

Bloomingtondale School District

Bloomingtondale, NJ



Math Grades K-8

Adopted: September

2017

Grades K-8 Mathematics are aligned to the NJ Student Learning Standards for Mathematics. As the content is taught, the NJSL-S-M mathematical practices are also woven in, helping to develop the attitudes and habits of mind of those who know and enjoy mathematics and use it effectively.

**Mathematics
Department**

*Bloomingtondale School
District*

***MATH K-8
CURRICULUM GUIDE***

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CURRICULUM ADDENDA FOR SPECIAL EDUCATION

This curriculum can be both grade and age appropriate for special education students and serves as a guide for the special education teacher in line with the district's written philosophy of special education, as stated within Policy #6700 concerning Programs for Educationally Disabled Students. Based on the Child Study Team evaluation and consultation with the parent and classroom teacher, an individualized education plan may include modifications to content, instructional procedures, student expectations, and targeted achievement outcomes of this curriculum document in accordance with the identified needs of an eligible student. This educational plan will then become a supplemental guide that the classroom teacher, parent, and Child Study Team will use to measure the individual student's performance and achievement.

CURRICULUM ADDENDA FOR ENGLISH LANGUAGE LEARNERS

This curriculum guide is appropriate and is implemented for all students according to age and grade, and is in line with the district's written philosophy of English language acquisition concerning Bilingual Instruction and English as a Second Language Programs. In Accordance with the New Jersey Administrative Code 6A:15, the contents herein provide equitable instructional opportunities for English Language Learners to meet the Core Curriculum Content standards and to participate in all academic and non-academic courses. Students enrolled in a Bilingual and/or an ESL program may, in consultation with the classroom teacher and Bilingual and/or ESL teacher, receive modification to content, instructional procedures, student expectations and targeted achievement outcomes of this curriculum document in accordance with the students developmental and linguistic needs.

ENGLISH LANGUAGE LEARNERS GENERAL MODIFICATIONS FOR INSTRUCTIONAL ACTIVITIES

In order to ensure that English Language Learners are fully integrated into classroom life and can participate in all mainstream content areas, certain modifications and differentiated criteria shall be implemented. The following modifications can be utilized to suit the needs of English Language Learners in the mainstream classes outlined in this curriculum guide. After consultation with an ESL/Bilingual teacher and identification of student's proficiency level, the mainstream content area teacher can choose the appropriate strategies.

Teachers should:

Beginning ESL students

- Allow students to illustrate answers or vocabulary words
- Allow students to translate vocabulary into native language and use native language dictionary.
- Speak slowly and clearly
- Use gestures, facial expressions, and visuals
- Ask yes/no questions
- Model: use concrete demonstration of abstract concepts
- Use manipulatives, props, pictures, and concrete objectives as much as possible
- Assign a native language partner/peer tutor
- Use study guides/outline chapters
- Monitor use of notebooks
- Differentiated grading and requirements

Beginning and Intermediate ESL students

- Simplify language/avoid idioms
- Use cooperative learning groups/set up peer tutoring pairs to encourage participation
- Use videos to reinforce content
- Tape record lessons and text readings
- Incorporate appropriate student software into planning and assignments
- Highlight key words and concepts
- Reduce the number of items for tests, class work, and homework
- Allow for repetition of material in various modes, (oral, written, visual, song)
- Allow verbal response in place of written
- Use manipulatives and hands-on activities
- Use graphic organizers, Venn diagrams and outlines to visually present information
- Encourage students to organize information through the use of such organizers
- Build background knowledge prior to lesson, students may not be aware of culturally specific events or objects
- Provide multiple choice options for open ended questions
- Use student as a resource whenever possible
- Differentiated grading and requirements

Advanced ESL students and recently exited ESL students (see above as needed)

- Score writing holistically (focus on the content of ideas rather than grammar)
- Use cooperative learning groups/set up peer tutoring pairs
- Highlight key words
- Encourage participation by fostering a supportive class climate and allowing for mistakes
- Use graphic organizers
- Modify and support writing assignments and assessments
- Build background knowledge through class discussions especially if material is culturally specific to the United States

Use student as a resource whenever possible/highlight student success

MODIFICATIONS/SUPPLEMENTARY AIDS IN REGULAR EDUCATION FOR SPECIAL EDUCATION STUDENTS

To the maximum extent appropriate, an educationally disabled pupil shall be educated with children who are not educationally disabled. In developing the basic plan of the individual education program, the Child Study Team, Regular Education teacher, Special Education teacher, and parent/guardian shall determine the appropriateness of regular education program options with support, such as curricular or instructional modifications.

The following list is only some of the curricular modifications and instructional techniques available for implementation in the Regular Education classroom.

- Read tests orally, record student response; allow test retakes
- Reduce the amount of written work or class work by one half
- Grade student on what is handed in, do not penalize for incomplete assignments / homework / spelling
- Allow student to finish tests and quizzes during school, after school, or in the Resource Center; allow additional time for tests
- Do not require student to make up work when absent
- Provide preferential seating, study carrels
- Keep desk free from extraneous materials
- Provide adequate space for movement
- Extend time for processing information
- Cue student to stay on task
- Establish an individual daily schedule
- Break work into shorter segments
- Rewriting tests / consider spacing and crowding
- Test for content and knowledge in subject areas
- Grading modification based on individual goals
- Verbal cues and prompts
- Proximity control
- Logical consequences / natural reinforcers / immediate feedback
- Augmentative communication systems (i.e., Alpha Talker)
- Books on tape / study guides
- Differentiated activities / assignments
- Homework Clubs, homework assignment pads
- Vary test formats; short answers, matching, essay
- Alternative response modes: points, writes, circles
- Curriculum-based assessment
- Peer tutoring : Individual and Classwide models
- Cooperative learning groups
- Advance organizers / outlines / study guides / mapping guides
- Note-taking assistance / note-taking strategies
- Rephrasing/redirecting /'preview' strategies / mnemonic devices
- Computer assisted instruction
- Assistive technology devices
- Math: calculator, tables, number lines, manipulatives
- Vary input: lecture, demonstration, simulations
- Vary output: oral , written games, role plays
- Vary questioning techniques
- Parallel activity or curriculum
- Provide summary of reading assignment: written / taped
- Use checklist for review / study procedures
- Behavioral contingency contracts / planned ignoring
- Time out/ time away

METHODS OF INSTRUCTION

- I. MODELED LESSONS
- II. EXPLORE AND DISCOVERY-BASED ACTIVITIES
- III. MANIPULATIVE ACTIVITIES
- IV. DIRECT INSTRUCTION
- V. PROBLEM-SOLVING WITH WRITTEN EXPLANATIONS
- VI. LEARNING CENTERS AND GROUP WORK
- VII. DISCUSSIONS THAT ELICIT EXPLANATIONS TO CONVINCING THE OBSERVER
- VIII. TEACHER-INVOKED DISCUSSION TO SHARPEN CRITICAL REASONING BY ASKING “WHY?”
- IX. PEER ASSIST AND TUTORING
- X. STRATEGY GAMES
- XI. MENTAL MATH/ESTIMATION EXERCISES
- XII. EXPLORE AND CHECK WITH CALCULATORS
- XIII. INTERNET ACTIVITIES
- XIV. PROJECTS
- XV. SCIENCE-INTEGRATED LABS
- XVI. MATHEMATICS-RELATED LITERATURE

MATERIALS FOR INSTRUCTION

- I. BLACKBOARD, SMART BOARDS, BULLETIN BOARDS
- II. COORDINATE PLANE BOARDS
- III. MANIPULATIVES
- IV. OVERHEAD
- V. CALCULATORS
- VI. INTERNET ACCESS
- VII. TEXTBOOK AND WORKBOOK
- VIII. TEACHER RESOURCES
- IX. AUDIO-VISUAL AIDS
- X. NEWSPAPERS
- XI. MEDIA CENTER MATERIALS

METHODS OF STUDENT EVALUATION

Students will be evaluated by teacher observation and analysis of:

I. ATTITUDE AND BEHAVIOR

- A. Preparation for class
- B. Respect for classmates and teacher
- C. Proper use of manipulatives

II. EFFORT

- A. Seriousness of purpose
- B. Discovery process during hands-on activities

III. PARTICIPATION IN CLASSWORK

- A. Class discussions
- B. Group work
- C. Observation
- D. Problem-solving
- E. Demonstrations
- F. Manipulative activities

IV. WRITING IN MATH

- A. Portfolios
- B. Notebooks
- C. Journal writing

V. INFORMAL ASSESSMENT

- A. Pretests
- B. Checkpoints
- C. Learning center activities

VI. HOMEWORK

VII. FORMAL ASSESSMENT

- A. Post-tests
- B. Cumulatives
- C. Open-ended questions
- D. Projects and reports

CAREER INFUSION

I. AWARENESS OF SELF

- A. Becomes aware of personal characteristics including strengths and limitations
 - 1. Considers careers in terms of strengths and limitations
 - 2. Accurately describes own scholastic abilities
- B. Identifies a preferred lifestyle
 - 1. Understands that careers are related to lifestyle
 - 2. Identifies from a variety of life styles those most compatible with personal characteristics and needs.
- C. Relates personal needs, values, and interests to behavior decisions and careers
 - 1. Explores personal interests.
 - 2. Explores careers in terms of interests and abilities.
 - 3. Understands that one's career can combine skills and interests.

II IMPROVE HUMAN RELATIONSHIPS, INCREASE INTERPERSONAL SKILLS

- A. Reacts positively to constructive criticism.
 - 1. Gives and profits from constructive criticism.
 - 2. Use information gained through constructive criticism to effect change in self and others.
- B. Works with others regardless of sex, race, or cultural differences.
- C. Affirms the need for positive interpersonal relationships.
 - 1. Uses positive means for working with others.
 - 2. Assumes an active role in group situations.
 - 3. Understands the need for and maintains open communication.

III. IMPROVE CAREER PLANNING AND DECISION-MAKING SKILLS

- A. Able to use decision-making processes.
 - 1. Obtains adequate and relevant information for decisions.
 - 2. Uses information sources effectively in making decision.
- B. Demonstrates the ability to participate in group decision-making.
 - 1. Identifies the kinds of decisions that are made in groups.
 - 2. Participates effectively in group decision-making.

IV. IMPROVE WORK, ATTITUDES, AND APPRECIATION FOR CAREER SUCCESS

- A. Demonstrates initiative and independence
 - 1. Engages in activities independently.
 - 2. Engages in independent study and independent tasks.
- B. Exhibits positive work attitude.
 - 1. Identifies ways in which occupation, jobs, and work situations can be personally satisfying.
 - 2. Identifies ways in which workers can improve their work in terms of satisfaction.
- C. Plans and completes tasks efficiently and thoroughly.
 - 1. Demonstrates self-discipline in completing tasks.
 - 2. Values planning in organizing work and completing jobs.

- D. Uses health and safety habits.
 - 1. Explores safety aspects of jobs.
 - 2. Evidences concern for safety of self and others.

- V. **IMPROVE PROFICIENCY OF COMMUNICATION AND COMPUTATIONAL SKILLS**
 - A. Understand how good listening skills apply to careers explored.
 - B. Uses writing and speaking skills effectively.
 - 1. Uses writing and speaking skills in and out of school.
 - 2. Uses diverse writing and speaking skills effectively.

- VI. **GAIN KNOWLEDGE OF THE CAREER IMPLICATION OF SUBJECT MATTER**
 - A. Identifies career implication of school experiences.
 - 1. Explores careers and plans school experiences in terms of personal interests and skills already learned.
 - 2. Applies course content to career interests.
 - B. Relates specific school experiences to job requirements.
 - 1. Understand career implication of specific subject matter.
 - 2. Explores career in terms of educational requirements.

- VII. **ACQUIRE AND APPLY SOCIO-TECHNOLOGICAL-ECONOMIC-POLITICAL UNDERSTANDING**
 - A. Evidences technological understanding.
 - 1. Traces impact of technology on careers explored
 - 2. Acquires skills needed to work with technologies related to preferred Occupations

- VIII. **INCREASE KNOWLEDGE OF CAREER AND OCCUPATIONAL INFORMATION**
 - A. Uses knowledge of personal values, interest, needs, and limitations to explore career options by relating personal characteristics to preferred occupations.
 - B. Develop awareness of a range of career options and their requirements by developing skills which can be combined in a number of ways in different careers.

- IX. **MARKETABLE SKILLS AND ADAPTABILITY**
 - A. Understands effects of technological change.
 - 1. Explores emerging careers and occupations.
 - 2. Considers implications of future technological change on preferred occupations.

- X. **LEISURE PREFERENCES**
 - A. Identifies personal leisure preferences.
 - 1. Relates values and interests to use of leisure time.

2. Evaluates leisure activities in terms of personal values and goals.
- B. Describes the role of leisure in living: pleasure, personal, social, intellectual development, health, and fitness.
1. Assesses the value of hobbies and activities in personal development.
 2. Values leisure activities.

GIFTED AND TALENTED ACTIVITIES

Extension activities that can be offered to gifted and talented learners in the area of Language Arts may include, but not be limited to:

- I. Projects and reports to extend classroom thematic instruction.
- II. Extended research through the use of technology.
- III. The integration of the language arts and literature with other subject areas.