Course Overview: Ramp Up Mathematics

The Ramp Up Mathematics Program is designed to accelerate learning for striving students in preparation to meet grade-level expectations in math. The program builds students’ competence and confidence as math learners to establish a pattern of achievement in school. Students engage in classroom skills practice, problem solving, and mathematical reasoning. The course will cover foundations of algebra, numbers and the number line, fractions, decimals and percents, ratios and graphs. Lessons incorporate a workshop model that focuses on students and their work with discussions, justifications, and presentations in a language and content rich environment. This course is designed for students’ entering middle school high school two to three years behind in mathematics.

Units and Activities: What will we be learning about and doing in this course?

Ramp Up Mathematics is built around a design that promotes investigation of math within eight units and the corresponding lessons. All lessons require students to analyze concepts deeply, to consider the validity of their problem solving strategies, and to explain their work to a partner or small group to enhance their understanding of mathematics.

Standards: What knowledge and skills will I gain by the end of this course?

This course will assess the knowledge and skills students build in key Anchor Standards and Content Standards.

Anchor Standards: This course will assess the knowledge and skills students build in the Mathematics Anchor Standards. A student will be assessed based on these Anchor Standards and/or their educational plans and have multiple opportunities to show their proficiency.

Content Standards: This course builds student knowledge using the Common Core State Standards. The content standards for Ramp Up Mathematics are:

6.NS.A Apply and extend previous understandings of multiplication and division to divide fractions by fractions.

6.NS.B Compute fluently with multi-digit numbers and find common factors and multiples.

6.NS.B.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

6.NS.B.4 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum
Assessment of Learning

Assessment Types:

Three types of assessments will be used to determine if you have gained the necessary knowledge and skills of this course: Formative assessments, Summative assessments, and Habits of Work for Learning. Each is briefly described below:

Formative Assessments: Formative = Forming my knowledge and skills. Formative Assessments receive a weight of .1 in the overall grade. Formative assessments are information for teachers, students, and parents on the progress students are making as they practice gaining knowledge and skills found in Anchor Standards. Teachers use the results of these assessments as data to understand individual student learning needs, adjust instructional pathways, and modify lessons to help students better meet course standards. Students use the results of these assessments to determine how they are progressing and to plan steps to ensure their success.

Summative Assessments: Summative = Summation of my knowledge and skills. Summative Assessments can receive three different weights: 1, 1.5, or 2 depending on the size of the assessment, and therefore have the greatest impact on the Overall Course Mastery Grade. Summative assessments are used as a measure of independent student achievement in Anchor Standards. Throughout this course, summative assessments provide benchmark student achievement data. A summative assessment will always have clear scoring criteria (4 point scale) for students to understand how they are performing.

Habits of Work for Learning: Habits of Work for Learning (HOWLs) are skills and dispositions that are essential to the learning process but do not provide evidence of what a student knows or can do in relation to content. WUHSMS teachers work to foster Habits of Work for Learning in three categories: preparation, participation, and perseverance.

Assessment Scoring:

Teachers will provide framing for summative assessment scores using proficiency level scoring criteria for grading similar to the example below:

<table>
<thead>
<tr>
<th>Anchor Standard: Ramp Up Mathematics</th>
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</thead>
<tbody>
<tr>
<td>Course Standards:</td>
</tr>
<tr>
<td>1.0*</td>
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</table>

of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor.

6.NS.C Apply and extend previous understandings of numbers to the system of rational numbers.

6.EE.A Apply and extend previous understandings of arithmetic to algebraic expressions.

6.EE.B Reason about and solve one-variable equations and inequalities.

6.EE.C Represent and analyze quantitative relationships between dependent and independent variables.
**Representation**

<table>
<thead>
<tr>
<th>NC*</th>
<th>NC*</th>
<th>NC*</th>
<th>C-</th>
<th>C+</th>
<th>B-</th>
<th>B+</th>
<th>A-</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning</td>
<td>Approaching</td>
<td>Proficient</td>
<td>Distinguished</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

I can identify the components of a system. I can represent the components of a system using numbers or variables. I can show connections between components of a system using a computational model. I can use mathematics and/or a computational representation to make predictions about how changing one variable or component will affect the system.

*scores in the "Beginning range" are well below proficient and thus they are below passing.

**Computational Modeling & Analysis**

<table>
<thead>
<tr>
<th>Representations</th>
<th>Proficient</th>
<th>Distinguished</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can use a given computational model to explore relationships between components of a system. I can use a given computational model as evidence to support a claim or explanation of a system. I can create and/or revise a computational model and use it as evidence to support a claim or explanation of a system. I can expand the computational model to illustrate how a change in a system component can impact all other relevant components.</td>
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**HOWL Scoring:**

HOWLs will be scored at least once per checkpoint, and will be based on the frequency with which students demonstrate each of the habits: preparation, participation, and perseverance.

**How is my Overall Course Grade Determined?**

Overall course grades will be reported as letter grades and will be comprised of:

- Formative & Summative Scores: 95%
- HOWLs: 5%

For more information, please see the WUHSMS student handbook.

**Communication:**

**How Do I Know My Grades?**

- On Summative Assessments, a teacher will provide both a 4-point grade and a letter grade.
- You can monitor your progress in the following ways:
  - By reading feedback and scoring returned to students on summative assessments
  - By monitoring the scores and Overall Course Mastery Grade in the Parent/Student portal on JumpRope
  - By monitoring the grades sent home quarterly through report cards

**Where Can I Find This Syllabus during the School Year?**

- This syllabus will be available on the school website in each subject’s department tab once the school year is up and running.

**How Do I See What’s Due?**
Summative assessment due dates and handouts are posted to the blue “Upcoming Assessment” section of the JumpRope Parent/Student Portal on or before the day they are assigned to students.

**How Do I See What’s Past Due?**

- If a student is missing an assessment, it will be listed in the red “Missing Assessment” section of the JumpRope Parent/Student Portal along with any attachments.

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**Materials:**

Students will work with the Ramp Up Mathematics Program materials. All materials needed for the course will be kept in the classroom.

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**Schoolwide Procedures:**

Please see the Student Handbook for Procedures and Policies related to: Due dates and deadlines, extra credit, retaking assessments, and turnaround time for grade entry.

**Personal Mobile Devices:** This class will follow the procedures outlined in the student handbook.

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**Classroom Expectations:**

Please see the Student Handbook for Procedures and Policies related to: Due dates and deadlines, extra credit, retaking assessments, and turnaround time for grade entry. Personal Mobile Devices: This class will follow the procedures outlined in the student handbook.

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**Teacher Contact Information:**

Please contact me through email at: mmcgovern@wcsu.net or (802) 457-1317 ext. 1106.

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I have read this syllabus, and I have contacted the teacher with any questions I have.
Student name (printed): ________________________________

Student Signed: ________________________________ Date: ________________

Parent/Guardian name (printed): ________________________________

Parent Signed: ________________________________ Date: ________________