

**TOWNSHIP OF OCEAN SCHOOL
DISTRICT
GIFTED AND TALENTED PROJECTS
AND ACTIVITIES LIST**

Grades 3-8

**Revised
July 2009**

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THIRD GRADE POSSIBLE UNITS AND ACTIVITIES

- **ONE-HOUR MYSTERIES:** One-hour mysteries are “who done it”? crime scene mysteries, in which students get involved in all aspects of crime solution. This includes initially pinning down the facts of the crime, determining motives, comparing statements, sustaining alibis, and analyzing the gathered information.
 - **The Coaster Caper (A One-Hour Mystery):** In this mystery, the students will solve matrix logic puzzles to determine clues that are important in solving crimes. The Coaster Caper presents a crime at an amusement park. Students will examine motives, determine the validity of alibis, and examine physical evidence to find the person who sabotaged the roller coaster. *NJCCCS: 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3*
- **ADVERTISING YOURSELF:** During the course of this mini-unit, the students will create products that represent their personalities and will advertise and create commercial for their products.

Specifically students will understand the following:

- Everyone is unique. Each person has characteristics that make him or her special
- Everyone has a talent for something. At times, those talents are hidden deep inside, known only to that person. Sometimes it is difficult to identify our own talents.
- It is important to maintain one’s own individuality and not be easily influenced by peer pressure.

NJCCCS: 3.2.3.A.1;3.2.3.A.5 ;3.2.3.A.6; 3.2.3.A.8; 3.2.3.A.11;

3.2.3.A.13; 3.2.3.B.4; 3.2.3.D.1; 3.2.3.D.4;3.3.3.A.2; 3.3.3.C.3;

3.3.3.D.2; 3.3.3.D.3.

- **OCEAN ANIMAL RESEARCH PROJECT:** The goal during this project is to produce an illustrated book about an ocean animal of choice to share with younger students. The book must in some way demonstrate factual information about the selected animal. It can, however, include some ideas that the student has created to make the story interesting. For example, the student may create a story that shows how an animal escapes danger by having it go on a search for food. The student will have to choose a very specific animal, like the fiddler crab. After the students have created and illustrated their books, they will share them with a younger class. *NJCCCS: 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4; 3.1.4.E.1;*

3.1.4.E.2 ; 3.1.4.F.1 ; 3.1.4.F.2 ; 3.1.4.F.4 ; 3.1.4.G.2 ; 3.1.4.G.3 ; 3.1.4.G.4 ;
3.1.4.G.6 ; 3.1.4.G.13 ; 3.1.4.H.1 ; 3.1.4.H.3;3.2.3.A.1 ; 3.2.3.A.5 ; 3.2.3.A.6 ;
3.2.3.A.8 ; 3.2.3.A.11; 3.2.3.A.13; 3.2.3.B.4; 3.2.3.D.1 ; 3.2.3.D.4;3.3.4.A.2; 3.3.4.B.4;
3.3.4.B.5; 3.3.4.B.6; 3.3.4.D.1; 3.3.4.D.2

- **WHOSE CLUES? AND STORIES WITH HOLES WORKSHOP:** These workshops originate from two books that noteworthy author, Nathan Levy has written. These books feature quiz- and riddle-like formats that promote cooperative learning through deductive reasoning and critical thinking. **NJCCCS:** 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3;4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2,5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4
 - **PRIMARY LOGIC AND REASONING WORKSHOP:** These workshops are mini-lessons from a series of books published by *Dandy Lion Publications*. This series introduces students to the basic elements of logic through examples and guided practice. Skills that are developed during these lessons include: finding relationships, solving analogies, logical thinking, deductive reasoning, and organizing information. **NJCCCS:** 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3;4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2,5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4
 - **LEARNING CENTERS:** These learning centers provide hands-on experiences that promote cooperative learning through finding relationships, organizing information, critical and divergent thinking, and deductive and spatial reasoning.
 - **Centers:**
 - Happy Cubes*
 - Noodlers*
 - Logic Links*
 - Brick-by-Brick*
 - Block-by-Block*
 - Square-by-Square*
 - Rush Hour*
 - Sudoku*
- NJCCCS:** 9.2.A.1.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3;4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2,5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4

- **LEGO EDUCATION WE-DO ROBOTICS:** The Lego® Education WeDo™ Robotics Activity Pack allows students to explore four different themes: Amazing Mechanisms, Wild Animals, Play Soccer, and Adventure Stories-while learning a broad range of curriculum standards. Students will work with simple machines, program models they design and create, measure time and distance, write, and much more! **NJCCCS:** 3.2.3.A.1;3.2.3.A.5 ;3.2.3.A.6; 3.2.3.A.8; 3.2.3.A.11; 3.2.3.A.13; 3.2.3.B.4; 3.2.3.D.1;3.2.3.D.4; 3.3.3.A.2; 3.3.3.C.3; 3.3.3.D.2; 3.3.3.D.3; 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4, 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.B.2; 9.2.4.B.3; 9.2.4.C.5

Project lists may be modified or deviated from according to the specific needs of the students pending supervisor approval.

Revised July 2009

FOURTH GRADE POSSIBLE UNITS AND ACTIVITIES

- **ONE-HOUR MYSTERIES:** One-hour mysteries are “who done it”? crime scene mysteries, in which students get involved in all aspects of crime solution. This includes initially pinning down the facts of the crime, determining motives, comparing statements, sustaining alibis, and analyzing the gathered information.
 - **A Mystery at the Mall (a one-hour mystery):** In this mystery, the students solve matrix logic puzzles to determine clues that are important in solving crimes. In addition, they will review the statements made by a variety of witnesses who have claimed to have seen the culprit at the mall. Only six of the fourteen witnesses are reliable; that is, their statements match up with the evidence obtained from the solution of the logic puzzles. The students will determine which statements are valid, and, therefore, which suspect is the culprit.
 - **The Case of Santa’s Blackmail (a one-hour mystery):** In this mystery, the students solve matrix logic puzzles to determine clues that are important in solving crimes. The mystery takes students to the North Pole to find out which disgruntled employee is threatening to destroy Christmas. In addition, the students will judge motives, consider alibis, and conduct a forensic lab experiment to find the culprit.

NJCCCS: 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.B.2; 9.2.4.B.3

- **FOLKTALES: STORYTELLING ADVENTURE:** In this simulation, the students “travel” to various countries around the world, listening to folk tales on tape and reading folk tales found in books. As the students are exposed to these folk tales, they will become familiar with themes and characteristics of folk tales that are similar regardless of the folk tale’s origin. Eventually, the students will write their own folk tales, and they will share a traditional folk tale orally with others.

Specifically students will participate in the following ways:

- Knowledge:
 1. The primary components of folk tales
 2. Oral storytelling techniques
 3. The difference between folk tales and others types of literature
 4. The similarities of the themes and the characteristics of folk tales no matter where the tale originates

5. The locations of various countries around the world

▪ Skills:

1. Applying knowledge gained about themes and characteristics of folk tales when writing an original folk tale
2. Choosing an appropriate folk tale to orate
3. Telling a story orally while keeping the interest of the audience
4. Using the storytelling techniques of projection, pace, and dramatic flair
5. Making the use of listening, speaking, reading, and writing during the course of the simulation

▪ Feelings and Attitudes:

1. Understand themes and components of folk tales that are universal
2. A feeling of pride associated with developing an original folk tale
3. Appreciation that cultures of the world are really more similar than they are different as seen in the similarity of folk tales around the world
4. A feeling of accomplishment to tell a story orally in front of a group of people
5. The responsibility to learn not only about one's own cultural heritage, but also about the cultural heritage of other people around the world.

NJCCCS: 3.2.3.A.1; 3.2.3.A.5; 3.2.3.A.6; 3.2.3.A.8; 3.2.3.A.11; 3.2.3.A.13; 3.2.3.B.4; 3.2.3.D.1; 3.2.3.D.4; 3.3.4.A.2; 3.3.4.B.4; 3.3.4.B.5; 3.3.4.B.6; 3.3.4.D.1; 3.3.4.D.2; 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2.

- **MATH MERCHANTS:** Math Merchants is a role-play in which students learn real-life money management skills by buying and selling goods and services in a classroom city they create. As a class, students take ownership of their city by naming their city and determining the types of businesses they will build there. Using their writing skills, individuals apply for a job at the store they would like to manage. Students are hired to work with a partner to build a storefront, determine the goods they will sell, and establish prices and discounts. Store managers create a catalog of goods and office managers prepare the items they will use to perform their services. Once the businesses are created,

students take turns being buyers and sellers. Salaries are earned through work in the stores, as well as from class work. Sellers track and calculate daily sales, apply taxes, calculate discounts, and make change. Buyers make purchasing decisions, use cash, check, and debit cards to make purchases, and track their daily spending. Buyers are also subject to “situation cards” that add unexpected events to their shopping experience. Daily challenges are intended to extend and enrich the knowledge gained in the daily lessons. Options for culminating activities include presentation of financial statements, personal reflections, and inviting guests to shop in the classroom city.

Specifically, the students will gain and experience the following:

- Knowledge:
 1. Connecting math to real-world applications
 2. Understanding and applying decimals and percents
 3. Understanding how checks and ATM cards are used in our monetary system
 4. Communicating mathematically orally and in writing
- Skills:
 1. Adding and subtracting decimals
 2. Counting money
 3. Making correct change
 4. Writing checks and maintaining a register
 5. Keeping financial records
 6. Calculating percentages
- Attitudes:
 1. Building a positive attitude toward math
 2. Coping with the consequences of decision-making
 3. Recognizing how to keep track of money to the penny
 4. Realizing the value of working with others toward a common goal

NJCCCS: 3.1.4.E.1; 3.1.4.E.2 ; 3.1.4.F.1 ; 3.1.4.F.2 ; 3.1.4.F.4 ; 3.1.4.G.2 ; 3.1.4.G.3 ; 3.1.4.G.4; 3.1.4.G.6 ; 3.1.4.G.13 ; 3.1.4.H.1 ; 3.1.4.H.3;3.2.3.A.1; 3.2.3.A.5 ; 3.2.3.A.6 ; 3.2.3.A.8 ; 3.2.3.A.11; 3.2.3.A.13; 3.2.3.B.4; 3.2.3.D.1 ; 3.2.3.D.4;3.3.4.A.2; 3.3.4.B.4; 3.3.4.B.5; 3.3.4.B.6; 3.3.4.D.1; 3.3.4.D.2; 9.2.4.A.1; ; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3

- **GAME FACTORY:** Game Factory is a classroom simulation designed for Grades 3-5. This unit simulates math skills, encouraging students to use their knowledge of basic addition, subtraction, multiplication, division, and fractions to determine probabilities. In this simulation, students are assigned to save the reputation of Goodwin's Game Factory. After the death of founder, Gary Goodwin, the game factory is inherited by his partner, Cheatum Swindle. Cheatum secretly hates games, and is only out to make as much money as he can in the shortest amount of time possible. Goodwin's son, Gregory, has figured out that Cheatum doesn't take the time to test the fairness of games, and Gregory is afraid that the company could go under when the public finds out the chances of winning some of the games are weighted. Student pairs are asked to help Gregory check the games for fairness and modify them when necessary to ensure an equal chance for all players. Student investigators explore probably outcomes using spinners, dice, coins, cards, and other hands-on objects that generate an element of chance. The selection of the games explored each day is based on chance according a factory map. There are many different paths the students may follow through the factory. After working through a game using a particular manipulative, game investigators move onto their next factory design room based on the probability they learned about in the game they are currently investigating. The unit culminates with groups testing their learning as they develop their own "fair" game to share with the rest of the class.

Specifically, the students will gain and experience the following:

- Knowledge:
 1. Develop an understanding of probability as it applies to games
 2. Connect math to real-world applications
 3. Choose problem-solving strategies
 4. Understand relationships in graphs
- Skills:
 1. Predict outcomes of games
 2. Solve mathematical problems
 3. Collect data
 4. Communicate mathematically
 5. Tally and graph outcomes
 6. Organize mathematical information
 7. Develop number sense
- Attitudes:
 1. Develop a positive attitude toward math

2. Develop a sense of working cooperatively with others toward a common goal of saving the game factory and creating a “fair” game
3. Develop an appreciation for mathematical connections across curriculum areas
4. Accept the consequences of decision-making in real-life contexts

NJCCCS: 3.1.4.E.1; 3.1.4.E.2; 3.1.4.F.1; 3.1.4.F.2; 3.1.4.F.4; 3.1.4.G.2; 3.1.4.G.3; 3.1.4.G.4; 3.1.4.G.6; 3.1.4.G.13; 3.1.4.H.1; 3.1.4.H.3; 3.2.3.A.1; 3.2.3.A.5; 3.2.3.A.6; 3.2.3.A.8; 3.2.3.A.11; 3.2.3.A.13; 3.2.3.B.4; 3.2.3.D.1; 3.2.3.D.4; 3.3.4.A.2; 3.3.4.B.4; 3.3.4.B.5; 3.3.4.B.6; 3.3.4.D.1; 3.3.4.D.2; 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4.

- **GREAT EXPLORERS RESEARCH PROJECT:** The goal during this project is to write a monologue (a speech given alone), pretending to be an explorer. The students will simulate just having returned from an extensive voyage, and have been invited to speak before a large crowd of merchants who are interested in donating money for their next trip. Students have to convince the merchants that they have a worthy cause and that they would be wise to invest in their next expedition. After the students write their speeches, they will present them to their 4th grade classes. Students may use costumes (gathered from things they have at home), and can include maps, charts, and hand-drawn pictures of things they may have seen in their travels.

NJCCCS: 3.1.4.E.1; 3.1.4.E.2; 3.1.4.F.1; 3.1.4.F.2; 3.1.4.F.4; 3.1.4.G.2; 3.1.4.G.3; 3.1.4.G.4; 3.1.4.G.6; 3.1.4.G.13; 3.1.4.H.1; 3.1.4.H.3; 3.2.3.A.1; 3.2.3.A.5; 3.2.3.A.6; 3.2.3.A.8; 3.2.3.A.11; 3.2.3.A.13; 3.2.3.B.4; 3.2.3.D.1; 3.2.3.D.4; 3.3.4.A.2; 3.3.4.B.4; 3.3.4.B.5; 3.3.4.B.6; 3.3.4.D.1; 3.3.4.D.2.

- **WHOSE CLUES? AND STORIES WITH HOLES WORKSHOP:** These workshops originate from two books that noteworthy author, Nathan Levy has written. These books feature quiz- and riddle-like formats that promote cooperative learning through deductive reasoning and critical thinking. **NJCCCS:** 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3; 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2; 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4

- **PRIMARY LOGIC AND REASONING WORKSHOP:** These workshops are mini-lessons from a series of books published by *Dandy Lion Publications*. This series introduces students to the basic elements of logic through examples and guided practice. Skills that are developed during these lessons include: finding relationships, solving analogies, logical thinking, deductive reasoning, and organizing information. **NJCCCS:** 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3; 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4

- **SELF-SELECTED RESEARCH PROJECT:** Students will be taking part in an exciting research project that allows them to learn about something they are interested in. Students will be encouraged to select a topic of interest. This type of independent study allows students to think deeply about a topic to research in an organized and structured way that helps to nurture their thinking. They will learn to ask questions, organize their topics, search for information from many resources, and share their findings with their classmates and possibly other audiences.
 - Nine Step Process of the Independent Study:
 1. Introduction
 2. Select Topic
 3. Organize Topic
 4. Ask Questions
 5. Use Study Method
 6. Collect information
 7. Develop product and/or performance
 8. Present
 9. Evaluate

Specifically, the Self-Selected Research Project will:

- Teach an independent process for creating new knowledge
- Provide opportunities for authentic investigations of real-world problems that are beyond the traditional classroom culture
- Promote a deeper and more complex thinking
- Advance knowledge in selected areas of interest
- Support self-paced learning
- Increase opportunities for working with practicing professionals who share students' interests
- Stimulate the development of professional products
- Encourage students' self-reflections and self-evaluations
- Differentiate instruction based on individual interests, learning preferences, and content complexity
- Leads to lifelong learning and responsible involvement

NJCCCS: 3.1.4.E.1.E.2; 3.1.4.F.1; 3.1.4.F.2; 3.1.4.F.4; 3.1.4.G.2; 3.1.4.G.4.6;
3.1.4.G.13; 3.1.4.H.1; 3.1.4.H.3; 3.2.3.A.1; 3.2.3.A.5; 3.2.3.A.6; 3.2.3.A.8;
3.2.3.A.11; 3.2.3.A.13; 3.2.3.B; 3.2.3.D.1; 3.2.3.D.4; 3.3.4.A.2; 3.3.4.B.4;
3.3.4.B.5; 3.3.4.B.6; 3.3.4.D.1; 5.1.4.A.1; 5.1.4.A.4, 5.1.4.B.4; 9.2.4.A.1;
9.2.4.A.4; 9.2.4.B.2; 9.2.4.B.3

- **LEARNING CENTERS:** These learning centers provide hands-on experiences that promote cooperative learning through finding relationships, organizing information, critical and divergent thinking, and deductive and spatial reasoning.

- **Centers:**

Happy Cubes
Noodlers
Logic Links
Brick-by-Brick
Block-by-Block
Square-by-Square
Rush Hour
Sudoku

NJCCCS: 9.2.A.1.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3; 4.5.A.1;
4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4

- **MATH OLYMPIAD COMPETITION:** The format for this math contest is similar to that of the Continental Math League Contests. Students will compete in five events during the year in the G & T classroom. The contests consist of high level, non-routine math problems. Student will work alone, but will combine their efforts for a team score.

NJCCCS: 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4;
5.1.4.B.4, 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.B.2; 9.2.4.B.3; 9.2.4.C.5

Project lists may be modified or deviated from according to the specific needs of the students pending supervisor approval.

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FIFTH GRADE POSSIBLE UNITS AND ACTIVITIES

- **ONE-HOUR MYSTERIES:** One-hour mysteries are “who done it”? crime scene mysteries, in which students get involved in all aspects of crime solution. This includes initially pinning down the facts of the crime, determining motives, comparing statements, sustaining alibis, and analyzing the gathered information.

NJCCCS: 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.B.2; 9.2.4.B.3

- **WHOSE CLUES? AND STORIES WITH HOLES WORKSHOP:** These workshops originate from two books that noteworthy author, Nathan Levy has written. These books feature quiz- and riddle-like formats that promote cooperative learning through deductive reasoning and critical thinking.

NJCCCS: 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3; 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4

- **LOGIC AND REASONING WORKSHOP:** These workshops are mini-lessons from a series of books published by *Dandy Lion Publications*. This series introduces students to the basic elements of logic through examples and guided practice. Skills that are developed during these lessons include: finding relationships, solving analogies, logical thinking, deductive reasoning, and organizing information.

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- **LEARNING CENTERS:** These learning centers provide hands-on experiences that promote cooperative learning through finding relationships, organizing information, critical and divergent thinking, and deductive and spatial reasoning.

- **Centers:**

- *Square Up*
- *Clip Clue Puzzles*
- *Sudoku*
- *Great Origami*
- *Logic Links*
- *Word Winks*
- *Snap Circuit Pro*

NJCCCS: 9.2.A.1.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3; 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4

- **INTERNET CRUISES:** Students become members of six advance teams each sent by a cruise line to explore a different travel destination. As they prepare for travel, sail to their destinations, and create promotional brochures, players practice essential Internet skills such as doing research, downloading information, and documenting Internet sources. After keeping a scrapbook throughout the voyage and designing a brochure touting their destination, students celebrate their safe return with an end-of-cruise captain's dinner where they share their findings. This program is a vehicle for history, geography, and language arts, while providing the opportunity for students to sharpen their Internet skills with regards to technology.

NJCCCS: 3.1.6.E.1; 3.1.6.E.2; 3.1.6.E.3; 3.1.6.E.4; 3.1.6.E.6; 3.1.6.F.2; 3.1.6.F.5; 3.1.6.G.4; 3.1.6.G.9; 3.1.6.H.6; 3.2.6.A.2; 3.2.6.A.7; 3.2.6.A.8; 3.2.6.A.10; 3.2.6.A.11; 3.2.6.A.13; 3.2.6.D.2; 3.2.6.D.6; 3.2.6.D.7; 3.2.6.D.9 3.3.6.A.2; 3.3.6.A.3; 3.3.6.A.5; 3.3.6.B.4; 3.3.6.B.6; 3.3.6.C.3 5.1.8.A.1; 5.1.8.A.4; 5.1.8.B.1; 9.2.8.A.1; 9.2.8.A.2; 9.2.8.A.5; 9.2.8.B.2; 9.2.8.C.1; 9.2.8.C.2; 9.2.8.C.3; 9.2.8.C.4; 9.2.8.C.6

- **HOUSE DESIGN:** From mansions to townhouses, architecture is in the works! Students build an understanding of the problems and pleasures of designing a house by learning the different types and necessary elements of house design, the correlation between income and mortgage eligibility, and the costs of house construction and home furnishings. Some the activities include evaluating the pros and cons of building single-family homes, calculating the number of square feet in a given area, and designing and drawing specific floor plans. Students apply their math skills, cooperative skills, and creativity to a real-life situation designing and furnishing a house within a budget.

NJCCCS: 3.1.6.E.1; 3.1.6.E.2; 3.1.6.E.3; 3.1.6.E.4; 3.1.6.E.6; 3.1.6.F.2; 3.1.6.F.5; 3.1.6.G.4; 3.1.6.G.9; 3.1.6.H.6 3.2.6.A.2; 3.2.6.A.7; 3.2.6.A.8; 3.2.6.A.10; 3.2.6.A.11; 3.2.6.A.13; 3.2.6.D.2; 3.2.6.D.6; 3.2.6.D.7; 3.2.6.D.9 3.3.6.A.2; 3.3.6.A.3; 3.3.6.A.5; 3.3.6.B.4; 3.3.6.B.6; 3.3.6.C.3 9.2.8.A.1; 9.2.8.A.2; 9.2.8.A.5; 9.2.8.B.2; 9.2.8.C.1; 9.2.8.C.2; 9.2.8.C.3; 9.2.8.C.4 9.2.8.C.6

- **A DAY IN THE LIFE OF A FIFTH GRADER:** This will be an ongoing documentary production during the school year. The students will be creating storyboards for planning, filming, directing, and editing a video depicting what it is like to be in the 5th Grade School Within a School at the Township of Ocean Intermediate School. The completed project will be viewed by the incoming 5th Graders at their August orientation.

NJCCCS: 3.1.6.E.1; 3.1.6.E.2; 3.1.6.E.3; 3.1.6.E.4; 3.1.6.E.6; 3.1.6.F.2;
 3.1.6.F.5; 3.1.6.G.4; 3.1.6.G.9; 3.1.6.H.6, 3.2.6.A.2; 3.2.6.A.7; 3.2.6.A.8;
 3.2.6.A.10; 3.2.6.A.11; 3.2.6.A.13; 3.2.6.D.2; 3.2.6.D.6; 3.2.6.D.7; 3.2.6.D.9
 3.3.6.A.2; 3.3.6.A.3; 3.3.6.A.5; 3.3.6.B.4; 3.3.6.B.6; 3.3.6.C.3 9.2.8.A.1;
 9.2.8.A.2; 9.2.8.A.5; 9.2.8.B.2; 9.2.8.C.1 ; 9.2.8.C.2 ; 9.2.8.C.3 ; 9.2.8.C.4 9.2.8.C.6

- **MATH OLYMPIAD COMPETITION:** The format for this math contest is similar to that of the Continental Math League Contests. Students will compete in five events during the year in the G & T classroom. The contests consist of high level, non-routine math problems. Student will work alone, but will combine their efforts for a team score.

NJCCCS: 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4;
 5.1.4.B.4, 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.B.2; 9.2.4.B.3; 9.2.4.C.5

- **IF I WERE IN CHARGE OF THE WORLD:** This activity will be conducted in order for students to introduce themselves to the teacher, as well as to the rest of their new classmates. The poem, *If I Were in Charge of the World*, by Judith Viorst will be shared with the students. They will then be given the task of creating a speech to be shared with the class expressing how the world would change if they were in charge. This activity will serve the dual purpose of being an ice breaker for the students, as well as serving as a way to introduce the use of *iMovie*, which will be utilized to create the production, *A Day in the Life of a Fifth Grader*.

NJCCCS: 3.1.6.E.3; 3.1.6.E.4; 3.1.6.E.6; 3.1.6.F.2; 3.1.6.F.5; 3.1.6.G.4;
 3.1.6.G.9; 3.1.6.H.6, 3.2.6.A.2; 3.2.6.A.7; 3.2.6.A.8; 3.2.6.A.10; 3.2.6.A.11;
 3.2.6.A.13; 3.2.6.D.2; 3.2.6.D.6; 3.2.6.D.7; 3.2.6.D.9, 3.3.6.A.2; 3.3.6.A.3;
 3.3.6.A.5; 3.3.6.B.4; 3.3.6.B.6; 3.3.6.C.3, 5.1.8.A.1; 5.1.8.A.4; 5.1.8.B.1

Project lists may be modified or deviated from according to the specific needs of the students pending supervisor approval.

Revised July 2009

SIXTH GRADE POSSIBLE UNITS AND ACTIVITIES

- **ONE-HOUR MYSTERIES:** One-hour mysteries are “who done it”? crime scene mysteries, in which students get involved in all aspects of crime solution. This includes initially pinning down the facts of the crime, determining motives, comparing statements, sustaining alibis, and analyzing the gathered information.

NJCCCS: 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.B.2; 9.2.4.B.3

- **WHOSE CLUES? AND STORIES WITH HOLES WORKSHOP:** These workshops originate from two books that noteworthy author, Nathan Levy has written. These books feature quiz- and riddle-like formats that promote cooperative learning through deductive reasoning and critical thinking.

NJCCCS: 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3; 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4

- **LOGIC AND REASONING WORKSHOP:** These workshops are mini-lessons from a series of books published by *Dandy Lion Publications*. This series introduces students to the basic elements of logic through examples and guided practice. Skills that are developed during these lessons include: finding relationships, solving analogies, logical thinking, deductive reasoning, and organizing information.

NJCCCS: 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3; 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4

- **MATH OLYMPIAD COMPETITION:** The format for this math contest is similar to that of the Continental Math League Contests. Students will compete in five events during the year in the G & T classroom. The contests consist of high level, non-routine math problems. Student will work alone, but will combine their efforts for a team score.

NJCCCS: 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4, 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.B.2; 9.2.4.B.3; 9.2.4.C.5

- **ROLLER COASTER: A SIMULATION SOLVING A SCIENTIFIC MYSTERY WHILE LEARNING ABOUT THE SCIENCE OF MOTION:** This activity transforms students into science sleuths with a simulated amusement park mystery. Students use the discoveries of Galileo, Newton, and more to solve the perplexing problem of Roller Coaster World's rides. Science journals help students strengthen their writing skills while documenting the results of five Design Tests. Finding contextual clues, forming hypotheses, performing experiments, and making conclusions are all part of the fun of figuring out the park's puzzling problems. Multiple unit extension ideas are offered that utilize communication, problem-solving, and drama skills.

NJCCCS: 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.8.A.1; 5.1.8.A.4; 5.1.8.B.1, 9.2.8.A.1 ; 9.2.8.A.2 ; 9.2.8.A.5 ; 9.2.8.B.2 ; 9.2.8.C.1 ; 9.2.8.C.2 ; 9.2.8.C.3 ; 9.2.8.C.4, 9.2.8.C.6

- **THE STUDY OF BRIDGES:** The students will explore bridges throughout the world, types of bridges, the mathematics of bridge building, and how to construct a bridge in cooperative groups. This unit will incorporate elements of a web quest.

NJCCCS: 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.8.A.1; 5.1.8.A.4; 5.1.8.B.1, 9.2.8.A.1 ; 9.2.8.A.2 ; 9.2.8.A.5 ; 9.2.8.B.2 ; 9.2.8.C.1 ; 9.2.8.C.2 ; 9.2.8.C.3 ; 9.2.8.C.4, 9.2.8.C.6

- **LET'S CREATE A GOLF COURSE:** The students will form a golf course design and construction firm and be asked to develop a nine-hole miniature golf courses for the "tween" to early adult age group. Each company will be a three member team will be responsible for the following:

- Company name and logo
- Marketing campaign
- Course Design
- Hole Design
- Accounting

- Consulting
- Model of one hole

Presentations will be made through creating a Powerpoint.

NJCCCS: 3.2.6.A.2; 3.2.6.A.7; 3.2.6.A.8; 3.2.6.A.10; 3.2.6.A.11; 3.2.6.A.13;
3.2.6.D.2; 3.2.6.D.6; 3.2.6.D.7; 3.2.6.D.9, 3.3.6.A.2; 3.3.6.A.3; 3.3.6.A.5;
3.3.6.B.4; 3.3.6.B.6; 3.3.6.C.3, 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2,
5.1.8.A.1; 5.1.8.A.4; 5.1.8.B.1, 9.2.8.A.1 ; 9.2.8.A.2 ; 9.2.8.A.5 ; 9.2.8.B.2 ;
9.2.8.C.1 ; 9.2.8.C.2 ; 9.2.8.C.3 ; 9.2.8.C.4, 9.2.8.C.6

Project lists may be modified or deviated from according to the specific needs of the students pending supervisor approval.

Revised July 2009

SEVENTH GRADE POSSIBLE UNITS AND ACTIVITIES

- **ONE-HOUR MYSTERIES:** One-hour mysteries are “who done it”? crime scene mysteries, in which students get involved in all aspects of crime solution. This includes initially pinning down the facts of the crime, determining motives, comparing statements, sustaining alibis, and analyzing the gathered information.

NJCCCS: 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.B.2; 9.2.4.B.3

- **WHOSE CLUES? AND STORIES WITH HOLES WORKSHOP:** These workshops originate from two books that noteworthy author, Nathan Levy has written. These books feature quiz- and riddle-like formats that promote cooperative learning through deductive reasoning and critical thinking.

NJCCCS: 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3; 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4

- **LOGIC AND REASONING WORKSHOP:** These workshops are mini-lessons from a series of books published by *Dandy Lion Publications*. This series introduces students to the basic elements of logic through examples and guided practice. Skills that are developed during these lessons include: finding relationships, solving analogies, logical thinking, deductive reasoning, and organizing information.

NJCCCS: 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3; 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4

- **BUSINESS:** The students will learn how the American business system works by starting competing companies that make the most successful product-either the finest-tasting popcorn or the best-flying paper airplane. The free enterprise system, the elements of manufacturing, and the methods used by advertisers to encourage consumers to buy are few of the topics covered. Some activities include selecting sites, organizing advertising campaigns, and filling out job applications.

NJCCCS: 3.1.6.E.1; 3.1.6.E.2; 3.1.6.E.3; 3.1.6.E.4; 3.1.6.E.6; 3.1.6.F.2; 3.1.6.F.5; 3.1.6.G.4; 3.1.6.G.9; 3.1.6.H.6; 3.2.6.A.2; 3.2.6.A.7; 3.2.6.A.8; 3.2.6.A.10; 3.2.6.A.11; 3.2.6.A.13; 3.2.6.D.2; 3.2.6.D.6; 3.2.6.D.7; 3.2.6.D.9,

3.3.6.A.2; 3.3.6.A.3; 3.3.6.A.5; 3.3.6.B.4; 3.3.6.B.6; 3.3.6.C.3, 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.8.A.1; 5.1.8.A.4; 5.1.8.B.1 9.2.8.A.1; 9.2.8.A.2; 9.2.8.A.5; 9.2.8.B.2; 9.2.8.C.1; 9.2.8.C.2; 9.2.8.C.3; 9.2.8.C.4, 9.2.8.C.6

- **MATH OLYMPIAD COMPETITION:** The format for this math contest is similar to that of the Continental Math League Contests. Students will compete in five events during the year in the G & T classroom. The contests consist of high level, non-routine math problems. Student will work alone, but will combine their efforts for a team score.

NJCCCS: 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4, 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.B.2; 9.2.4.B.3; 9.2.4.C.5

- **MYSTERY DISEASE:** A Problem Based Learning (PBL) unit is specifically designed for student centered learning of new and meaningful content in a way that forces students to grapple with a complex and changing problem. PBL requires higher level thinking skills in an environment where students work both individually and in collaboration with others. The scenario for this unit takes place in early September. The fair has just ended and school has begun. What would normally be a time of getting back to routine becomes a time of panic. A disease begins sweeping through the small community. Students have to help uncover the disease and stop its spread.

NJCCCS: 9.2.8.A.1; 9.2.8.A.2; 9.2.8.A.5; 9.2.8.B.2; 9.2.8.C.1; 9.2.8.C.2; 9.2.8.C.3; 9.2.8.C.4, 9.2.8.C.6; 5.1.8.A.1; 5.1.8.A.4; 5.1.8.B.1, 3.3.6.A.2; 3.3.6.A.3; 3.3.6.A.5; 3.3.6.B.4; 3.3.6.B.6; 3.3.6.C.3, 3.2.6.A.2; 3.2.6.A.7; 3.2.6.A.8; 3.2.6.A.10; 3.2.6.A.11; 3.2.6.A.13; 3.2.6.D.2; 3.2.6.D.6; 3.2.6.D.7; 3.2.6.D.9, 3.1.6.E.1; 3.1.6.E.2; 3.1.6.E.3; 3.1.6.E.4; 3.1.6.E.6; 3.1.6.F.2; 3.1.6.F.5; 3.1.6.G.4; 3.1.6. G.9; 3.1.6.H.6

- **ROBOTICS:** Robotics encourages kids to think creatively, analyze situations, and apply critical thinking and problem solving skill in solving real-world problems. Teamwork and cooperation are cornerstones of the robotics projects. Technology and kinesthetic opportunities are the main focal points of building robots utilizing the Lego® products. Students learn it is acceptable to make errors, especially if it leads them to a solution.

NJCCCS: 3.1.6.E.1; 3.1.6.E.2; 3.1.6.E.3; 3.1.6.E.4; 3.1.6.E.6; 3.1.6.F.2; 3.1.6.F.5; 3.1.6.G.4; 3.1.6.G.9; 3.1.6.H.6, 3.2.6.A.2; 3.2.6.A.7; 3.2.6.A.8; 3.2.6.A.10;

3.2.6.A.11; 3.2.6.A.13; 3.2.6.D.2; 3.2.6.D.6; 3.2.6.D.7; 3.2.6.D.9, 3.3.6.A.2;
3.3.6.A.3; 3.3.6.A.5; 3.3.6.B.4; 3.3.6.B.6; 3.3.6.C.3, 4.5.A.1; 4.5.A.2; 4.5.A.3;
4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.8.A.1; 5.1.8.A.4; 5.1.8.B.1 9.2.8.A.1; 9.2.8.A.2;
9.2.8.A.5; 9.2.8.B.2; 9.2.8.C.1; 9.2.8.C.2; 9.2.8.C.3; 9.2.8.C.4, 9.2.8.C.6

Project lists may be modified or deviated from according to the specific needs of the students pending supervisor approval.

Revised July 2009

EIGHTH GRADE POSSIBLE UNITS AND ACTIVITIES

- **ONE-HOUR MYSTERIES:** One-hour mysteries are “who done it”? crime scene mysteries, in which students get involved in all aspects of crime solution. This includes initially pinning down the facts of the crime, determining motives, comparing statements, sustaining alibis, and analyzing the gathered information.

NJCCCS: 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.B.2; 9.2.4.B.3

- **WHOSE CLUES? AND STORIES WITH HOLES WORKSHOP:** These workshops originate from two books that noteworthy author, Nathan Levy has written. These books feature quiz- and riddle-like formats that promote cooperative learning through deductive reasoning and critical thinking.

NJCCCS: 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3; 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4

- **LOGIC AND REASONING WORKSHOP:** These workshops are mini-lessons from a series of books published by *Dandy Lion Publications*. This series introduces students to the basic elements of logic through examples and guided practice. Skills that are developed during these lessons include: finding relationships, solving analogies, logical thinking, deductive reasoning, and organizing information.

NJCCCS: 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.b.2; 9.2.4.B.3; 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4

- **MATH OLYMPIAD COMPETITION:** The format for this math contest is similar to that of the Continental Math League Contests. Students will compete in five events during the year in the G & T classroom. The contests consist of high level, non-routine math problems. Student will work alone, but will combine their efforts for a team score.

NJCCCS: 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.4.A.1; 5.1.4.A.4; 5.1.4.B.4, 9.2.4.A.1; 9.2.4.A.2; 9.2.4.A.4; 9.2.4.B.2; 9.2.4.B.3; 9.2.4.C.5

- **FUTURE CITY:** The competition, Future City, requires participating students to use their creativity, ingenuity, and, above all, their knowledge of science, technology, engineering, and mathematics to perform 6 specific projects-the most exciting of which is to construct a scale model of a city as it might exist at least 100 years from now. Not pie-in-the-sky fairy tale land, but a “real” future city that uses student-envisioned scientific and technological breakthroughs to meet its citizens’ needs. This integrated, multi-disciplinary unit is the main focus of the eighth-grade Gifted and Talented Program. A local competition will be held in early June for the two semester teams to present their work. For more information, you can visit: www.futurecity.org

NJCCCS: 3.1.6.E.1; 3.1.6.E.2; 3.1.6.E.3; 3.1.6.E.4; 3.1.6.E.6; 3.1.6.F.2; 3.1.6.F.5; 3.1.6.G.4; 3.1.6.G.9; 3.1.6.H.6, 3.2.6.A.2; 3.2.6.A.7; 3.2.6.A.8; 3.2.6.A.10; 3.2.6.A.11; 3.2.6.A.13; 3.2.6.D.2; 3.2.6.D.6; 3.2.6.D.7; 3.2.6.D.9, 3.3.6.A.2; 3.3.6.A.3; 3.3.6.A.5; 3.3.6.B.4; 3.3.6.B.6; 3.3.6.C.3, 4.5.A.1; 4.5.A.2; 4.5.A.3; 4.5.A.5; 4.5.C.3; 4.5.D.2, 5.1.8.A.1; 5.1.8.A.4; 5.1.8.B.1 9.2.8.A.1; 9.2.8.A.2; 9.2.8.A.5; 9.2.8.B.2; 9.2.8.C.1; 9.2.8.C.2; 9.2.8.C.3; 9.2.8.C.4, 9.2.8.C.6

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