

CURRICULUM GUIDE FOR SERVING THE NEEDS OF GIFTED AND TALENTED STUDENTS

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PREFACE

Most of the schools in the Diocese of Columbus enrich the studies of their gifted and talented students within the regular classroom. Given this fact, the committee created a document that would function differently than our other courses of study. This document is set up as a curriculum guide, not as a course of study with objectives to be mastered at each grade level. It is our specific intent to provide the classroom teacher with objectives, activities, and resources that could be used across grade and age levels.

INTRODUCTION

Talented refers to students who perform or show potential for performing at remarkably high levels of accomplishment. Students may be talented in one or more of the following areas: general intellectual ability, specific academic aptitude, creative or productive thinking, visual or performing arts, leadership ability, and psychomotor ability.

PHILOSOPHY

The Diocese of Columbus recognizes that each individual is uniquely created by God. It is the responsibility of our schools to educate each student to his/her fullest potential. Gifted and talented students by virtue of outstanding abilities are capable of high performance. They benefit from differentiated programs and instruction. Research has shown that talented children may have difficulty interacting with others. It is important to help talented students develop social skills.

STANDARDS

This program focuses on a variety of higher level thinking skills. Among the skills developed are:

- a. critical thinking and logical reasoning skills
- b. creative problem solving
- c. divergent thinking skills
- d. effective oral, written, visual, and performances skills

GIFTED AND TALENTED CURRICULUM GUIDE COMMITTEE

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IDENTIFICATION OF GIFTED AND TALENTED STUDENTS

Teachers are encouraged to differentiate instruction in the regular classroom to match students' abilities. To formally identify gifted and talented students, the state of Ohio uses the following criteria:

1. Superior Cognitive Ability (as per recommendation of the Ohio Department of Education)

- a. Performance 2 standard deviations above the mean minus the standard error of measurement on a group standardized intelligence test, or
- b. Performance at or above the 95th percentile nationally on a group standardized achievement test.

2. Specific Academic Ability

- a. Performance at or above 95th percentile on an individual or group achievement test, or
- b. Documented superior performance on a diocesan approved assessment.

3. Creative Thinking

- a. Performance one standard deviation above the mean minus the standard error of measurement on an individual or group intelligence test.
- b. Exhibit superior performance in an applied academic setting.

4. Visual and/or Performing Arts Ability

- a. Demonstrated superior ability in a visual arts area by audition or display.
- b. Demonstrated superior ability in performing arts by audition or display.

Comparison between a bright child and a gifted child

Bright Child

- knows the answers
- is interested
- is attentive
- has good ideas
- works hard
- answers the questions
- listens with interest
- 6-8 repetitions for mastery
- understands ideas
- enjoys peers
- grasps the meaning
- completes assignments
- is receptive
- enjoys school
- absorbs information
- technician
- good memorizer
- enjoys straightforward, sequential presentation
- is alert
- is pleased with own learning

Gifted Child

- asks the questions
- is highly curious
- is mentally and physically involved
- has wild, silly ideas
- plays around, yet tests well
- shows strong feelings and opinions
- 1-2 repetitions for mastery
- already knows
- prefers adults
- constructs abstractions
- initiates projects
- is intense
- enjoys learning
- creates new design
- manipulates information
- good guesser
- thrives on complexity
- inventor
- is keenly observant
- is highly self-critical

Characteristics of Gifted That Tend To Screen Them Out of Programs

- Bored with routine tasks, refuses to do rote work, gets into trouble
- Difficult to get student to move into another topic, is obsessed with one topic
- Is self-critical, impatient with own failure
- Is critical of others, teachers, dislikes school
- Often disagrees vocally with others and/or teacher
- Makes jokes/puns inappropriately
- Emotionally sensitive, overreacts, angers or cries easily, may suffer from depression
- Not interested in details, does messy work
- Refuses to accept authority, nonconforming, stubborn
- Tends to dominate others
- May have a learning disability, ADHD, or be an underachiever.

Standard I: The student will develop critical thinking and logical reasoning skills.

Rationale: Critical thinking skills enable the student to evaluate information based on reason and alternatives. The student will practice classification, patterning and sequencing skills in order to draw conclusions based on sound inferences.

Skills Objectives:

The student

- A. Compares and contrasts.
- B. Evaluates information and data.
- C. Develops and uses classification, patterning, sequencing and analogies.
- D. Applies techniques to alter ideas: rearranges, reverses, eliminates, substitutes, or adds.
- E. Analyzes content, elements, trends and patterns, relationships, organizing principles, propaganda and bias.
- F. Identifies variables, both independent and dependent, and puts them in a logical order.
- G. Draws conclusions and makes generalizations.
- H. Scans for the big picture and predicts outcomes.
- I. Analyzes the results of projects, investigations, and experiments.
- J. Evaluates his/her own work according to pre-determined criteria.
- K. Applies inductive and deductive reasoning as well as other basic precepts of logic such as cause and effect.
- L. Analyzes information to detect faulty reasoning.

Standard II: The student will develop creative problem solving skills.

Rationale: Creative problem solving gives students the processes they need to set goals, make decisions, and bring a problem to a successful solution.

Skills Objectives:

The student

- A. Understands the problem by gathering information and describing specific elements of the situation.
- B. Analyzes the problem to set goals and generate possible solutions.
- C. Evaluates the strategies to reach a decision that meets the goal(s).
- D. Executes the solutions.
- E. Applies creative problem solving to real-life situations/problems.

Standard III: The student will develop divergent thinking skills.

Rationale: Divergent thinking skills facilitate critical, logical, and creative thinking that may not result in a solution or product.

Skills Objectives:

The student

- A. Demonstrates fluency by generating a wide variety of responses and ideas to actual or contrived problems by:
 - 1. brainstorming without evaluating,
 - 2. encouraging unique responses,
 - 3. piggybacking on others' ideas while keeping feedback positive, and accepting all answers.
- B. Exhibits flexibility by considering alternative perspectives based on new evidence.
- C. Expresses originality by developing unique or unusual ideas or concepts.
- D. Provides elaboration while exploring or extending ideas or concepts to allow for ongoing and future possibilities.

Standard IV: The student will develop advanced skills in the visual, oral, written, and/or performance arts areas.

Rationale: Students should be encouraged to employ divergent means of expressing what they know and can do. This allows students to develop and enhance their particular skills and talents as well as develop new ones.

Skills Objectives:

The student

- A. Creates products to communicate thoughts and ideas including such artifacts as:
 - 1. film,
 - 2. sculpture,
 - 3. art portfolio,
 - 4. scale model, and/or
 - 5. technological works.
- B. Demonstrates advanced oral communication skills by articulating thought processes effectively through presentation forms such as:
 - 1. oratorical competitions,
 - 2. mock trial,
 - 3. oral presentations, and/or
 - 4. speeches.
- C. Demonstrates advanced written communication skills through activities such as:
 - 1. contributions to literary publications,
 - 2. research papers,
 - 3. writing competitions, and/or
 - 4. development of an advanced writing portfolio.
- D. Demonstrates superior performance skills in areas such as music, dance, and/or drama.

EVALUATION

Methods of objective measurement normally used in the classroom may be used to evaluate the students. This includes:

1. **Standardized Assessments.** The Terra Nova and In-View are the two standardized tests used by the Diocese of Columbus. These tests are most useful in the assessment of achievement and cognitive ability.
2. **Teacher-constructed assessments.** Locally constructed materials that assess the students' mastery of the gifted and talented standards. They may follow a variety of formats (oral, paper-pencil, computer disc, etc.).
3. **Performance Assessments.** A performance assessment can be developed, which requires students to actively accomplish complex and significant tasks, while bringing to bear prior knowledge. The performance assessment can be evaluated by using a well developed rubric based on the standards being evaluated. A performance task can be administered on an individual or small group basis. This is appropriate assessment for creative talents and/or specific abilities.
4. **Assessment of Student's Product.** In this type of assessment, the student creates a product that demonstrates cognitive, affective, or psychomotor mastery of the gifted and talented standards. The evaluation is based on a developed rubric.

APPENDIX

TALENTED STUDENT INFORMATION

NAME _____ GRADE _____ DATE _____

1. Cognitive Ability

A. Individual Test Score _____ Date _____

B. Group Test Score _____ Date _____

C. Individual Achievement Test Percentiles _____ Date _____

D. Documented Superior Performance
Explain

2. Specific Academic Ability

A. Individual Achievement Test Score _____ Date _____

B. Group Achievement Test Score _____ Date _____

C. Document Superior Performance
Explain

3. Creative Thinking Ability

A. Individual or Group Test of Creative Ability _____ Date _____

B. Checklist of Creative Ability _____ Date _____

4. Visual and/or Performing Arts Ability

A. Demonstrated Superior Ability
Explain

B. Checklist of Behaviors: Art Area _____

RESOURCES

DEFINITIONS

Acceleration

- a. A student finishes grades k-12 in less than 13 years.
- b. Challenging a child with material taught at a higher grade level.

Bloom's Taxonomy

A model used to demonstrate how simple it is to create highly challenging activities and questions.

Compacting

Allowing students to do what is necessary: pre-knowledge is tested then the student is asked to work on what they do not know.

Contract

A system used mostly for independent studies.

Creative Problem Solving

Making and communicating meaningful connections.

Critical Thinking Skills

Reasoning processes in which you organize, analyze, synthesize and expand information to problem solve.

Deduction

A process of reasoning in which a conclusion follows necessarily from the stated premise.

Differentiated Instruction

Grouping a class to teach the same concept in different ways based on the students readiness level, interests or learning styles.

Divergent Thinking

A type of thinking that is open-ended; there are no right answers.

Elaboration

The production of new steps, ideas and responses or embellishments to a basic idea, situation or problem.

Flexibility

Use many alternatives and approaches to problem solving.

Fluency

Able to come up with a large number of possibilities.

Grouping

Cluster - grouping according to what is being taught

Ability - grouping according to the abilities of the students

Induction

The process of deriving general principles from particular facts or instances.

Metacognition

The study of thinking and ways of thinking: philosophy.

Originality

The ability to come up with new, unusual or unconventional associations and combinations among information. Able to see relationships among seemingly unrelated objects, ideas, or facts.

ORGANIZATIONS

Ohio Association for Gifted Children www.oagc.com

National Association for Gifted Children www.nagc.org

The Association for Health, Physical Education, Recreation, and Dance www.ohahperd.org

American Alliance for Health, Physical Education, Recreation and Dance www.aahperd.org

GIFTED ACTIVITIES WITH LINKS

American Mathematics Competitions www.unl.edu/amc/

Catholic Math League www.catholicmathleague.com

Columbus School for Girls A.T.L.A.S. Summer gifted program www.columbuschoolforgirls.org

Columbus Academy Summer Programs www.columbusacademy.org

Destination ImagiNation

http://www.idodi.org/index.php?option=com_content&view=category&layout=blog&id=33&Itemid=51

Diocesan Art Show

sponsored by the Diocese

Diocesan Oratorical Competition

sponsored privately by a benefactor

Diocesan Spelling Bees

sponsored by individual groups of schools in the Diocese of Columbus

First LEGO League Program <http://www.badgerbots.org/legoleague.htm>

Geography Bee www.nationalgeographic.com/society/ngo/geobee

Gifted Summer Camps and Programs www.studenteducationprograms.com/giftedprograms.html

Librarian Unlimited

P. O. Box 6633

Englewood, Ca. 80155

800-237-6124 www.nationalgeographic.com/society/ngo/

Junior Great Books K-12 <http://www.greatbooks.org/programs-for-all-ages/junior.html>

History Day in Ohio-grades 4-5 and 6-12 <http://www.ohiohistory.org/historyday/>

ICE Challenge <http://www.ignitingcreativeenergy.org/>

In the Know-high school competitions www.lvs2.netohio-state.edu/local-features/in-the-know

Invention Convention <http://www.just-think-inc.com/columbus/ab.html>

Lions Clubs International Peace Poster Contest

Martin Essex School for the Gifted –OSU (high school juniors going to senior year)

MathCounts <http://mathcounts.org/Page.aspx?pid=195>

Midwest Talent Search www.ctd.northwestern.edu/

Mock Trial-Ohio Center for Law Related Education www.ocltre.org

National Academy of Engineering Essay Contest <http://www.engineergirl.org/?id=4225>

National Engineers Week Future City Competition-Ohio Region www.futurecityohio.org

Odyssey of the Mind <http://www.odysseyofthemind.com/>

OWjL Camp 740-368-3939 www.owu.edu/~owjlweb

Power of the Pen-compete through the participation of your school (7th and 8th graders)

President's Physical Fitness Challenge http://www.fitness.gov/home_pres_chall.htm

Science Fair-compete through your local school

Science Olympiad <http://www.sofworld.org/>

Telluride Kids-experiences in the natural world www.tellurideadventures.com/kids_camps

Thinking Cap Quiz Bowl-grades 5-8 <http://www.thinkingcapquizbowl.com/registration/>

Think Quest-through high school <http://www.thinkquest.org/en/>

The Thurber Writing Academy www.thurberhouse.org/program/yth_academy.html

WISE Academic Camp http://www4.wittenberg.edu/administration/school_of_community_education/wise/

Writer's Pot Literary Magazine (k-8) - sponsored by the Diocese

Young Women's Summer Institute-Ohio Supercomputer Center- middle school girls and k-12 science and math teachers
www.osc.edu/education/wsi

RESOURCE BOOKS

Borland, James H.	<u>Planning and Implementing Programs for the Gifted</u> 1989
Clark, Barbara,	<u>Growing Up Gifted</u> 2007
Colangelo, James	<u>Handbook of Gifted Education</u> 2002
Davis, Gary	<u>Education of the Gifted and Talented</u> 2003
Gardner, Howard	<u>Creating Minds</u> 1994
Robinson, Ann, Ph.D. et al	<u>Best Practices in Gifted Education: An Evidence-Based Guide</u> 2006
	<u>The Handbook of Secondary Gifted Education</u> 2005
	<u>Teaching Young Gifted Children in the Regular Classroom-ages 4-9</u> 1997
Winebrenner, Susan	<u>Teaching Gifted Kids In The Regular Classroom</u> 2004

Prufrock Press is the leading resource for gifted and advanced learners. They carry numerous teaching and learning tools as well as identification instruments and professional resources. www.prufrock.com to request a catalogue.

MAGAZINES AND JOURNALS – *The following magazines and journals are available through Prufrock Press*
www.prufrock.com

Gifted Child Today

Journal for the Education of the Gifted

Journal of Advanced Academics

LEARNING STRATEGIES

BLOOM'S TAXONOMY OF THE COGNITIVE DOMAIN

Ben Bloom's taxonomy illustrates a hierarchy of thinking skills. Gifted students should spend the majority of their thinking time at the analysis, synthesis, and evaluation levels.

Knowledge

Remembering and recalling specific information

Comprehension

Understanding, translating, interpreting, and extrapolating when information is given

Analysis

Breaking down information into parts

Application

Applying learned information to new situations and using abstractions

Synthesis

Putting parts together to form a new whole, requiring original thinking

Evaluation

Making judgments based on established self-developed criteria

METACOGNITION

Metacognition is a conscious approach to thinking and problem solving. It is thinking about thinking before, during and after problem solving. The student plans a course of action, monitors the plan while executing it, adjusts the plan as needed, and evaluates him/herself upon completion.

METACOGNITIVE PROCESSES

Asking Questions	Analyzing	Narrowing
Setting Goals	Social Intelligence	Inferring
Tolerance for Ambiguity	Translating	Memorizing
Posing Questions	Self-Awareness	Organizing Data
Alternatives	Logical vs. Emotional Thinking	Setting Criteria
Examples/Non-Examples	Synthesizing	Hypothesizing
Comprehending	Flexible Thinking	Assuming
Risk Taking	Evaluating	
Reflecting	Considering Options	
Similarities/Differences	Comparing	
If/Then	Contrasting	
Transferring	Recalling Past Knowledge	
Random Guessing	Process of Elimination	
Brainstorming	Making Connections	
Using References	Identifying Patterns	

MULTIPLE INTELLIGENCES

Gifted education recognizes that there are many types of intelligence. The following are the nine intelligences as identified by Howard Gardner.

Verbal/Linguistic Intelligence relates to words and language, written and spoken. This type of intelligence dominates most Western educational systems today. Sample occupations include: writer, speaker, and teacher.

Logical/Mathematical Intelligence - Often called "scientific thinking", this intelligence deals with inductive and deductive thinking/reasoning, numbers, and the recognition of abstract patterns. Sample occupations include: scientist, engineer, and actuary.

Interpersonal Intelligence operates primarily through person-to-person relationships and communication. It relates to understanding the motivation of others and sensitivity to others. Sample occupations include: psychologist, manager, and negotiator.

Intra-personal Intelligence relates to self-reflection, meta-cognition (i.e., thinking about thinking) and making good personal choices. Sample occupations include: people-oriented careers.

Visual/Spatial Intelligence relies on the sense of sight and being able to visualize an object, and includes the ability to think three dimensionally. Sample occupations include: pilot, astronaut, artist, and navigator.

Body/Kinesthetic Intelligence relates to physical movements of the body, including the brain's motor cortex, which controls bodily motion. Sample occupations include: dancer, athlete, coach.

Musical/Rhythmic Intelligence is based on the recognition of tonal patterns, including various environmental sounds, and on a sensitivity to rhythm and beats. Sample occupations include: musician, composer, dancer.

Naturalist Intelligence is the ability to recognize the patterns found in nature. Sample occupations include: farmer, biologist, landscaper, and botanist.

Existentialist Intelligence is the ability to see the "big picture" of the human world by asking questions about life, death, and the ultimate reality of human existence. Sample occupations include: philosopher and theologian.