SAT I. The Knowledge Master Open portion of the class involves preparing for and participating in a challenging competition in which students compete against other schools in a computer-based competition. The questions require higher-level thinking skills and are based on fourteen curriculum areas. Students may elect to participate in one or both parts of the course.

2. Objectives

- a. Students will be able
 1. To identify the common artistic elements that help define a given historical period (1.5);
 2. To identify and use organizational structures to comprehend information (3.1);
 3. To distinguish among the spellings of homophones to determine meaning (3.1);
 4. To apply spelling and syllabication rules that aid in decoding and word recognition (3.1);
 5. To continue to use structural analysis and context analysis to decode new words (3.1);
 6. To apply knowledge of word structures and patterns to read with automaticity (3.1);
 7. To clarify word meanings through the use of a word's definition, example, restatement, or contrast (3.1);
 8. To clarify pronunciations, meanings, alternate word choice, parts of speech, and etymology of words using the dictionary, thesaurus, glossary, and technology resources (3.1);
 9. To expand reading vocabulary by identifying and correctly using idioms and words with literal and figurative meanings in their speaking and writing experiences (3.1);
 10. To explain relationships between and among words including connotation/denotation, antonyms/synonyms, and words with multiple meanings (3.1);
 11. To paraphrase, illustrate, clarify, and/or expand on a topic or idea (3.3);
 12. To develop and use advanced vocabulary related to a topic (3.3);

13. To use language that stimulates an audience's interest (3.3);
14. To use and explain procedures for performing calculations involving addition, subtraction, multiplication, division, and exponentiation with integers and all number types (4.1);
15. To understand and apply concepts involving lines, angles, and planes (4.2);
16. To understand and apply the Pythagorean theorem (4.2);
17. To understand and apply properties of polygons (4.2);
18. To interpret probabilities as ratios, percents, and decimals (4.4);
19. To compare and contrast kinds of organisms using their internal and external characteristics (5.5);
20. To know that all matter is composed of atoms that may join together to form molecules (5.6);
21. To recognize that every object exerts a gravitational force on every other object, and that the force depends on how much mass the objects have and how far apart they are (5.7);
22. To describe conditions in the atmosphere that lead to weather systems and how these systems are represented on weather maps (5.8);
23. To describe the physical characteristics of the planets and other objects within the solar system and compare Earth to the rest of the planets (5.9);
24. To describe the underlying values and principles of democracy and distinguish these from authoritarian forms of government (6.2);
25. To describe major conflicts that have arisen from diversity (6.2);
26. To discuss factors that lead to a breakdown of order among nation-states (6.2);
27. To describe the physical and cultural changes that shaped the earliest human communities (6.3);
28. To distinguish among the distinct characteristics of maps, globes, graphs, charts, diagrams, and other geographical representations, and the utility of each in solving problems (6.6).

b. Course Outline

The course focuses on words chosen annually by WordMasters and on practice questions and subject areas provided by The Knowledge Master Open. The students will develop questions of their own, quiz one another, and participate in simulated academic competitions to prepare for both WordMasters and The Knowledge Master Open. Student will compete in teams in The Knowledge Master Open and individually in WordMasters. Competitions are held December through April.

c. New Jersey Core Curriculum Content Standards

The following New Jersey Core Curriculum Content Standards are integrated into this course:

Language Arts Literacy Standards

- 3.1 (Reading) All students will understand and apply the knowledge of sounds, letters, and words in written English to become independent and fluent readers and will read a variety of materials and texts with fluency and comprehension.
- 3.2 (Viewing and media literacy) All students will access, view, evaluate, and respond to print, nonprint, and electronic texts and resources.

Mathematics Standards

- 4.1 (Number and Numerical Operations) All students will develop number sense and will perform standard numerical operations and estimations on all types of numbers in a variety of ways.
- 4.2 (Geometry and Measurement) All students will develop spatial sense and the ability to use geometric properties, relationships, and measurement to model.
- 4.4 (Data Analysis, Probability, and Discrete Mathematics) All students will develop an understanding of the concepts and techniques of data analysis, probability, and discrete mathematics, and will use them to model situations, solve problems, and analyze and draw appropriate references from data.

Science Standards

- 5.5 (Characteristics of Life) All students will gain an understanding of the structure, characteristics, and basic needs of organisms, and will investigate the diversity of life.
- 5.6 (Chemistry) All students will gain an understanding of the structure and behavior of matter.
- 5.7 (Physics) All students will gain an understanding of natural laws as they apply to motion, forces, and energy transformations.
- 5.8 (Earth Science) All students will gain an understanding of the structure, dynamics, and geophysical systems of the Earth.
- 5.9 (Astronomy and Space Science) All students will gain an understanding of the origin, evolution, and structure of the universe.

Social Studies Standards

- 6.2 (Civics) All students will know, understand and appreciate the values and principles of American Democracy and the rights, responsibilities, and roles of a citizen in the nation and the world.
- 6.3 (World History) All students will demonstrate knowledge of world history in order to understand life and events in the past and how they relate to the present and the future.

- 6.6 (Geography) All students will apply understanding, knowledge of spatial relationships and other geographic skills to understand human behavior in relation to the physical and cultural environment.
3. **Proficiency Levels**

This mini course is offered to students in grades 7 & 8 who have qualified for the Gifted and Talented Program.
 4. **Methods of Assessment**
 - a. Student Assessment

The teacher will provide a variety of assessments that may include, but are not limited to, the following: teacher observation, class discussions, practice competition, and the results of actual competitions with other school districts.
 - b. Curriculum Assessment/ Teacher Assessment

The teacher/ Gifted and Talented Department coordinator will review this course and continue to modify and update its content.
 5. **Grouping**

Students self-select this mini course in grades 7 & 8.
 6. **Articulation/ Scope & Sequence/ Time Frame**

Over a period of approximately four months, students will prepare for and participate in academic competitions.
 7. **Resources**
 - WordMaster word lists
 - WordMaster activities
 - Knowledge Master question bank
 - Knowledge Master quiz bowl program
 8. **Methodologies**

Methods include but are not limited to:

 - Class discussions
 - Practice competitions
 - Small group activities
 9. **Suggested Activities**
 - Objective questioning
 - Student-generated questions
 - Mini-research projects
 - Critical reading
 10. **Interdisciplinary Connections**

This course focuses on fourteen curriculum areas.

11. **Professional Development**

As per the PIP/100 hour statement: the teacher will continue to improve expertise through participation in a variety of professional development opportunities. Specialized professional development for teachers in the Gifted and Talented Department is offered through Bergen County Consortium of Teachers of the Gifted (BCCTG), the New Jersey Association for Gifted Children (NJAGC), and the Summer Institute for the Gifted (SIG).