New High School Mathematics Decision Rubric for Eligible Students with Disabilities
Division of Special Education Services and Supports Partnership
Georgia Department of Education

High School Mathematics Decision Rubric for Eligible Students with Disabilities – 2.0
(for decision regarding Advanced Algebra: Concepts and Connections)

Rubric Explanation:

The purpose of this High School Mathematics Decision Rubric is to assist Individualized Education Program (IEP) teams as they engage in the discussion around eligible students with disabilities completing an alternate course sequence, aligned with their transition plan for post-secondary options, to meet the mathematics course requirements of State Board of Education (State Board) Rule 160-4-2.48. This rubric has been revised to align with the new course expectations included within Georgia’s K-12 Mathematics Standards that were adopted August 2021.

According to the Awarding Units of Credit and Acceptance of Transfer Credit and/or Grades State Board Rule (160-5-1.1), this rubric should only be used for students who (1) have a disability documented prior to high school that has predicated the student from achieving grade-level proficiency in mathematics; AND (2) have earned credit in Algebra: Concepts and Connections and Geometry: Concepts and Connections; AND (3) the preponderance of data indicates the student would not be able to successfully progress in the Advanced Algebra: Concepts and Connections course. Once this rubric is initiated, it should be revisited and signed annually. The IEP team’s decision should be based on the unique needs of the student, individual student data, and post-secondary goals.

Local boards of education shall award units of math credit only for courses approved by the State Board that include concepts and skills based on the state-adopted curriculum for grades 9-12. Students with disabilities, who were identified prior to enrollment in high school and have a disability affecting mathematics achievement, may follow an alternate course sequence to meet the mathematics course requirements of the graduation rule (State Board Rule 160-4-2.48). Alternate course sequences would allow a student with disabilities earning core credit in Algebra: Concepts and Connections AND Geometry: Concepts and Connections along with two other mathematics courses to satisfy the minimum mathematics requirements for high school graduation.

Special Note: Parents/guardians and students must be informed that Advanced Algebra: Concepts and Connections is required for many post-secondary opportunities and students who do not complete Advanced Algebra: Concepts and Connections in high school will have limited college and career options after high school.

Directions:

- Complete the rubric for eligible students with disabilities who (1) were identified prior to enrollment in high school, (2) have a disability affecting mathematics achievement, and (3) want to follow an alternate course sequence to meet the mathematics course requirements of State Board Rule 160-4-2.48 and will not receive appropriate benefit from participation in Advanced Algebra: Concepts and Connections or the equivalent.
  - All assurance statements must be met.
  - This document and the information included in the decision must be reviewed and documented by the IEP team and must be attached and regarded as part of the student’s IEP annually.
  - All appropriate parties must sign and certify that they understand the assurances included within the rubric on an annual basis.
**Georgia Department of Education**

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(for decision regarding Advanced Algebra: Concepts and Connections)

If "No" is selected for any statement below, the student is **NOT** eligible to follow an alternate course sequence to meet the mathematics course requirements of graduation rule 160-4-2-.48.

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>Evidence in the IEP clearly shows that:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YES</strong></td>
<td>The student's disability affects the child's involvement and progress in the general high school math curriculum, as indicated in the Present Level of Academic Achievement and Functional Performance (PLAAFP) statement.</td>
</tr>
</tbody>
</table>
| **NO**      | There is documented evidence indicating the student has received special education supports to access the course content required to meet the mathematics requirements in the Georgia High School Graduation Rule. The targeted supports, mathematics-specific IEP services, and goals address needs that require specially designed instruction for students to access and benefit from the general curriculum in the required courses. The student's academic record includes documentation of evidence-based prevention and/or intervention supports, including goals that:
1) are related to achieving mathematics content proficiency;
2) support access to and benefit from the content standards; and
3) are designed to promote the student's quantifiable academic progress in the content area state-adopted standards. This information must be documented in each of the following:
- IEP (Mathematics Goals)
- IEP (Mathematics Services) |
| **YES**     | The student has successfully earned credit for Algebra: Concepts and Connections and Geometry: Concepts and Connections, and the student has completed or is on track to complete two additional mathematics courses. This information must be documented in each of the following:
- Student’s Transcript (Earned credit/based Algebra: Concepts and Connections and Geometry: Concepts and Connections)
- Student’s Transition Plan (Course of Study based on Present Levels of Performance) |
| **NO**      | The student's progress over multiple years indicates to the IEP team that even with the provision of specialized instruction, supplementary aids and services, and program modifications, the student will not receive appropriate benefit from participation in Advanced Algebra: Concepts and Connections or the equivalent. The determination of the student's progress has been based on multiple measurements, such as benchmarks, unit assessments, progress monitoring, and the student's performance in Algebra: Concepts and Connections and Geometry: Concepts and Connections, that are valid for the content area of mathematics and that have been collected over a minimum three-year period. The student's progress monitoring data should be provided to indicate the evidence-based interventions and supports offered to support the student's growth in Algebra: Concepts and Connections and prior courses. For the specific mathematics goals documented in the IEP, indicate where this progress monitoring data are documented: |
- PLAAFP
- Multi-Tiered System of Supports
- Progress Monitoring Documentation (multiple years)
**Georgia Department of Education**

**High School Mathematics Decision Rubric for Eligible Students with Disabilities – 2.0**

*(for decision regarding Advanced Algebra: Concepts and Connections)*

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>The student’s post-secondary opportunities as outlined in the student’s transition plan’s post-secondary measurable goals and summary of transition assessment do not require Advanced Algebra: Concepts and Connections. The student currently has no future aspirations to pursue any post-secondary opportunities that require Advanced Algebra: Concepts and Connections.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>The student and the parent/guardian were apprised that Advanced Algebra: Concepts and Connections content knowledge is necessary for university admission in Georgia and will be included on the SAT, ACT, and Armed Services Vocational Aptitude Battery (ASVAB) assessments.</td>
<td></td>
</tr>
</tbody>
</table>

Check “ASSURED” for each of the following statements. If each assurance cannot be checked, the student is NOT eligible to follow an alternate course sequence to meet the mathematics course requirements of State Board Graduation Rule 160-4-2-.48.

The decision to follow an alternate course sequence for Advanced Algebra: Concepts and Connections or the equivalent and an additional advanced mathematics course is NOT based on:

**ASSURED**

- The amount of time the student has received special education services
- Excessive or extended absences
- A specific eligibility or combination of disabilities (i.e., deafness/blindness, visual, auditory, and/or motor disabilities)
- Behavior and disciplinary records
- An administrative decision made outside of the IEP team’s discussion of these participation criteria

**Final Decision**: Based on information that has been reviewed and documented by the IEP team, the student is eligible to follow an alternate course sequence to meet the mathematics course requirements of State Board Graduation Rule 160-4-2-.48. Students who complete Algebra: Concepts and Connections and Geometry: Concepts and Connections, along with two other mathematics courses, but who do not complete Advanced Algebra: Concepts and Connections or the equivalent may not be prepared for college and career post-secondary options and may not meet the mathematics admission requirements for entrance into a University System of Georgia institution or other post-secondary institutions without additional coursework.

_________ Student Initials – I understand that taking an alternate course sequence for high school mathematics may impact my eligibility to attend a University System of Georgia institution or other post-secondary institution.

This document must be attached and regarded as part of the student’s IEP annually. This Rubric can be scanned and attached to an electronic IEP.

<table>
<thead>
<tr>
<th>Parent/Guardian Name (Print):</th>
<th>Parent/Guardian (Signature):</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Name (Print):</td>
<td>Student (Signature):</td>
<td>Date:</td>
</tr>
<tr>
<td>IEP Case Manager Name (Print):</td>
<td>IEP Case Manager (Signature):</td>
<td>Date:</td>
</tr>
</tbody>
</table>
Embedded Supports

Free Mathematics Instructional Materials
GRADE 5

Unit 1: Investigating Volume of Solid Figures

Students will write expressions to represent volume and solve problems in a variety of contexts.

MATHEMATICS
The Intervention Table below provides links to intervention tasks/activities specific to this unit. The interventions support students and teachers in filling foundational gaps revealed as students work through the unit. All listed interventions are from Georgia Early and Secondary Numeracy Project.

<table>
<thead>
<tr>
<th>Standards</th>
<th>Learning Objectives</th>
<th>Name of Intervention Task/Activity</th>
<th>Skills Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.GSR.8</td>
<td>5.GSR.8.3 5.GSR.8.4</td>
<td>*Areas of Rectangles</td>
<td>Use multiplication to calculate area of rectangles</td>
</tr>
<tr>
<td>5.GSR.8</td>
<td>5.GSR.8.3 5.GSR.8.4</td>
<td>*Penny’s Box</td>
<td>Determine dimensions of a box with a given volume and reason about the economy of the box design</td>
</tr>
<tr>
<td>5.GSR.8</td>
<td>5.GSR.8.3 5.GSR.8.4</td>
<td>*Cuboid Construction</td>
<td>Given a specific volume, build rectangular prisms</td>
</tr>
<tr>
<td>5.GSR.8</td>
<td>5.GSR.8.3 5.GSR.8.4</td>
<td>*Spaced Out</td>
<td>Use a formula to calculate the volume of a rectangular prism.</td>
</tr>
<tr>
<td>5.NR.5</td>
<td>5.NR.1</td>
<td>Order of Operations</td>
<td>Use a range of strategies to solve</td>
</tr>
<tr>
<td>Standard(s) Alignment</td>
<td></td>
<td></td>
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<tr>
<td>-----------------------</td>
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<tr>
<td><strong>5.MP:</strong> Display perseverance and patience in problem-solving. Demonstrate skills and strategies needed to succeed in mathematics, including critical thinking, reasoning, and effective collaboration and expression. Seek help and apply feedback. Set and monitor goals.</td>
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<tr>
<td><strong>5.GSR.8:</strong> Examine properties of polygons and rectangular prisms, classify polygons by their properties, and discover volume of right rectangular prisms.</td>
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<tr>
<td>• <strong>5.GSR.8.3:</strong> Investigate volume of right rectangular prisms by packing them with unit cubes without gaps or overlaps. Then, determine the total volume to solve problems.</td>
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<tr>
<td>• <strong>5.GSR.8.4:</strong> Discover and explain how the volume of a right rectangular prism can be found by multiplying the area of the base times the height to solve authentic, mathematical problems.</td>
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<tr>
<td>• <strong>5.NR.5:</strong> Write, Interpret, and evaluate expressions with authentic problems.</td>
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<td></td>
<td></td>
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<tr>
<td>• <strong>5.NR.5.1:</strong> Write, interpret, and evaluate simple numerical expressions involving whole numbers with or without grouping symbols to represent actual situations.</td>
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</tbody>
</table>
Common Misconceptions

- Students may have difficulty with the concept of the BASE represents the product of two dimensions (factors) of the prism (the length and width or base and height of the rectangular base). They may leave out one of the components because of that misconception.

- When filling a solid figure, there can be no gaps or overlaps with the cubes filling the object.
## Diagnostic Assessment

This assessment will uncover students’ understandings and misunderstandings of volume of a rectangular prism.

### Agree or Disagree Statements

<table>
<thead>
<tr>
<th>STATEMENT</th>
<th>SHOW YOUR REASONING</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Diagram" /></td>
<td><img src="image" alt="Image" /></td>
</tr>
</tbody>
</table>

The volume of this right rectangular prism is **47** cubic units.

- agree  
- disagree  
- not sure

I think it depends on:

A rectangular prism with a volume of 24 cubic units will always have the same base dimensions.

- agree  
- disagree  
- not sure

I think it depends on:
Establish mathematics goals to focus learning.

- **Language Supports**: Make instructions and expectations clear for the activities.
- **Supporting the Learning**: Students will build on their experiences with the attributes of rectangular prisms (i.e., faces, edges, and vertices) from fourth grade to build or draw right rectangular prisms.

Implement tasks that promote reasoning and problem-solving.

- **Extending the Learning**: In this task, students will use rectangular prisms or draw right rectangular prisms in order to generalize a pattern for the volume of rectangular prisms. Students will have multiple opportunities to develop strategies for determining the number of ways to create a rectangular prism using 24 snap cubes.

Use and connect mathematical representations.

- **Supporting the Learning**: Students use snap cubes to connect quantities to written dimensions. Students compare and discover the number by the number of layers is the total volume.

Facilitate meaningful mathematical discourse.

- **Extending the Learning**: Students develop strategies for rectangular prisms with the same number of snap cubes, then thinking about the way the rectangular prism looks staying the same each time.

Pose purposeful questions.

- **Supporting the Learning**: Predetermine where you will pause feature within the activities. Pose purposeful, open-ended questions, and elicit student thinking to address concepts. The class into small discussion groups to work collaboratively on these questions so they can report back to the whole group. Some of the questions could be:
  - What does it mean to describe a right rectangular prism by its volume?
  - How do you find the volume of right rectangular prisms without counting all of the unit cubes?