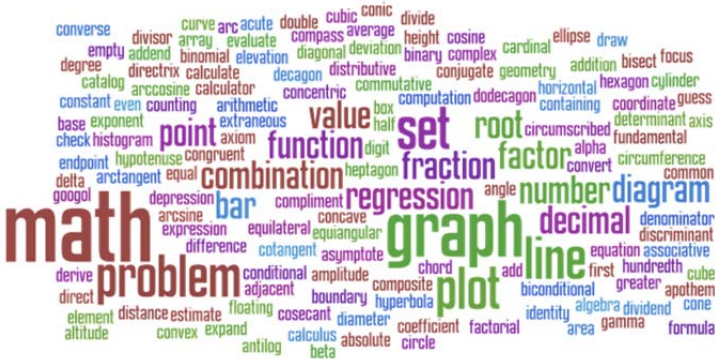
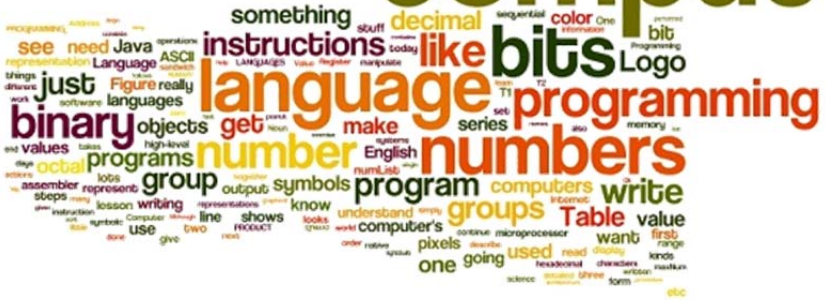




# Grades 3-8 Talented & Gifted Enrichment Curriculum 2017



# computer



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## **TALENTED AND GIFTED ENRICHMENT REVISION COMMITTEE**

Stacey Cardello	Great Neck Elementary School
Tracie Drabinski	Oswegatchie Elementary School
Heather Joyner	Clark Lane Middle School
Amy Tesler	Quaker Hill Elementary School
Craig Powers	Assistant Superintendent
Kathy Vallone	Director of Special Services

# TALENTED AND GIFTED ENRICHMENT OVERVIEW

## **Talented and Gifted/Enrichment**

Waterford has always focused the TAG identification process on the whole child but our most recent programming has only been in the area of mathematics. To this point, we have not addressed students whose strengths are outside the realm of mathematics. Our goal is to provide a well-rounded program to our identified students by incorporating multiple academic areas. We will also broaden our services to include additional students within the grade level that would benefit from enrichment. We anticipate that this will increase group sizes up to 15 students per grade per building for each unit instead of the current 2-6 students. A supplemental enrichment program will be implemented and rotated during the three trimesters to focus on Language Arts, Math and Technology.

## **Identification of Giftedness**

What is Giftedness? Just as every individual is unique and exhibits his or her own personality, “giftedness” presents itself differently in every child. A Talented and Gifted child might be a motivated high-achiever, but it is equally possible that the child’s abilities might not even be evident at first glance. A gifted student may be one who has strengths in particular academic areas but is average (or struggles) in others. In order to identify the many different types of giftedness beyond the precocious learner, we need to recognize giftedness across a broad spectrum of children with varying abilities, which may include: twice-exceptional students who are gifted learners but are also learning disabled; children whose abilities may be masked by socio-economic factors; or gifted underachievers who have fallen into behavioral patterns because they have not been sufficiently stimulated and challenged. (Source: Connecticut Association for the Gifted)

## **Talented and Gifted Screening Process:**

In grade 3, students can be recommended by their classroom teacher; by any teacher in the school or by their parent/guardian to be tested for Talented and Gifted identification. Winter MAP Scores will be used as a screening for students. Students with scores at or above the 90<sup>th</sup> percentile on both the reading and math will be considered for testing. *Note: Scoring in the 90<sup>th</sup> percentile is not required if student is recommended for testing.* All third grade students will participate in two whole class exploration activities with the enrichment teacher. Enrichment teachers will consult with classroom teacher to review students’ performance.

## **Talented and Gifted Testing Procedure:**

The formal testing procedures will occur in the third trimester of 3<sup>rd</sup> grade. *Note: Any student recommended for TAG testing, regardless of grade, will be tested at this same time.*

## **Multi-criterion considered for TAG Identification:**

Winter MAPS scores

Otis-Lennon Schools Abilities Test\*

Parent Checklist

Teacher Checklist (filled out by classroom teacher or teacher that recommended the child)

## TALENTED AND GIFTED ENRICHMENT OVERVIEW

Students who score a 130 or higher (full scale) Otis-Lennon Schools Abilities Test will be identified as Talented and Gifted. This score marks the 97<sup>th</sup> percentile. Students who have a full scale intelligence test score of 97<sup>th</sup> percentile or higher *will also be identified as Talented and Gifted.* For some students, using the GAI score instead of the full scale IQ score is the better choice. If the evaluator determines the GAI score is a better choice for the student then this score must also be in the 97<sup>th</sup> percentile or higher.

Students identified as Talented and Gifted will have first priority in participation in the Enrichment Units in grades 4 and 5.

\* Students on 504 plans or Individual Educational Plan with test modifications will be given an individual intelligence test in order to best assess their ability level.

### **Enrichment Program**

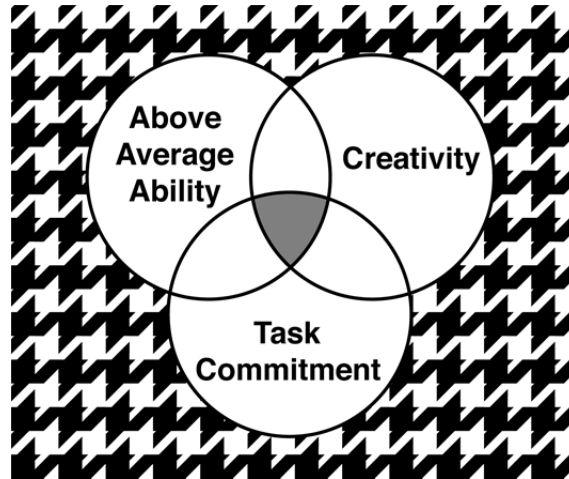
Enrichment opportunities will be offered for up to 15 students\* per grade-level in grades four and five throughout the year. Students who are identified as Talented and Gifted will have first priority of participating. Students will be recommended by the classroom teacher and/or enrichment teacher. Students' MAP scores will also be considered. To ensure students keep up with their regular classroom academics, enrichment groups will meet every other day. *\*If the recommended number of students exceeds 15, priority will be given to those who have yet to participate.*

The enrichment program will have three sessions and will follow the three trimesters. The three broad categories are Language Arts, Math and Technology.

Year	Grade	Trimester 1	Trimester 2	Trimester 3	Daily Time	Students Serviced
2016-17	3	N/A	N/A	Formal ID / Exploration	Varies	Varies
2016-17	4	Supplanted Math	Supplanted Math	Supplanted Math	60 minutes	12
2016-17	5	Supplanted Math	Supplanted Math	Supplanted Math	60 minutes	15
2017-18	3	N/A	N/A	Formal ID / Exploration Activities	6-8 lessons during Trimester 3	All
2017-18	4	<b>Math Unit</b> M3: Awesome Algebra	<b>Language Arts Unit</b> Word Sleuths	<b>Technology Unit</b> Coding	45 minutes 2 out of 4 days	45
2017-18	5	<b>Math Unit</b> M3: What Are Your Chances?	<b>Language Arts Unit</b> Word Masters Challenge	<b>Technology Unit</b> Coding	45 minutes 2 out of 4 days	45

## TALENTED AND GIFTED ENRICHMENT OVERVIEW

Students who are chosen to participate should possess the following characteristics: Above average ability in a particular area; Creativity; and Task Commitment.



(Source: Renzulli)

**ENRICHMENT will be two days per 4-day rotation for forty-five minutes. Providing enrichment in this way:**

- Allows students to keep up with classroom content and expectations.
- Enables many of the same students to participate in enrichment all year long (for example, TAG identified students)
- Ease student anxiety from missing class every day
- Provide enough time for classroom teachers to collect data to complete the report card at the end of trimester.

**Students will need to maintain a high level of engagement to remain in an enrichment unit. Students may be exited from enrichment at any time during the course of the academic year for the following reasons:**

- Failure to meet acceptable levels of academic performance within the Enrichment class.
- Failure to maintain acceptable levels of academic performance within their regular classroom including homework completion.

## SAMPLE GRADE 3 EXPLORATORY ACTIVITIES

### EXPLORATORY ACTIVITY 1: CREATIVE STEM ACTIVITY: DROPS ON A COIN

*Drops on a Coin* presents students with the following challenge: how many drops of water fit on each coin? Are there factors that influence the number of drops that fit on each coin? Students collaborate to test their predictions and record their results.

#### Materials:

- Various coins
- Eye droppers
- Paper towels
- Water
- Student recording sheet

#### Experiment:

1. Wash and rinse a penny in tap water. Dry it completely with a paper towel.
2. Place the penny on a flat surface.
3. Use an eyedropper to draw water and drop individual drops of water onto the flat surface of the penny.
4. Keep track of the water drops as you add them, one at a time, until water runs over the edge of the penny.

#### Student Recording Sheet:

Coin	Prediction	Trial 1	Trial 2	Trial 3	Trial 4	Average
Penny						
Other						

#### Background Teacher information:

There are two properties at work in this experiment: cohesion and surface tension. Cohesion is the attraction of like molecules to one another. In this case, the like molecules are the H<sub>2</sub>O molecules in the water drops. Surface tension is a special term we use to describe the cohesion between water molecules.

Water's cohesion and surface tension are special because of hydrogen bonds. Hydrogen bonds are formed by the hydrogen atoms of one molecule being attracted to the oxygen atoms of another molecule.

## SAMPLE GRADE 3 EXPLORATORY ACTIVITIES

The cohesion and surface tension of water becomes apparent when the drops of water you add to the penny reach the penny's edge. Once the water has reached the edge, you begin to see a bubble or dome of water forming on top of the penny. The bubble shape is a result of the water molecules clinging to one another in an optimal shape (just like the bonds on the surface of a blown bubble).

### **EXPLORATORY ACTIVITY 2: CRITICAL THINKING ACTIVITY: THE HANDS ON EQUATIONS LEARNING SYSTEM BY HENRY BORESON, ED.D.**

The Hands-On Equations Learning System presents a physical and intuitive model of the world of basic algebra! The students simply transform the given abstract equation into its physical counterpart, and then proceed to solve the given equation through the use of physical “legal moves.”

#### **Materials:**

- Laminated balance scale
- 8 blue pawns
- 2 red cubes, numbered 0-5
- 2 red cubes, numbered 5-10

#### **Lesson Outline:**

- Teacher displays various problems on a physical scale or on the Promethean Board
- Students need to grasp the concept that both sides of the scale must have the same value for the scale to balance
- Students can then be presented with other “physical equations” which they are to solve by trial and error methods
- Students are reminded that the pawn has a special name, “X”
- Students are given the Hands on Equation materials so they can set up the problems on their desks
- Students solve by trial and error methods as in Lesson #1
- Teacher poses to the class a problem such as  $4x + 2 = 3x + 9$
- Students set up this problem at their desks and attempt to solve it – because this may challenge many students – teacher asks if they “want to learn an easier way of getting the answer than by trial and error.”
  - Teacher shows students “legal move” – if one pawn is removed simultaneously from each side of the balanced setup, that the scale will still balance
- Students now solve similar problems for students to set up and solve own their own, using “legal moves” if they wish
- Students learn that subtracting the same number-cube value from each side of a balanced setup leaves the setup in balance



**GRADE 4 ENRICHMENT**  
**MATH UNIT: M3: AWESOME ALGEBRA**

In this unit students are encouraged to study patterns and determine how they change, how they can be extended or repeated and/or how they grow. They then move beyond this to organize the information systematically and analyze it to develop generalizations about the mathematical relationships in the patterns. There is a strong focus on mathematical discourse revolving around how to verbalize a generalization. When students are encouraged to make up a rule that explains a discovery, they are using algebraic reasoning. In this unit, students will be encouraged to use the idea of a variable as they think about how to represent a rule.

There is a unit project introduced at the beginning of the unit. Student will create an Awesome Algebra Game. As student work with patterns they create game cards to use in their game. By the end of the unit, they will have created several cards to use in the design of their game.

(Source: Mentoring Mathematical Minds)

## GRADE 4 ENRICHMENT

### MATH UNIT: M3: AWESOME ALGEBRA

#### **Objectives:**

#### **Mentoring Mathematics Minds:**

- Students will describe, extend and make generalization about patterns.
- Students will build numeric patterns.
- Students represent and analyze patterns using words, tables and symbols.
- Students will identify such mathematical properties as communicative and associative.
- Students will represent the idea of a variable as an unknown quantity using a letter or symbol.
- Students will use invented notation, standard symbols and variables to express a pattern, generalization or situation.

#### **National Gifted and Talented Standards:**

- 3.1 Students with gifts and talents demonstrate growth commensurate with aptitude during the school year.
- 3.2 Students with gifts and talents become competent in multiple area and across dimensions of learning.
- 3.6 Students with gifts and talents benefit from gifted education programming that provides a variety of high resources and materials.
- 4.1 Students with gifts and talents demonstrate growth in personal competence and dispositions for exceptional academic and creative productivity. These include self-awareness, self-advocacy, self-efficacy, confidence, motivation, resilience, independence, curiosity, and risk taking.
- 4.3 Students with gifts and talents demonstrate personal and social responsibility and leadership.

#### **Mathematical Practices (MP) Common Core Standards:**

1. Make sense of problems and persevere in problem solving.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools and strategically.
6. Attend to precision.
7. Look for and make sense of structure.
8. Look for and express regularity in repeated reasoning.

#### **Essential Questions:**

- *Why do mathematicians make predictions and generalizations?*
- *How can mathematicians share what they know?*
- *How does thinking about patterns help make generalizations which can apply to other things?*

**GRADE 4 ENRICHMENT**  
**MATH UNIT: M3: AWESOME ALGEBRA**

Enrichment Unit Expectations	Instructional Strategies	Evidence of Learning
<b>Problem Solving</b>	<ul style="list-style-type: none"> <li>• Curriculum Compacting</li> <li>• Pre-Testing</li> <li>• Talk Moves</li> <li>• Teacher Modeling</li> <li>• Cooperative Learning</li> <li>• Peer Conferencing</li> <li>• Graphic Organizers</li> <li>• Mini Lessons</li> </ul>	<ul style="list-style-type: none"> <li>• Observations</li> <li>• Math Journals</li> <li>• Individual work samples</li> <li>• Group Discussions</li> <li>• Student-Teacher Conferences</li> <li>• Unit Project</li> </ul>
Build new mathematical knowledge through problem solving		
Apply and adapt a variety of appropriate strategies to solve problems		
Monitor and reflect on the process of mathematical problem solving		
<b>Reasoning and Proof</b>		
Make and investigate mathematical conjectures		
Develop and evaluate mathematical arguments		
<b>Communication</b>		
Organize and consolidate their mathematical thinking through communication		
Communicate their mathematical thinking coherently and clearly to peers and teachers		
Analyze and evaluate mathematical thinking and strategies of others		
Use the language of mathematical to express mathematical ideas precisely		
<b>Connections</b>		
Recognize and use connections among mathematical ideas		
Understand how mathematical ideas interconnect and build on one another to produce a coherent whole		
Recognize and apply mathematics to contexts outside of mathematics		
<b>Representation</b>		
Create and use representations organize, record and communicate mathematical ideas		
Use representations to model and interpret mathematical phenomena		

**GRADE 4 MATH UNIT RESOURCES**

- M3 Teacher Manual
- M3 Student Journals
- M3 Student Resources

## **GRADE 4 ENRICHMENT LANGUAGE ARTS UNIT: WORD SLEUTHS**

Creative and critical thinking skills converge in this Word Sleuths problem solving unit. Creative thinking will be stimulated through short story analysis and original story creations. Critical thinking skills will be sharpened through deductive reasoning activities that allow for analyzing and synthesizing various sources. Deductive reasoning is a process in which a logical conclusion is based on multiple pieces of information that are assumed to be true.

The unit will promote the following:

- Growth in imagination and intuitive functioning
- Encourage divergent thinking
- Thought provoking experiences that develop cooperative, rather than competitive, learning
- Develop better readers and thinkers
- Ensure involvement on the part of each participant
- Encourage feelings of group and individual success

(Source: Nathan Levy's *Stories with Holes*)

## **GRADE 4 ENRICHMENT LANGUAGE ARTS UNIT: WORD SLEUTHS**

### **Objectives:**

- Students will solve a variety of logic puzzles.
- Students will deduce solutions to short stories using inferencing skills.
- Students will compose an original “story with holes.”
- Students will accurately use 4<sup>th</sup> grade academic language to express ideas.

### **English Language Arts Common Core Standards:**

CCSS.ELA-Literacy.L.4.5, L.5.5, L.6.5, L.7.5 and L.8.5: Demonstrate understanding of figurative language, word relationships and nuances in word meanings.

CCSS.ELA-Literacy.L.6.5b: Use the relationship between particular words (e.g., cause/effect) to better understand each of the words.

CCSS.ELA-Literacy.L.8.5c: Distinguish among the connotations (associations) of words with similar denotations (definitions)

### **National Gifted and Talented Standards:**

3.1 Students with gifts and talents demonstrate growth commensurate with aptitude during the school year.

3.2 Students with gifts and talents become more competent in multiple talent areas across dimensions of learning.

3.6 Students with gifts and talents benefit from gifted education programming that provides a variety of high quality resources and materials.

4.1 Students with gifts and talents demonstrate growth in personal competence and dispositions for exceptional academic and creative productivity. These include self-awareness, self-advocacy, self-efficacy, confidence, motivation, resilience, independence, curiosity and risk taking.

4.3 Students with gifts and talents demonstrate personal and social responsibility and leadership skills.

**GRADE 4 ENRICHMENT  
LANGUAGE ARTS UNIT: WORD SLEUTHS**

**Essential Questions:**

- *How can I infer meaning from a story with limited information?*
- *How does the wrong answer help me find the right answer?*
- *How can I create a story with “just enough information?”*

Enrichment Unit Expectations	Instructional Strategies	Evidence of Learning
Demonstrate understanding of figurative language, word relationships and nuances in word meanings.	<ul style="list-style-type: none"> <li>• Teacher Modeling</li> <li>• Cooperative Learning</li> <li>• Peer Conferencing</li> <li>• Graphic Organizers</li> <li>• Mini Lessons</li> <li>• Word games</li> <li>• Puzzles</li> <li>• Writers Craft</li> </ul>	<ul style="list-style-type: none"> <li>• Observations</li> <li>• Journals</li> <li>• Individual work samples</li> <li>• Group Discussions</li> <li>• Student-Teacher Conferences</li> </ul>
Implement logical thinking techniques, such as the “cross-out and circle” technique.		
Broaden students’ critical and creative thinking skills.		
Identify and explain ideas and/or answers using sequential and logical reasoning.		
Develop analytic and interpretive skills.		
Develop fluency, flexibility, elaboration and/or originality in determining possible solutions.		
Create original “story with holes.”		

**LANGUAGE ARTS UNIT RESOURCES**

- Perplexers
- Stories with Holes by Nathan Levy

## **GRADE 4 ENRICHMENT TECHNOLOGY UNIT: CODING**

Computer science and computing-related fields have long been introduced to young people in a way that is disconnected from their interests and values – emphasizing technical detail over creative potential. Creative computing supports the development of personal connections to computing, by drawing upon creativity, imagination, and interests.

Many young people with access to computers participate as consumers, rather than designers or creators. Creative computing emphasizes the knowledge, practices, and fundamental literacies that young people need to create the types of dynamic and interactive computational media that they enjoy in their daily lives.

Engaging in the creation of computational artifacts prepares young people for more than careers as computer scientists or programmers. It supports young people’s development as computational thinkers – individuals who can draw on computational concepts, practices, and perspectives in all aspects of their lives, across disciplines and contexts.

The ability to code computer programs is an important part of literacy in today’s society. When people learn to code in Scratch, they learn important strategies for solving problems, designing projects, and communicating ideas. Scratch is designed especially for ages 8 to 16, but is used by people of all ages. Scratch is a project of the MIT Media Lab. With Scratch, students can program their own interactive stories, games, or animations. Scratch will help students learn to think creatively, reason systematically, and work collaboratively — essential skills for life in the 21st century.

Using the Scratch program allows us the opportunity to provide differentiated instruction for both grades four and five. This is crucial as the amount of student’s prior knowledge will influence how far individual students are able to progress within this unit. (Source: scratch.com)

**Students will learn the basics of coding by using *CS First* working through the following themes: Art, Music and Game Design.**

## **GRADE 4 ENRICHMENT TECHNOLOGY UNIT: CODING**

### **Objectives:**

#### **International Society for Technology in Education (ISTE):**

- Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.
- Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
- Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.
- Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.
- Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

#### **Mathematics Common Core Standards:**

- Make sense of problems and persevere in solving them
- Model with Mathematics
- Attend to precision
- Look for and make use of structure

#### **English Language Arts Common Core Standards:**

- Use technology and digital media strategically and capably

#### **21<sup>st</sup> Century Learning Skills:**

- Thinking creatively
- Communicating clearly
- Analyzing systematically
- Collaborating effectively
- Learning continuously

#### **National Association for Gifted Children Standards:**

- 2.3 Students with identified needs represent diverse backgrounds and reflect the total student population of the district.
- 3.1 Students with gifts and talents demonstrate growth commensurate with aptitude during the school year
- 3.2 Students with gifts and talents become more competent in multiple talent areas and across dimensions of learning.
- 3.6 Students with gifts and talents benefit from gifted education programming that provides a variety of high quality resources and materials.



## GRADE 4 ENRICHMENT TECHNOLOGY UNIT: CODING

- 4.1 Students with gifts and talents demonstrate growth in personal competence and dispositions for exceptional academic and creative productivity. These include self-awareness, self-advocacy, self-efficacy, confidence, motivation, resilience, independence, curiosity, and risk taking.
- 4.3 Students with gifts and talents demonstrate personal and social responsibility and leadership skills.

**Essential Questions:**

- *How can we use algorithms in our daily lives?*
- *Is sequence important when writing programs?*
- *How can we make our programs more efficient?*
- *How can we stay safe while using technology?*
- *Can you use technology to create an animation, stories, or games?*

Enrichment Unit Expectations	Instructional Strategies	Evidence of Learning
Activities engage students in solving debugging challenges, which encourage students to discover different ways of finding and solving problems.	<ul style="list-style-type: none"> <li>● Mini Lessons</li> <li>● Teacher Modeling</li> <li>● Cooperative Learning</li> <li>● Use of computers</li> </ul>	<ul style="list-style-type: none"> <li>● Observations</li> <li>● Individual work samples</li> <li>● Group Discussions</li> <li>● Student-Teacher Conferences</li> </ul>
Students can express abstract concepts and demonstrate their understandings of quantitative relationships such as variables through visual representations they design		
Students are challenged to represent previously learned equations, data comparisons, or other mathematical relationships		
Students recognize the importance of attending to detail when specifying instructions or a sequence of code intended to elicit a particular outcome		
Students look closely to discern repeated patterns or structure within their own or others'		

## TECHNOLOGY UNIT RESOURCES

- [scratch.mit.edu](http://scratch.mit.edu)
- [code.org](http://code.org)
- iPads or Chromebooks

**GRADE 5 ENRICHMENT**  
**MATHEMATICS UNIT: M3: WHAT ARE YOUR CHANCES?**

In this unit, students begin their exploration of probability as a measurement of the likelihood of events. The unit is designed to engage students as mathematicians conducting and analyzing experiments that involve the likelihood of events happening. It extends beyond the actual activities, like flipping coins or pulling colored chips from a brown paper bag, by focusing on the mathematics behind the experiments. Students have an opportunity to think deeply about the big ideas of probability as they conduct experiments, gather data, and analyze results. They will make predictions, discover patterns, make generalizations and justify their reasons, just like mathematicians. The unit culminates with students creating their own carnival games based on the laws of probability.

(Source: Mentoring Mathematical Minds)

**GRADE 5 ENRICHMENT**  
**MATHEMATICS UNIT: M3: WHAT ARE YOUR CHANCES?**

**Objectives:**

**Mentoring Mathematics Minds:**

- Students will understand and apply basic concepts of probability.
- Students will describe events as likely or unlikely and discuss the degree of likelihood using words as certain, equally likely and impossible.
- Students will predict the probability of outcomes of simple experiments and test predictions.
- Students will understand that the measure of likelihood of an event can be represented by a number from 0 to 1.
- Students will use an understanding of probability to make and test conjectures about the results of experiments and simulations.
- Students will compute probabilities for simple compound events, using such methods as organized lists, tree diagrams and charts.
- Students will determine and compare theoretical and experimental probabilities of events.
- Students will develop an understanding of the Law of Large Numbers.
- Students will use probability and the concept of fairness to analyze whether or not a game is fair.
- Students will create fair and unfair games using the laws of probability.

**Mathematical Practices (MP) Common Core Standards:**

1. Make sense of problems and persevere in problem solving.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools and strategically.
6. Attend to precision.
7. Look for and make sense of structure.
8. Look for and express regularity in repeated reasoning.

**National Gifted and Talented Standards:**

- 3.1 Students with gifts and talents demonstrate growth commensurate with aptitude during the school year.
- 3.2 Students with gifts and talents become competent in multiple areas and across dimensions of learning.
- 3.6 Students with gifts and talents benefit from gifted education programming that provides a variety of high resources and materials.
- 4.1 Students with gifts and talents demonstrate growth in personal competence and dispositions for exceptional academic and creative productivity. These include self-awareness, self-advocacy, self-efficacy, confidence, motivation, resilience, independence, curiosity, and risk taking.
- 4.3 Students with gifts and talents demonstrate personal and social responsibility and leadership.

**GRADE 5 ENRICHMENT  
MATHEMATICS UNIT: M3: WHAT ARE YOUR CHANCES?**

<p><b>Essential Questions</b></p> <ul style="list-style-type: none"> <li>- <i>What is fair?</i></li> <li>- <i>How do we know if a game is fair?</i></li> </ul>
--

Enrichment Unit Expectations	Instructional Strategies	Evidence of Learning
<b>Problem Solving</b>	<ul style="list-style-type: none"> <li>• Curriculum Compacting</li> <li>• Pre-Testing</li> <li>• Talk Moves</li> <li>• Teacher Modeling</li> <li>• Cooperative Learning</li> <li>• Peer Conferencing</li> <li>• Graphic Organizers</li> <li>• Mini Lessons</li> </ul>	<ul style="list-style-type: none"> <li>• Observations</li> <li>• Math Journals</li> <li>• Individual work samples</li> <li>• Group Discussions</li> <li>• Student-Teacher Conferences</li> <li>• Unit Project</li> </ul>
Build new mathematical knowledge through problem solving		
Apply and adapt a variety of appropriate strategies to solve problems		
Solve problems that arise in mathematics		
Monitor and reflect on the process of mathematical problem solving		
<b>Reasoning and Proof</b>		
Make and investigate mathematical conjectures		
Develop and evaluate mathematical arguments		
<b>Communication</b>		
Organize and consolidate their mathematical thinking through communication		
Communicate their mathematical thinking coherently and clearly to peers and teachers		
Analyze and evaluate mathematical thinking and strategies of others		
Use the language of mathematical to express mathematical ideas precisely		
<b>Connections</b>		
Recognize and use connections among mathematical ideas		
Recognize and apply mathematics to contexts outside of mathematics		
<b>Representation</b>		
Create and use representations organize, record and communicate mathematical ideas		
Use representations to model and interpret mathematical phenomena		
Select, apply ad translate among mathematical representations to solve problems		

**MATHEMATICS UNIT RESOURCES**

- M3 Teacher Manual
- M3 Student Journals
- M3 Student Resources

## **GRADE 5 ENRICHMENT LANGUAGE ARTS UNIT: WORDMASTERS**

Two of the major shifts encompassed by CCSS with regard to ELA are to read more challenging material and to increase vocabulary. Complex texts are those that rely on figurative, ironic, ambiguous, purposefully misleading, archaic or otherwise unfamiliar language or on general academic and domain-specific vocabulary. The standards employ a model for conceptualizing categories of words as:

- Tier One – everyday speech
- Tier Two – general academic words
- Tier Three – domain specific words

The vast majority of WordMasters words fall into Tier Two, vocabulary that is far more likely to appear in written texts than in speech. Tier Two words often represent subtle or precise ways to say relatively simple things--saunter instead of walk, for example. Because Tier Two words are found across many types of texts, they are highly generalizable.

The grade 5 WordMasters unit is designed to improve students' vocabulary skills using analogies. It will further develop students' verbal reasoning abilities, address higher order thinking skills as well as emphasizing logical thinking and reading comprehension. Students learn to think both analytical and metaphorically. Through a variety of vocabulary building activities, students will increase their word power.

(Source: WordMasters Challenge)

## **GRADE 5 ENRICHMENT LANGUAGE ARTS UNIT: WORDMASTERS**

### **Objectives:**

- Students will analyze figurative language, word relationships, and slight differences in word meanings.
- Students will use a variety of strategies to determine the meaning of unknown words and phrases.
- Students will accurately use 5<sup>th</sup> grade academic language to express ideas.

### **English Language Arts Common Core Standards:**

CCSS.ELA-Literacy. L.5.5, L.6.5, L.7.5 and L.8.5: Demonstrate understanding of figurative language, word relationships and nuances in word meanings.

CCSS.ELA-Literacy.L.5.5.c: Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

CCSS.ELA-Literacy.L.6.5b: Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.

CCSS.ELA-Literacy.L.8.5c: Distinguish among the connotations (associations) of words with similar denotations (definitions)

### **National Gifted and Talented Standards:**

3.1 Students with gifts and talents demonstrate growth commensurate with aptitude during the school year.

3.2 Students with gifts and talents become more competent in multiple talent areas across dimensions of learning.

3.6 Students with gifts and talents benefit from gifted education programming that provides a variety of high quality resources and materials.

4.1 Students with gifts and talents demonstrate growth in personal competence and dispositions for exceptional academic and creative productivity. These include self-awareness, self-advocacy, self-efficacy, confidence, motivation, resilience, independence, curiosity and risk taking.

4.3 Students with gifts and talents demonstrate personal and social responsibility and leadership skills.

## GRADE 5 ENRICHMENT LANGUAGE ARTS UNIT: WORDMASTERS

**Essential Questions** (that go with the objectives)

- *How do I develop a better understanding of words and their usage?*
- *What are the benefits and risks of taking a chance with language?*

Enrichment Unit Expectations	Instructional Strategies	Evidence of Learning
Demonstrate understanding of figurative language, word relationships and nuances in word meanings.	<ul style="list-style-type: none"> <li>• Teacher Modeling</li> <li>• Cooperative Learning</li> <li>• Peer Conferencing</li> <li>• Graphic Organizers</li> <li>• Mini Lessons</li> <li>• Word games</li> <li>• Puzzles</li> <li>• Writers Craft</li> <li>• Active Games</li> </ul>	<ul style="list-style-type: none"> <li>• Observations</li> <li>• Word Journals</li> <li>• Individual work samples</li> <li>• Group Discussions</li> <li>• Student-Teacher Conferences</li> </ul>
Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., knew, believed, suspected, heard, wondered).		
Identify and apply the different types of analogies (e.g. antonyms, synonyms, part/whole, tool and its action, etc.)		
Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.		
Distinguish among the connotations (associations) of words with similar denotations (definitions).		

### LANGUAGE ARTS UNIT RESOURCES

- WordMasters Challenge word lists
- Spelling City: <https://www.spellingcity.com/analogies.html>
- Quizlet: Analogies: <https://quizlet.com/4921089/types-of-analogies-flash-cards/>

## **GRADE 5 ENRICHMENT TECHNOLOGY UNIT: CODING**

Computer science and computing-related fields have long been introduced to young people in a way that is disconnected from their interests and values – emphasizing technical detail over creative potential. Creative computing supports the development of personal connections to computing, by drawing upon creativity, imagination, and interests.

Many young people with access to computers participate as consumers, rather than designers or creators. Creative computing emphasizes the knowledge, practices, and fundamental literacies that young people need to create the types of dynamic and interactive computational media that they enjoy in their daily lives.

Engaging in the creation of computational artifacts prepares young people for more than careers as computer scientists or programmers. It supports young people’s development as computational thinkers – individuals who can draw on computational concepts, practices, and perspectives in all aspects of their lives, across disciplines and contexts.

The ability to code computer programs is an important part of literacy in today’s society. When people learn to code in Scratch, they learn important strategies for solving problems, designing projects, and communicating ideas. Scratch is designed especially for ages 8 to 16, but is used by people of all ages. Scratch is a project of the MIT Media Lab. With Scratch, students can program their own interactive stories, games, or animations. Scratch will help students learn to think creatively, reason systematically, and work collaboratively — essential skills for life in the 21st century.

Using the Scratch program allows us the opportunity to provide differentiated instruction for both grades four and five. This is crucial as the amount of student’s prior knowledge will influence how far individual students are able to progress within this unit. (Source: [scratch.com](http://scratch.com))



## **GRADE 5 ENRICHMENT TECHNOLOGY UNIT: CODING**

**Using *DK Coding Games in Scratch*, by Jon Woodcock, students will:**

- Build their own computer projects using Scratch
- Build single and multiplayer platform games, create puzzles and memory games, race through mazes, add animation, and more
- Learn important strategies for solving problems, designing projects, and communicating ideas
- Learn how to think creatively, work collaboratively, and reason systematically

**Using *Creative Computing Scratch 2.0* (<https://scratch.mit.edu>), students will:**

- Be introduced to the computational concepts of conditionals, operators, and data (variables and lists)
- Become more familiar with the computational practices of experimenting and iterating, testing and debugging, reusing and remixing, and abstracting and modularizing by building and extending a self-directed maze, pong, or scrolling game project
- Identify and understand common game mechanics
- Learners may create a self-remix by extending a previously started project
- Be introduced to various hardware extensions that connect Scratch to the physical world
- Gain more fluency in computational concepts and practices by exploring the newest Scratch features (video sensing, cloning)
- Experiment with designing learning experiences for others
- Be introduced to the format of a hackathon event
- Demonstrate knowledge of computational concepts (sequence, loops, events, parallelism, conditionals, operators, data) and practices (experimenting and iterating, testing and debugging, reusing and remixing, abstracting and modularizing) by defining, developing, and presenting a personally meaningful, self-directed project
- Have opportunities for collaboration by working in peer teams, sharing skills, and giving and receiving feedback

## **GRADE 5 ENRICHMENT TECHNOLOGY UNIT: CODING**

### **Objectives:**

#### **International Society for Technology in Education (ISTE):**

- Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.
- Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
- Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.
- Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.
- Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

#### **Mathematics Common Core Standards:**

- Make sense of problems and persevere in solving them
- Model with Mathematics
- Attend to precision
- Look for and make use of structure

#### **English Language Arts Common Core Standards:**

- Use technology and digital media strategically and capably

#### **21<sup>st</sup> Century Learning Skills:**

- Thinking creatively
- Communicating clearly
- Analyzing systematically
- Collaborating effectively
- Learning continuously

#### **National Association for Gifted Children Standards:**

- 2.3 Students with identified needs represent diverse backgrounds and reflect the total student population of the district.
- 3.1 Students with gifts and talents demonstrate growth commensurate with aptitude during the school year
- 3.2 Students with gifts and talents become more competent in multiple talent areas and across dimensions of learning.
- 3.6 Students with gifts and talents benefit from gifted education programming that provides a variety of high quality resources and materials.

## GRADE 5 ENRICHMENT TECHNOLOGY UNIT: CODING

- 4.1 Students with gifts and talents demonstrate growth in personal competence and dispositions for exceptional academic and creative productivity. These include self-awareness, self-advocacy, self-efficacy, confidence, motivation, resilience, independence, curiosity, and risk taking.
- 4.3 Students with gifts and talents demonstrate personal and social responsibility and leadership skills.

**Essential Questions:**

- *How can we use algorithms in our daily lives?*
- *Is sequence important when writing programs?*
- *How can we make our programs more efficient?*
- *How can we stay safe while using technology?*
- *Can you use technology to create an animation, stories, or games?*

Enrichment Unit Expectations	Instructional Strategies	Evidence of Learning
Activities engage students in solving debugging challenges, which encourage students to discover different ways of finding and solving problems.	<ul style="list-style-type: none"> <li>● Mini Lessons</li> <li>● Teacher Modeling</li> <li>● Cooperative Learning</li> <li>● Use of computers</li> </ul>	<ul style="list-style-type: none"> <li>● Observations</li> <li>● Individual work samples</li> <li>● Group Discussions</li> <li>● Student-Teacher Conferences</li> </ul>
Students can express abstract concepts and demonstrate their understandings of quantitative relationships such as variables through visual representations they design		
Students are challenged to represent previously learned equations, data comparisons, or other mathematical relationships		
Students recognize the importance of attending to detail when specifying instructions or a sequence of code intended to elicit a particular outcome		
Students look closely to discern repeated patterns or structure within their own or others'		

## TECHNOLOGY UNIT RESOURCES

- [scratch.mit.edu](http://scratch.mit.edu)
- [code.org](http://code.org)
- iPads or Chromebooks

## MIDDLE SCHOOL ENRICHMENT

In the past, grade 6 TAG students were exposed to the majority of the middle school math curriculum in order to be ready for Algebra in grade 7. We found since the implementation of the Common Core with the increase in the rigor of our new Math Curriculum this was not as effective. Prior to 2014, the decision was made to adjust the TAG curriculum to include ALL of the grades 6, 7, and 8 curricula to be taught in grades 6 & 7. This is 3 years of math covered in two years- at a pace and depth appropriate for our TAG students. This was also the plan of our Accelerated path, with the difference intended to be in the area of depth (the TAG class could potentially go into more depth than the accelerated class). As time has passed, and the ability to more readily differentiate instruction with various problem sets and technology, we believe the needs of TAG students can be met within our Accelerated path, making the need for a separate, pull-out TAG Math class not to be needed. As a school, we are continuously looking to enrich all of our students, including those with TAG identification, in their area of strength and talent, through differentiated instruction in the classroom, and through our elective offerings. Currently, there are four full-year electives and eighteen trimester-based electives for students in grades 6-8 to elect.

## MIDDLE SCHOOL ENRICHMENT

	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Grade 6	<b>TAG Math 6</b> (Grade 6 curriculum & ½ grade 7)	<b>TAG Math 6</b> (Grade 6 curriculum & ½ grade 7)	<b>TAG Math 6</b> (Grade 6 curriculum & ½ grade 7)	NO <b>TAG Math 6</b> to be offered. Needs met in Accelerated Math.	
	<b>Accelerated Math:</b> Offered by team teachers- generally 2 sections per year. Moves through Grade 6 curriculum & ½ of grade 7 at a faster pace and with more depth for those capable of learning at that rate. Intent is to prepare these students for Algebra 1 in Grade 8.			<b>Accelerated Math</b> TAG students to be integrated into this course as curriculum for TAG and Accelerated has been the same since 14-15	<b>Accelerated Math</b>
	<b>Grade 6 Math:</b> Majority of grade 6 students. Covers grade 6 curriculum. Students on grade level path will likely take Algebra 1 in grade 9.				<b>Grade 6 Math</b>

	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Grade 7	<b>TAG Math 7</b> (Algebra 1)	<b>TAG Math 7</b> (2 <sup>nd</sup> ½ of grade 7 curriculum & gr 8)	<b>TAG Math 7</b> (2 <sup>nd</sup> ½ of grade 7 curriculum & gr 8)	<b>TAG Math 7</b> Final year to accommodate students who started with TAG Math 6	No <b>TAG Math 7</b> to be offered. Needs met in Accelerated Math.
	<b>Accelerated Math:</b> Offered by team teachers- generally 2 sections per year. Moves through 2 <sup>nd</sup> ½ of Grade 7 curriculum and grade 8, thus preparing students for Algebra 1 in grade 8.				<b>Accelerated Math</b>
	<b>Grade 7 Math:</b> Majority of grade 7 students. Covers grade 7 curriculum. Students on grade level path will likely take Algebra 1 in grade 9.				<b>Grade 7 math</b>

## MIDDLE SCHOOL ENRICHMENT

	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Grade 8	<b>Geometry:</b> Offered by Team teacher to small class of students previously in TAG classes.	<b>Geometry:</b> Offered by Team teacher to small class of students previously in TAG classes.	No <b>Geometry</b> to be offered.		
	<b>Algebra 1:</b> Offered by team teachers, generally 2 sections. Students come from Accelerated level in gr 6 and 7.		<b>Algebra 1:</b> Additional section added this year; TAG students placed in one section with other students from Accelerated Path	<b>Algebra 1:</b> TAG students will continue to be integrated with students from Accelerated path.	<b>Algebra 1</b>
	<b>Grade 8 Math:</b> Majority of grade 8 students. Covers grade 8 curriculum. Students on grade level path will likely take Algebra 1 in grade 9.				<b>Grade 8 Math</b>

## TEACHER CHECKLIST FOR TALENTED AND GIFTED ENRICHMENT

STUDENT: \_\_\_\_\_

D.O.B.: \_\_\_\_\_

Waterford Public Schools

Check the box following each statement which most closely describes your student. Please feel free to give examples for any or all statements to help clarify your responses.

SCHOOL: \_\_\_\_\_

TEACHER: \_\_\_\_\_

GRADE: \_\_\_\_\_

	Seldom/Never	Occasionally	Frequently	Almost Always	Examples
1. Attends school regularly					
2. Works well in groups, cooperates with other children					
3. Works well independently, maintains focus					
4. Completes tasks					
5. Pays close attention to tasks and details					
6. Has a positive attitude toward new activities, gives new activities his/her best effort					
7. Reads at or above grade level					
8. Writes at or above grade level					
9. Possesses math skills at or above grade level					
10. Takes an interest in class discussions and units of study					

Please use this space to describe any outstanding talents, abilities, or interests of the student:

## TEACHER CHECKLIST FOR TALENTED AND GIFTED ENRICHMENT

STUDENT: \_\_\_\_\_

Waterford Public Schools

	Seldom/Never	Occasionally	Frequently	Almost Always	Examples
11. Is a leader-is self-confident, dominant, reliable					
12. Is a nonconformist-does not fear being different					
13. Communicates well-colorful speech, puns, analogies, or direct, clear meaning					
14. Is judgmental or evaluative-has clear opinions-right/wrong, good/bad					
15. Has a great storehouse of information					
16. Has an extensive vocabulary					
17. Grasps new concepts easily-constructs or handles abstraction					
18. Is bored with routine tasks					
19. Likes to organize things, people, or situations					
20. Accepts disorder-dislikes authoritarian approach					
21. Prefers to work independently					
22. Strives for perfection-in written work, language, relationships, or generally					
23. Constantly asks questions about everything and anything, especially "why" and "how"					
24. Generates a large number of responses, possibilities, or related ideas					
25. Has difficulty leaving a topic or project					



## CHARACTERISTICS OF TALENTED AND GIFTED CHILDREN

Child's Name: \_\_\_\_\_

Teacher: \_\_\_\_\_

School: \_\_\_\_\_

Grade: \_\_\_\_\_

Below are descriptions of 20 characteristics of gifted learners. Check the box next to each statement that you believe most closely describes the level to which your child exhibits that characteristic. Please feel free to provide examples for any or all statements to help clarify your responses.

Characteristic	Seldom/ Never	Occasionally	Frequently	Almost Always	Examples
1. My child is very observant, noticing details.					
2. My child displays a mature sense of humor, comprehending/ creating subtle jokes and puns.					
3. My child has a high energy level.					
4. My child is aware of problems others of his/ her age do not see.					
5. My child sets very high standards for self and at times is critical of anything else.					
6. My child discovers imaginative solutions to problems.					
7. My child will give considerable time and attention to activities of his/ her own choosing.					
8. My child asks many questions concerning a variety of subjects.					
9. My child spends time organizing items, for example; collections, books, pictures, personal items.					
10. My child has a strong drive to explore surroundings.					
11. My child asks many questions concerning abstract concepts such as violence, love, and death.					
12. My child has a large vocabulary and uses it appropriately.					
13. My child is very sensitive to injustices concerning self and others.					
14. Other children seek out my child for information, advice, or entertainment.					
15. My child enjoys the challenge of riddles, puzzles, mazes, etc.					
16. My child relates past experiences and knowledge to new situations.					
17. My child has an active imagination.					
18. My child communicates well, clearly and effectively expressing ideas.					
19. My child is able to work independently, needing little direction or supervision.					
20. My child is dependent upon adults to help carry out his/ her intricate ideas.					

## COVER LETTER FOR GRADE 3 PARENTS

Cover letter for grade 3 parents

DATE:

Dear Parents,

Your child has been referred to be included in the Talented and Gifted [TAG] identification process. This process includes the administration of a formal assessment instrument [Otis Lennon Test of School Abilities]. Enclosed with this letter is a consent form for this test and Talented and Gifted Identification process as well as a parent survey. Please complete the survey and return it with the consent form by \_\_\_\_\_ if you are interested in having your child considered for TAG testing.

You will receive written notification as to whether your child meets the eligibility criteria for Talented and Gifted. A PPT will be scheduled if your child meets the criteria.

If you have any questions, please do not hesitate to contact your school's TAG teacher.

Sincerely,

[Name]  
Great Neck School  
[Email]

[Name]  
Oswegatchie School  
[Email]

[Name]  
Quaker Hill School  
[Email]

**GRADE 3 NOTICE AND CONSENT TO CONDUCT EVALUATION**

**Waterford Public Schools**

**NOTICE AND CONSENT TO CONDUCT  
TAG PROGRAM EVALUATIONS**

Date:

Dear Parent(s),

Your child \_\_\_\_\_, \_\_\_\_\_, has been referred for an  
[Student's Name] [DOB]  
evaluation to determine eligibility for Talented and Gifted Identification. As part of the  
evaluation your child will take one test: the Otis Lennon Test of School Abilities (OLSAT).

The test will be administered on the following dates and times:

**OLSAT:** [Date] @ approximately [Time]

Sincerely,		
[Name]	[Name]	[Name]
Great Neck School	Oswegatchie School	Quaker Hill School
[Email]	[Email]	[Email]

**PARENTAL CONSENT**

- I give my consent** for the Waterford Public Schools to utilize the evaluation described above.
- I do not give my consent** for the Waterford Public Schools to utilize the evaluation described above.

Parent/Guardian Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# GRADE 4 LETTER TRIMESTER 1

Date \_\_\_\_\_

Dear Parent/Guardian,

To better serve our students, Waterford Public Schools offers enrichment units to fourth and fifth graders throughout the school year. Students meet with the enrichment teacher for 45 minutes every other day. The units change each trimester and are tied to the following disciplines: Language Arts, Mathematics, and Technology.

Your child has been selected to participate based on his/her current performance in the classroom and interest in the subject matter.

**Math Unit Title:** Algebra: Looking for Patterns and Generalizations

**Unit Overview:** In this Mentoring Mathematical Minds (M3) unit students are encouraged to study patterns and determine how they change, how they can be extended or repeated, and/or how they grow. They then move beyond this to organize the information systematically and analyze it to develop generalizations about mathematical relationships in the patterns. Students will end the unit by creating their own algebra math game.

**Program Dates:** \_\_\_\_\_

**Time:** \_\_\_\_\_

**Letter Days:** \_\_\_\_\_

Participation in the unit is a unique opportunity for your child and is considered optional. Students will miss time from their classroom and are responsible for making up any work that is required from the classroom teacher. Students are expected to maintain a high level of engagement during the unit. They may be exited at any time for failure to maintain acceptable levels of academic performance in their regular classroom including homework completion.

Please fill out the bottom portion and return to your child's teacher by [Date]. In signing permission, you understand the above information.

If you have any questions, please contact your school's enrichment teacher:

[Name]

Great Neck School

[Email]

[Name]

Oswegatchie School

[Email]

[Name]

Quaker Hill School

[Email]

---

Student Name: \_\_\_\_\_

Teacher/Grade: \_\_\_\_\_

Please check the appropriate box and sign below:

I give permission for my child to participate in the enrichment unit

I DO NOT give permission for my child to participate in the enrichment unit

Parent/Guardian Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## GRADE 4 LETTER TRIMESTER 2

Date \_\_\_\_\_

Dear Parent/Guardian,

To better serve our students, Waterford Public Schools offers enrichment units to fourth and fifth graders throughout the school year. Students meet with the enrichment teacher for 45 minutes every other day. The units change each trimester and are tied to the following disciplines: Language Arts, Mathematics, and Technology.

Your child has been selected to participate based on his/her current performance in the classroom and interest in the subject matter.

**Language Arts Unit Title:** Word Sleuths

**Unit Overview:** This highly engaging unit will sharpen students' deductive reasoning skills by incorporating a variety of language based activities. The unit encourages divergent thinking while growing students' imagination and intuitive functioning.

**Program Dates:**

**Time:**

**Letter Days:**

Participation in the unit is a unique opportunity for your child and is considered optional. Students will miss time from their classroom and are responsible for making up any work that is required from the classroom teacher. Students are expected to maintain a high level of engagement during the unit. They may be exited at any time for failure to maintain acceptable levels of academic performance in their regular classroom including homework completion.

Please fill out the bottom portion and return to your child's teacher by [Date]. In signing permission, you understand the above information.

If you have any questions, please contact your school's enrichment teacher:

[Name]

Great Neck School

[Email]

[Name]

Oswegatchie School

[Email]

[Name]

Quaker Hill School

[Email]

---

Student Name: \_\_\_\_\_

Teacher/Grade: \_\_\_\_\_

Please check the appropriate box and sign below:

I give permission for my child to participate in the enrichment unit

I DO NOT give permission for my child to participate in the enrichment unit

Parent/Guardian Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## GRADE 4 LETTER TRIMESTER 3

Date \_\_\_\_\_

Dear Parent/Guardian,

To better serve our students, Waterford Public Schools offers enrichment units to fourth and fifth graders throughout the school year. Students meet with the enrichment teacher for 45 minutes every other day. The units change each trimester and are tied to the following disciplines: Language Arts, Mathematics, and Technology.

Your child has been selected to participate based on his/her current performance in the classroom and interest in the subject matter.

**Technology Unit Title:** Coding

**Unit Overview:** Students create programs with loops, events, and conditionals and write algorithms for everyday tasks. They will translate their names into binary, investigate different problem-solving techniques, and discuss societal impacts of computing. By the end of the curriculum, students create interactive games or stories they can share. Topics have complexity and depth to provide students a rich and novel experience.

**Program Dates:**

**Time:**

**Letter Days:**

Participation in the unit is a unique opportunity for your child and is considered optional. Students will miss time from their classroom and are responsible for making up any work that is required from the classroom teacher. Students are expected to maintain a high level of engagement during the unit. They may be exited at any time for failure to maintain acceptable levels of academic performance in their regular classroom including homework completion.

Please fill out the bottom portion and return to your child's teacher by [Date]. In signing permission, you understand the above information.

If you have any questions, please contact your school's enrichment teacher:

[Name]

Great Neck School

[Email]

[Name]

Oswegatchie School

[Email]

[Name]

Quaker Hill School

[Email]

---

Student Name: \_\_\_\_\_

Teacher/Grade: \_\_\_\_\_

Please check the appropriate box and sign below:

I give permission for my child to participate in the enrichment unit

I DO NOT give permission for my child to participate in the enrichment unit

Parent/Guardian Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# GRADE 5 LETTER TRIMESTER 1

Date  
Dear Parent/Guardian,

To better serve our students, Waterford Public Schools offers enrichment units to fourth and fifth graders throughout the school year. Students meet with the enrichment teacher for 45 minutes every other day. The units change each trimester and are tied to the following disciplines: Language Arts, Mathematics, and Technology.

Your child has been selected to participate based on his/her current performance in the classroom and interest in the subject matter.

**Math Unit Title:** What Are Your Chances?

**Unit Overview:** In this Mentoring Mathematical Minds (M3) unit, students begin their exploration of probability as a measurement of the likelihood of events. The unit is designed to engage students as mathematicians conducting and analyzing experiments that involve the likelihood of events happening. They may have had some prior experiences such as predicting which color tile would be drawn from a bag of assorted color tiles or which number might be rolled on a number cube. This unit extends beyond the actual activities by focusing on the mathematics behind these experiments. Students will have an opportunity to think deeply about the big ideas of probability as they conduct experiments, gather data and analyze results. As true mathematicians do, they will be predicting, discovering patterns, making generalizations and justifying their reasons. They will see how mathematics is used in real-life situations as they create a Carnival of Chance using games constructed with the laws of probability.

**Program Dates:**

**Time:**

**Letter Days:**

Participation in the unit is a unique opportunity for your child and is considered optional. Students will miss time from their classroom and are responsible for making up any work that is required from the classroom teacher. Students are expected to maintain a high level of engagement during the unit. They may be exited at any time for failure to maintain acceptable levels of academic performance in their regular classroom including homework completion.

Please fill out the bottom portion and return to your child's teacher by [Date]. In signing permission, you understand the above information.

If you have any questions, please contact your school's enrichment teacher:

[Name] Great Neck School [Email]	[Name] Oswegatchie School [Email]	[Name] Quaker Hill School [Email]
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Student Name: \_\_\_\_\_

Teacher/Grade: \_\_\_\_\_

Please check the appropriate box and sign below:

- I give permission for my child to participate in the enrichment unit
- I DO NOT give permission for my child to participate in the enrichment unit

Parent/Guardian Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## GRADE 5 LETTER TRIMESTER 2

Date \_\_\_\_\_

Dear Parent/Guardian,

To better serve our students, Waterford Public Schools offers enrichment units to fourth and fifth graders throughout the school year. Students meet with the enrichment teacher for 45 minutes every other day. The units change each trimester and are tied to the following disciplines: Language Arts, Mathematics, and Technology.

Your child has been selected to participate based on his/her current performance in the classroom and interest in the subject matter.

**Language Arts Unit Title:** WordMasters Challenge

**Unit Overview:** Students will learn to explore the depth and complexity of words. Critical thinking skills will grow as students are encouraged to think analytically and metaphorically!

**Program Dates:**

**Time:**

**Letter Days:**

Participation in the unit is a unique opportunity for your child and is considered optional. Students will miss time from their classroom and are responsible for making up any work that is required from the classroom teacher. Students are expected to maintain a high level of engagement during the unit. They may be exited at any time for failure to maintain acceptable levels of academic performance in their regular classroom including homework completion.

Please fill out the bottom portion and return to your child's teacher by [Date]. In signing permission, you understand the above information.

If you have any questions, please contact your school's enrichment teacher:

[Name]  
Great Neck School  
[Email]

[Name]  
Oswegatchie School  
[Email]

[Name]  
Quaker Hill School  
[Email]

---

Student Name: \_\_\_\_\_

Teacher/Grade: \_\_\_\_\_

Please check the appropriate box and sign below:

I give permission for my child to participate in the enrichment unit

I DO NOT give permission for my child to participate in the enrichment unit

Parent/Guardian Signature: \_\_\_\_\_

Date: \_\_\_\_\_



# GRADE 5 LETTER TRIMESTER 3

Date \_\_\_\_\_

Dear Parent/Guardian,

To better serve our students, Waterford Public Schools offers enrichment units to fourth and fifth graders throughout the school year. Students meet with the enrichment teacher for 45 minutes every other day. The units change each trimester and are tied to the following disciplines: Language Arts, Mathematics, and Technology.

Your child has been selected to participate based on his/her current performance in the classroom and interest in the subject matter.

**Technology Unit Title:** Coding

**Unit Overview:** Students create programs with loops, events, and conditionals and write algorithms for everyday tasks. They will translate their names into binary, investigate different problem-solving techniques, and discuss societal impacts of computing. By the end of the curriculum, students create interactive games or stories they can share. Topics have complexity and depth to provide students a rich and novel experience.

**Program Dates:**

**Time:**

**Letter Days:**

Participation in the unit is a unique opportunity for your child and is considered optional. Students will miss time from their classroom and are responsible for making up any work that is required from the classroom teacher. Students are expected to maintain a high level of engagement during the unit. They may be exited at any time for failure to maintain acceptable levels of academic performance in their regular classroom including homework completion.

Please fill out the bottom portion and return to your child's teacher by [Date]. In signing permission, you understand the above information.

If you have any questions, please contact your school's enrichment teacher:

[Name]  
Great Neck School  
[Email]

[Name]  
Oswegatchie School  
[Email]

[Name]  
Quaker Hill School  
[Email]

---

Student Name: \_\_\_\_\_

Teacher/Grade: \_\_\_\_\_

Please check the appropriate box and sign below:

I give permission for my child to participate in the enrichment unit

I DO NOT give permission for my child to participate in the enrichment unit

Parent/Guardian Signature: \_\_\_\_\_

Date: \_\_\_\_\_