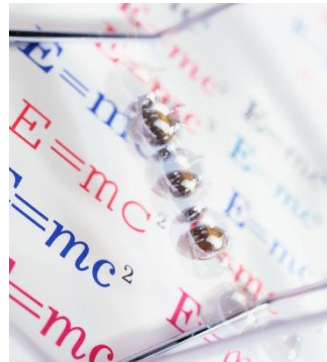




**Chesterfield Township
Elementary School**

*Gifted & Talented/
Enrichment
Curriculum*



Grades K - 6



Revised 2013

Table of Contents

Rationale and Philosophy	3
Units of Study by Grade Level	
Kindergarten	5
Grade 1	15
Grade 2	25
Grade 3	35
Grade 4	45
Grade 5	54
Grade 6	64
Differentiation Guide	72
Curriculum Connections	75
Pacing Guide	78

Rationale and Philosophy

Note on Curriculum Format

The Chesterfield School District has adopted the Understanding by Design (UbD) format to organize the Curriculum Standards. Overall Unit topics are thus seen as guiding principles, specifying the “Big Idea” which each unit addresses. These overall learning goals are included the sections labeled Stage 1 below. Next, in stage 2, are the various ways that the mastery of guiding ideas are assessed. Finally, in the sections labeled stage 3, teachers can then choose from a variety of lessons or formats which address the particular needs and interests of the class, as they address the learning goals.

Standards

While the NJ state department of education has not specified any set curriculum guidelines for Gifted and Talented education, the Chesterfield Township School District had incorporated various State Curriculum into our framework. Significantly, the state 21st Century Life and Careers Standards have been integrated, as well as standards from the Common Core Literacy and Math, and other subject area standards. These include standards in Health/Physical Education, Art, Music, Social Studies, and Science.

Rationale and Philosophy

The Chesterfield Elementary School Gifted & Talented / Enrichment program is challenging and meaningful to our students. The program supports a learning environment that encourages students to reach their highest potential. The goal of the program is to allow students to engage their creativity, strengths, and abilities to the greatest extent possible. We focus on promoting high-level thinking and developing students who are well-rounded, 21st century learners. The units of study are project-based and thematic, and they allow for discovery, open-endedness and freedom of choice. The students must use complex skills, such as problem-solving, collaboration/teamwork, communication and critical thinking. Students use current technology to conduct research and complete tasks. The program uses a wide range of instructional strategies, supporting resources, and grouping options throughout the year. The program allows for the

identification of unique patterns of strengths, abilities, and interests, which are used to further focus instruction and build on existing talents. This focus on individualized learning profile is integrated into the first unit for each grade and identified strengths are then used to guide further instruction.

Inclusion Focus: Enrichment

In whole class activities, the G&T curriculum promotes and facilitates constructivist, participatory, self-inquiry, and cooperative learning experiences. Many units encompass cross-curricular activities. The curriculum is designed to include differentiation, which enables the teachers to easily adapt their teaching methods to parallel gifted students' needs. Often this is connected with ongoing work in the general education classroom. The G&T content also gives students choices about topics to explore in greater depth and the process creates tasks based on individual learning styles. Both the classroom teacher and the Gifted and Talented teacher work collaboratively to provide instruction.

Pull-Out Focus: Project-based units of study

When meeting in small groups, curricular units of study emphasize creative thinking, authentic, real-life problem solving, communication skills both oral and written, higher-order/analytical thinking skills, and cooperative learning. Students' strengths, interests, and talents guide the selection of the units covered. All units include self-directed learning activities, instructional materials and curricula that are challenging to each student. Each unit also provides a variety of individual and group oriented projects that are designed to promote hands-on research and investigative decision making.

**Kindergarten
Unit 1:
Getting to Know ME
3 weeks**

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What do I enjoy doing in my free time?
- How am I NOW?
- What are things that I love?
- What kinds of things interest me?
- What are things that I do not like to do?
- What am I good at?
- Who do I like to spend time with and where?
- What do I want to be when I grow up?
- What are my short-term goals for this school year?
- What are my long-term goals for my academic future?

Enduring Understandings:

- Each person is unique and has different interests and goals for themselves.
- To be successful in life, we must have a vision of what we would like to achieve.
- Each person has various abilities and strengths and it is okay for people to be strong in one area but not in another.
- Understand different career descriptions that may or may not interest students.
- Various individuals shape the way we think and act.

Objectives - Students will be able to:

- Describe what they enjoy doing.
- Identify their particular interests and talents by analyzing results of an interest inventory
- Describe the characteristics of a chosen occupation
- Collaborate with peers about similar interests

Standards

21st Century Standards

- 9.1.8.C.3 Model leadership skills during classroom and extra-curricular activities.
- 9.1.4.D.2 Express needs, wants, and feelings appropriately in various situations.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Complete an interest inventory
- Interview family members or friends that have had a positive impact on student's lives. (sample questions could include occupation-related, morals/values, advice about life, educational-related)
- Perform activities such as role-playing, dressing up, and acting the part of an occupation of interest

Differentiation

Interest inventory can be scaffolded based on reading and writing levels
Give students the option of acting out a profession, drawing, writing or speaking

Resources

Helpful websites: Personality Test - <http://www.personalitylab.org> ; Bureau of Labor and Statistics –A to Z list of careers - <http://www.bls.gov/k12/aclist.htm> ; Career Interest Inventory - <http://www.pyninc.org/careerexposuretoolkit/downloads/CareerInterestInventory.pdf> ; Differentiated Instructional Strategy Interest Inventory - <http://www.duvalschools.org/newteachers/DI%20Strategies/DI%202012/Interest%20Inventory.pdf>

Kindergarten
Unit 2:
Economics – People/Work
8 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- Why do people work?
- What are the benefits and challenges of working?
- What is the difference between a “want” and a “need”?
- How do people survive in the world if no one is taking care of them?
- Why do people save money?

Enduring Understandings:

- People have many different kinds of jobs.
- People work to earn money.
- You need things to survive. A want is an item you would like to have but do not need.
- People use money to buy things that they want or need.
- People save money to buy things they might need in the future.

Objectives - Students will be able to:

- Understand that there are different kinds of jobs and understand that a product is something made by humans, machines, or nature.
- Observe that everyone has needs and wants and understand the difference between needs and wants.
- Explain how basic needs for food, clothing, and a place to live can be met.
- Recognize that people meet their needs by buying goods and services and understand the difference between goods and services.
- Understand that people exchange money for goods and recognize why people save money.

Standards

21st Century Standards

- 9.2.4.A.1 Explain the difference between a career and a job, identify various jobs within the community and the related earnings.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Recognize the characteristics of a product and correctly organize them. For example, display things that are electric and things that aren't electric and have the students categorize them.
- Create a “Needs and Wants” Collage – Cut out pictures and place them in the correct category.
- “Water is your best friend” lesson
- Brainstorm a list of individual jobs and discuss
- Complete goods and services worksheet
- Barter and trade different objects with partners and share how the students felt about the activity

Differentiation

- Use pictures to go along with discussions for visual and auditory learners.
- Have students act out different careers for more active students
- Vocabulary reinforcement
- Reduce the amount of items to categories for students who can be overwhelmed with too many choices

Resources

- http://www.dsrdsd.com/img/img_lesson_plans/Kindergarten_Lesson_Plan.pdf
- Grow Healthy instructional materials
- http://www.superteacherworksheets.com/economics/goods-and-services_WMZTR.pdf
- ABC's of saving - <http://www.econedlink.org/lessons/EconEdLink-print-lesson.php?lid=414&type=educator>
- “Why We Save” lesson - <http://ecedweb.unomaha.edu/lessons/savek-2.pdf>

Kindergarten
Unit 3:
Exploring with the Senses
6 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What are the 5 senses?
- How do I use the 5 senses?
- How can using the 5 senses help me?
- What happens if I lose one of my senses?
- How do objects look up close and from far away?
- How can you group objects by their properties?
- How are materials alike and different?

Enduring Understandings:

- The 5 senses help us to explore the world we live in.
- Some people have lost one or more sense, which in turn, may heighten another sense.
- All individuals can adapt to their environment using one or more of their senses.
- Objects and materials can be grouped by their properties.

Objectives - Students will be able to:

- Identify objects and discuss the kinds of information that each sensory organ provides.
- Conclude that information gathered about a nearby object and the same object seen at a distance may vary
- Classify objects based on their observable properties.
- Observe properties of objects and classify the objects into groups based on the materials from which they are made.

Standards

- 5.1.4.A.3 – Use scientific facts, measurements, observations, and patterns in nature to build and critique scientific arguments.
- 5.1.4.B.3 – Formulate explanations from evidence

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Senses on the Farm – practice naming and describing the five senses as they sing verses of “Old MacDonald Had a Farm”
- Telling a Story – creating children and animals on a piece of poster-board while describing the senses used and classifying the kinds of information that each sensory organ provides.
- Playing “I Spy” with the five senses – playing a game in which the students focus on and describe objects that are close up and far away
- Classify scents, using the sense of smell and identify scents that are associated with different objects.
- Observe properties of objects and classify the objects into groups based on the materials from which they are made.
- Grouping objects by touch – using their sense of touch, students examine objects with different properties, such as hardness, texture, etc. Place objects in different bags and have the students draw a picture of what they think they are touching and then reveal the actual object.

Differentiation

- Have students work individually and in groups throughout the unit
- For students who are able to write, they can write their own story while the others work with the teacher as a group

Resources

- “I Spy” books
- Various objects that smell different, some with very pungent smells
- Various objects with different touchable properties, such as pencils, squishy balls, cooked spaghetti, blocks, something fuzzy, etc.
- Helpful websites: 5 senses activities - <http://www.littlegiraffes.com/fivesenses.html>;
<http://www.education.com/activity/the-5-senses/>;
<http://www.notimeforflashcards.com/2012/10/21-five-senses-activities-for-kids.html>

Kindergarten
Unit 4:
Friends and Family – Culture
8 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What does it mean to be a friend?
- What different traditions and celebrations are there in the world?
- What are the roles of people in their family?

Enduring Understandings:

- People celebrate different holidays around the world.
- A good friend is caring and helpful.
- People serve different roles in the community.

Objectives - Students will be able to:

- Explain why different holidays are celebrated worldwide.
- Differentiate between the actions of a good friend and one who is not a good friend.

Standards

- 9.1.4.D.3 – Demonstrate an awareness of one’s own culture and other cultures during interactions in and outside the classroom

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Try foods from different cultures
- Discuss what it means to be a good friend
- Read books about different holidays and create a craft related to the holiday
- Draw a family tree

Differentiation

- Give students the option to act out, share aloud or draw a picture of what is a good friend
- Group students who may need extra help with the family tree together in order to give extra assistance

Resources

Book: Children Just Like Me by Anabel Kindersley

Kindergarten
Unit 5:
Where We Live
8 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What types of homes do people and animals live in?
- What is a neighborhood?
- How are the city and the country different? The same?
- How do people get from place to place?
- What is Earth's surface like?

Enduring Understandings:

- People in different locations live in homes of different sizes and that are made of different materials. They can look very different than the homes in your neighborhood. Animals make their homes from the resources in their area.
- A neighborhood is a place where groups of families live, work and play together.
- In a city, there are more people living closer together, more businesses and heavy traffic. In the country, there is more open land, people live further apart and you can see more animals.
- People use transportation such as cars, boats, buses, trains and planes to get from one place to another. They may travel for work, to visit people or just to explore a new place.
- Earth's surface is mostly covered by water. It has 7 continents.

Objectives - Students will be able to:

- Identify different types of homes
- Understand what is a neighborhood and why we live in neighborhoods
- Compare and contrast the city to the country
- Identify different types of transportation
- Describe Earth's surface

Standards

- 5.1.4.B.2 – Measure, gather, evaluate, and share evidence using tools and technologies
- 6.1.4.B.7 – Explain why some locations in New Jersey and the United States are more suited for settlement than others.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Matching game- match animals to their homes
- Draw a picture of your home
- Carton City- using empty cartons create a 3D city
- Create interview questions for a neighborhood community worker such as a police man or teacher
- Cut out pictures and decide if they should go under “City” or “Country”
- Survey the students on how they get to school. Create a bar graph with the results.
- Use clay to create models of different types of landforms such as a mountain or plateau

Differentiation

- Give students a graphic organizer for survey
- Pair students together who may need extra help with another student for the “City” or “Country” activity

Resources

- Animal/Home Matching Game

1st Grade
Unit 1:
Getting to Know ME
3 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What do I enjoy doing in my free time?
- How am I NOW?
- What are things that I love?
- What kinds of things interest me?
- What are things that I do not like to do?
- What am I good at?
- Who do I like to spend time with and where?
- Who has shaped my thinking and how can I model that behavior?
- What do I want to be when I grow up?
- What are my short-term goals for this school year?
- What are my long-term goals for my academic future?

Enduring Understandings:

- Each person is unique and has different interests and goals for themselves.
- To be successful in life we must have a vision of what we would like to achieve.
- Each person has various abilities and strengths and it is okay for people to be strong in one area but not in another.
- Understand different career descriptions that may or may not interest students.
- Various individuals shape the way we think and act.

Standards

- 9.1.8.C.3 Model leadership skills during classroom and extra-curricular activities.
- 9.1.4.D.2 Express needs, wants, and feelings appropriately in various situations.

Objectives - Students will be able to:

- Describe what they enjoy doing.
- Identify their particular interests and talents by analyzing results of an interest inventory
- Describe the characteristics of a chosen occupation
- Collaborate with peers about similar interests

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Complete an interest inventory
- Interview family members or friends that have had a positive impact on student's lives. (sample questions could include occupation-related, morals/values, advice about life, educational-related)
- Research an occupational field that interests the student and give a presentation.
- Perform activities such as role-playing, dressing up, and acting the part of an occupation of interest

Differentiation

Interest inventory can be scaffolded based on reading and writing levels
Give students the option of acting out a profession, drawing, writing or speaking

Resources

- Helpful websites: Personality Test - <http://www.personalitylab.org> ; Bureau of Labor and Statistics –A to Z list of careers - <http://www.bls.gov/k12/aclist.htm> ; Career Interest Inventory - <http://www.pyninc.org/careerexposuretoolkit/downloads/CareerInterestInventory.pdf> ; Differentiated Instructional Strategy Interest Inventory - <http://www.duvalschools.org/newteachers/DI%20Strategies/DI%202012/Interest%20Inventory.pdf>

1st Grade
Unit 2:
All Kinds of Jobs
6 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What are jobs in the community?
- What are service jobs?
- How are goods made? Who makes them?
- How do people exchange goods and services?
- How can technology help make work easier? What challenges may it cause?

Enduring Understandings:

- Different jobs provide different benefits to the community.
- Service jobs directly help people in the community such as a police officer and a fire fighter.
- People use money to purchase goods or services.
- Various jobs are needed to create all the things you are able to purchase or services you may buy.
- Technology and other inventions have made work easier but it can also have drawbacks.

Objectives - Students will be able to:

- Identify a variety of jobs (services jobs and other jobs) and describe the responsibilities of the job and the benefits to the community
- Describe how certain jobs are made. Identify the title of the person who makes these objects.
- Explain how people use money to purchase goods and services.
- Differentiate between the positive and negatives of technological advances

Standards

- 9.2.4.A.1 Explain the difference between a career and a job, identify various jobs within the community and the related earnings.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Have students draw a picture of themselves in a profession. Have them explain why they would be good at this job and why they want to do this job.
- Have students act out a job and others in the class can guess who they are.
- Create an advertisement for a product
- Students will list how they spent money. As a homework assignment, they can write how money has been spent in the home.
- Compare tools used in the past in a certain profession to the tools used today.

Differentiation

- Bring in tools from the past if possible for students who are more visual and hands on learners
- For students who feel overwhelmed by too many choices, give them a choice of two or three products that they can create an advertisement for
- Give students the option to tell why they would excel in a career orally or through writing

Resources

- Hot on the Trail board game to distinguish between wants and needs
- Books about careers in the classroom for students to read through
- Spending Money Worksheet

**1st Grade
Unit 3:
Magnets
6 weeks**

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What types of items can be attracted to a magnet?
- What is a magnetic force?
- Where are magnets strongest?
- What do the poles of magnets do?
- What is a magnetic field?

Enduring Understandings:

- Most metal objects are attracted to a magnet. Non-metal objects are not attracted to a magnet.
- Magnets can be of varying strength.
- All magnets are strongest at the poles.
- Magnets have a force field around them which can attract objects without touching.

Objectives - Students will be able to:

- Classify objects that will and won't be attracted to a magnet.
- Explain a magnetic force field and poles.
- Create ways to identify stronger and weaker magnets.

Standards

- 5.1.8.B.2 – Gather, evaluate, and represent evidence using scientific tools, technologies, and computational strategies.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Make predictions about attraction and then test those predictions. Afterwards classify into two groups: attracted to a magnet and not attracted to a magnet.
- Testing magnetic force: place a paper clip and magnet on a string. Place an object between the clip and magnet. Record what happens. Ask why this happens?
- See how many paperclips the middle, side and poles can hold. Make a bar graph with the results. Discuss.
- Make magnetic patterns using bar magnets.
- Have students try to make a magnet move on top of a thin book by moving a magnet underneath the book.

Differentiation

- Let students work individually, in pairs and in whole group throughout the lesson

Resources

- Book: Marta's Magnets By Wendy Pfeffer
- Interactive CD-ROM : I Love Science – Magnet Activity

1st Grade
Unit 4:
Changes Over Time
8 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What was the Earth like a long time ago?
- What were dinosaurs like? How big were they?
- What can we learn from fossils?
- How do fossils form?
- What did extinct animals eat?

Enduring Understandings:

- Describe the Earth in the distant past.
- Dinosaurs were very large creatures but there were also some smaller dinosaurs.
- Fossils can teach us about animals and plants that no longer exist.
- Fossils are left in rocks and earth using pressure.
- Animal's teeth give clues to their diet.

Objectives - Students will be able to:

- Collect, record and interpret data about dinosaurs
- Infer the size and other information from fossils and bones
- Understand we can learn about the past from finding bones, teeth, and fossils.
- Use bones, teeth and fossils to make inferences to diet, size, and other characteristics.

Standards

- 6.2.8.D.1.c – Explain how archaeological studies are used to develop and enhance understanding of life prior to written records
- 5.3.2.E.2 – Describe how similar structures found in organisms (e.g., eyes, ears, mouth) have similar functions and enable those organisms to survive in different environments.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Create a diorama of the Earth as it looked long ago.
- Make a model of a dinosaur in comparison to a familiar animal that lives today.
- Study how bones and fossils are found.
- Compare the student's skeleton to the skeleton of a dinosaur. Discuss what inferences they can make about the dinosaur.
- Create a fossil using plaster of Paris. Compare this to a real fossil.
- Create a menu for dinosaurs dividing the menu into herbivore and carnivore choices.

Differentiation

- Use fossils (G&T Room) for tactile learners
- Group students who will need extra assistance with creating their own fossil
- vocabulary reinforcement
- Have students choose to work in pairs or alone for the Menu activity

Resources

- Collection of fossils

**1st Grade
Unit 5:
Citizens
8 weeks**

STAGE 1 – DESIRED RESULTS

Essential Questions:

- Why do we have laws?
- What is a leader?
- Why do people vote?
- What rituals/symbols are related to citizenship?
- What makes a person a good citizen? How can you be a good citizen?

Enduring Understandings:

- Laws are rules people follow to keep them safe.
- A leader helps to make laws.
- People vote to make decisions that will make the majority of people satisfied.
- People make pledges and sing certain songs to show that they are all citizens of one place. People hang flags as a symbol that they are a citizen of a given place.
- A good citizen is truthful, believes in treating others equally and takes responsibility for the people around them.

Objectives - Students will be able to:

- Explain the need for rules in the classroom and other settings.
- Identify leaders in the school and government.
- Identify and use voting as a way to make a decision
- Identify symbols and rituals used in the United States to show patriotism
- Identify the characteristics that make a good citizen

Standards

6.3.4.A.1 Evaluate what makes a good rule or law.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Discuss classroom rules and relate those to rules outside of school. Create posters of students following the rules and a caption of the rule and why it is important to follow this rule.
- Have students draw themselves in a leading role. Have them write a short sentence about how they are leading.
- Have the students vote democratically on a choice that will be implemented that day. For example: Should we have 10 minutes of playing 7-UP or 10 minutes to do a short art project?
- Research NJ State symbols. Present them to the class.
- Design a postage stamp of a good citizen. In a short presentation, explain why they choose this person.

Differentiation

- For students who struggle with writing, ask them to tell you orally and record their answer for them
- For students who struggle with choices, tell them what state symbol they will research
- Give a graphic organizer for the research paper for those who need guiding questions

Resources

- NJ State Symbols: <http://www.njleg.state.nj.us/kids/1280njsym.asp>
- NJ State flag and Seal: <http://www.njleg.state.nj.us/kids/index.asp>

2nd Grade
Unit 1:
Getting to Know ME
3 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What do I enjoy doing in my free time?
- How am I NOW?
- What are things that I love?
- What kinds of things interest me?
- What are things that I do not like to do?
- What am I good at?
- Who do I like to spend time with and where?
- Who has shaped my thinking and how can I model that behavior?
- What do I want to be when I grow up?
- What are my short-term goals for this school year?
- What are my long-term goals for my academic future?

Enduring Understandings:

- Each person is unique and has different interests and goals for themselves.
- To be successful in life we must have a vision of what we would like to achieve.
- Each person has various abilities and strengths and it is okay for people to be strong in one area but not in another.
- Understand different career descriptions that may or may not interest students.
- Various individuals shape the way we think and act.

Objectives - Students will be able to:

- Describe what they enjoy doing.
- Identify their particular interests and talents by analyzing results of an interest inventory
- Describe the characteristics of a chosen occupation
- Collaborate with peers about similar interests
- Design and participate in an “interest club”

Standards

- 9.1.8.C.3 Model leadership skills during classroom and extra-curricular activities.
- 9.1.4.D.2 Express needs, wants, and feelings appropriately in various situations.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Complete an interest inventory
- Group students with similar interests together to create an “interest club”. Students can meet regularly and discuss different aspects of their club
- Interview family members or friends that have had a positive impact on student’s lives. (sample questions could include occupation-related, morals/values, advice about life, educational-related)
- Research an occupational field that interests the student and give a presentation.
- Create and keep a writing journal while responding to related prompts given by the teacher (example-“What did you do yesterday that you enjoyed?” or “What is one job that you would like to learn more about?”)
- Perform activities such as role-playing, dressing up, and acting the part of an occupation of interest

Resources

- Helpful websites: Personality Test - <http://www.personalitylab.org> ; Bureau of Labor and Statistics –A to Z list of careers - <http://www.bls.gov/k12/aclist.htm> ; Career Interest Inventory - <http://www.pyninc.org/careerexposuretoolkit/downloads/CareerInterestInventory.pdf> ; Differentiated Instructional Strategy Interest Inventory - <http://www.duvalschools.org/newteachers/DI%20Strategies/DI%202012/Interest%20Inventory.pdf>

2nd Grade
Unit 2:
All About Work
6 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- Why do people work?
- What can you do to earn money?
- In what ways can you use money? What are possible outcomes for those choices?
- What is the difference between a need and a want?
- What is the difference between a good and a service?
- How are a producer and a consumer different?
- How do countries trade with each other?

Enduring Understandings:

- People work to earn money and to help the community
- A need is something that will help you survive. A want is something you would like but isn't necessary for you to survive.
- Once you earn money, you can choose to spend or save. If you spend all your money on things you want, you won't have money for things you need.
- Goods are items you can buy. A service is a task or job you can pay someone to do for you.
- A producer makes objects. A consumer buys and uses the object. At some points we are producers and at some points we are consumers.
- Countries trade with each other to earn money and to be able to get resources they may not be able to get in their own country.
-

Objectives - Students will be able to:

- Explain the benefits of working
- Compare a need to a want
- Explain how people can choose to spend their money
- Distinguish between goods and services
- Explain the difference between a producers and a consumer
- Understand why countries trade

Standards

21st Century Standards

- 9.2.4.A.1 Explain the difference between a career and a job, identify various jobs within the community and the related earnings.
- 9.3.4.A.3 Appraise personal likes and dislikes and identify careers that might be suited to personal likes.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Make a list of jobs and write what that person does.
- Interview a parent. Ask how many hours they spend working to earn money, doing work around the house and free time. Create a bar graph with this information.
- Using a Venn Diagram, compare and contrast needs and wants.
- Make a list of needs and wants. Put them in order of importance. Explain to the class their choices.
- Make a savings plan of \$2.00 per week of an allowance and a goal to buy a \$10.00 toy.
- Imagine you are producing a product. Create an advertisement so that consumers will want to buy it.
- Look for labels to see where different objects are made. Put the findings on a map. Discuss how those goods would get from the country of origin to the USA (By train, plane, boat)

Differentiation

- For students who are more independent, they can create their own interview questions. For those who would benefit, you may create the questions for their interview
- Use a large map for the whole class and give a smaller map that students can have at their desk for those who need it

Resources

- Labeled printout of world map
- Venn diagram

2nd Grade
Unit 3:
Ways of Thinking/Brainteasers
8 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- How can I solve problems?

Enduring Understandings:

- Using critical thinking is an important skill to solve problems.
- Collaboration is important to solving problems.
-

Objectives - Students will be able to:

- Evaluate available resources that can assist in problem solving.
- Participate in brainstorming sessions to seek information, ideas and strategies that foster creative thinking.
- Apply critical thinking and problem-solving skills in the classroom and family settings.

Standards

9.1.4.A.1 Recognize a problem and brainstorm ways to solve the problem individually or collaboratively.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Solve problems using the resources listed below.
- Work in groups to solve problems.

Differentiation

- Scaffold brain teasers
- Have a variety of brain teasers based on students strengths (Reading, Science, Math) (G&T Room)

Resources

- Tangrams
- Brain teaser books
- Analogies
- Word problems
- Puzzles

2nd Grade
Unit 4:
Our Community
8 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What is a community?
- What is the difference between a city, the suburbs and a rural area?
- How has our community changed? How can a community change and why would it change?
- What makes a good citizen and how does that help the community?

Enduring Understandings:

- People live in communities and people have different responsibilities that help the community to function properly.
- Recognize the characteristics of the city, suburbs and rural areas.
- Communication, technology, transportation and other aspects can change a community in a positive or a negative way.
- A good citizen benefits the community.

Objectives - Students will be able to:

- Identify different roles in the community and explain how those benefit everyone.
- Compare and contrast the city, suburbs and rural areas.
- Differentiate between the positive and negative changes that can happen in a community
- Identify the characteristics of a good citizen

Standards

6.1.4.A.1 Explain how rules and laws created by community, state, and national governments protect the rights of people, help resolve conflicts and promote the common good.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Draw a map of your neighborhood or write a poem about it. Present it to the class.
- Using a three column graphic organizer, list descriptions of cities, suburbs and rural areas. Discuss the similarities and differences.
- Create a mural showing how transportation and communication have changed.
- Make a poster of something a good citizen would do. Add a caption to state what they are doing.

Differentiation

- Give students the option to write a report in place of creating a mural
- Draw the roads in Chesterfield onto a map for those who may take more time. Let them fill in their home , school, etc. For students who work quickly, they can draw their entire map from scratch.

Resources

- Graphic Organizer:
http://spotlightonmusic.macmillanmh.com/assets/extras/0001/4380/mu08_graphorg_column.pdf

**2nd Grade
Unit 5:
Inventions
10 weeks**

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What is an invention?
- How are inventions created?
- What information is needed to get an invention to market?
-

Enduring Understandings:

- People of all races, genders and ages have created inventions which have changed our society and the way we do things
- Creative thinking is necessary to make an invention
- Inventions are made to solve a problem or to improve the way we do something

Objectives - Students will be able to:

- Identify several inventors and the contributions they made to the world
- Explain the process in creating an invention and implement it
- Use creative thinking skills

Standards

9.1.4.A.1 Recognize a problem and brainstorm ways to solve the problem individually or collaboratively.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Create a new flavor of toothpaste. Take a survey and graph the results. Create the packaging and calculate the retail cost.
- Research several inventors. Discuss why they were important. Role play different inventors creating their invention.

Differentiation

- Create a variety of graphic organizers for the research paper based on the needs of the class
- Let students read the book to themselves or with a partner for those who struggle with reading on grade level
- Vocabulary reinforcement
- Provide alternative texts for various reading levels

Resources

- Book: Ben and Me
- Book: Mistakes that worked

3rd Grade
Unit 1:
Getting to Know ME
3 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What do I enjoy doing in my free time?
- How am I NOW?
- What are things that I love?
- What kinds of things interest me?
- What are things that I do not like to do?
- What am I good at?
- Who do I like to spend time with and where?
- Who has shaped my thinking and how can I model that behavior?
- What do I want to be when I grow up?
- What are my short-term goals for this school year?
- What are my long-term goals for my academic future?

Enduring Understandings:

- Each person is unique and has different interests and goals for themselves.
- To be successful in life we must have a vision of what we would like to achieve.
- Each person has various abilities and strengths and it is okay for people to be strong in one area but not in another.
- Understand different career descriptions that may or may not interest students.
- Various individuals shape the way we think and act.

Objectives - Students will be able to:

- Describe what they enjoy doing.
- Identify their particular interests and talents by analyzing results of an interest inventory
- Describe the characteristics of a chosen occupation
- Collaborate with peers about similar interests
- Design and participate in an “interest club”

Standards

- 9.1.8.C.3 Model leadership skills during classroom and extra-curricular activities.
- 9.1.4.D.2 Express needs, wants, and feelings appropriately in various situations.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Complete an interest inventory
- Group students with similar interests together to create an “interest club”. Students can meet regularly and discuss different aspects of their club
- Interview family members or friends that have had a positive impact on student’s lives. (sample questions could include occupation-related, morals/values, advice about life, educational-related)
- Research an occupational field that interests the student and give a presentation.
- Create and keep a writing journal while responding to related prompts given by the teacher (example-“What did you do yesterday that you enjoyed?” or “What is one job that you would like to learn more about?”)
- Perform activities such as role-playing, dressing up, and acting the part of an occupation of interest

Differentiation

- Use different interest inventories based on reading level
- For those who struggle with writing, their journal entries can done orally and recorded

Resources

- Helpful websites: Personality Test - <http://www.personalitylab.org> ; Bureau of Labor and Statistics –A to Z list of careers - <http://www.bls.gov/k12/aclist.htm> ; Career Interest Inventory - <http://www.pyninc.org/careerexposuretoolkit/downloads/CareerInterestInventory.pdf> ; Differentiated Instructional Strategy Interest Inventory - <http://www.duvalschools.org/newteachers/DI%20Strategies/DI%202012/Interest%20Inventory.pdf>

3rd Grade
Unit 2:
Architecture/Bridges
8 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What is a bridge?
- What careers are involved in the building of a bridge?
- How can bridges be different? What is always the same?
- What are the names and qualities of the different types of bridges?
- What is the history behind bridges?

Enduring Understandings:

- Definition of bridge: a structure carrying a road, path, railroad, or canal across a river, ravine, road, railroad, or other obstacle
- An architect, engineer, construction worker, aerial photographer and surveyor are some of the jobs involved in building a bridge.
- There are differences and similarities between bridges.
- Types of bridges: beam, truss, cantilever, arch, tied arch, cable-stayed and suspension
- Understand the basic history of bridges and identify famous bridges

Objectives - Students will be able to:

- Define a bridge
- Evaluate the roles involved in building a bridge
- Compare and contrast the types of bridges
- Synthesize major historical changes/ events relating to bridges

Standards

9.4.12.O.(1).1 Apply the concepts, processes, guiding principals, and standards of school mathematics to solve science, technology, engineering and mathematics problems.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Role play the careers involved in building a bridge
- Draw the different types of bridges. Compare and contrast them in a discussion.
- Use a Web Quest to find information about the history of bridges

Differentiation

- Pair students based on strengths for the webquest
- vocabulary reinforcement
- Provide alternative texts for various reading levels

Resources

- Bridges binder (G&T Room)
- K'nex

3rd Grade
Unit 3:
Meteorology
8 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What is weather?
- What are the natural indicators of weather changes?
- What are the different types of clouds?
- How are a hurricane and tornado similar and different?

Enduring Understandings:

- Weather refers to the outside conditions such as precipitation, temperature and wind speed
- By noticing certain plants and animals, we can make predictions about impending weather
- The main types of cloud formations are: cirrus, cumulus , and stratus
- Hurricanes cause heavy rain and strong winds over a large area. A tornado causes high wind speeds in small, changing area.

Objectives - Students will be able to:

- Make inferences about weather based on clues outside
- Infer impending weather changes using natural clues
- Identify different types of clouds
- Compare and contrast a hurricane and a tornado

Standards

- 5.4.2.F.1 Observe and document daily weather conditions and discuss how weather influences your activities for the day
- 5.4.4.F.1 Identify patterns in data collected from basic weather instruments

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Create weather instruments such as a wind sock
- Take measurements such as wind speed
- Conduct “A cloud in a jar experiment”
- Research hurricanes and tornados. Write a short report on each.
- Eye of the storm web quest: Hurricanes

Differentiation

For the webquest, reduce the amount of questions for certain students
Provide alternative texts for various reading levels
During experiments, seat students based on the needs of individuals

Resources

Excellent weather experiments : <http://www.weatherwizkids.com/weather-experiments.htm>

Web quest: <http://www.glencoe.com/sec/science/webquest/content/hurricanes.shtml>

Weather tools (G&T room)

3rd Grade
Unit 4:
Ancient Greece
10 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- How has Ancient Greece affected our modern lives?
- What was life like in Ancient Greece?
- Who are the important figures in Greek History?

Enduring Understandings:

- The Ancient Greeks contributed the following to our modern culture: philosophy, democracy, and the Olympics
- The Ancient Greeks had a rich culture with their own alphabet, customs, literary style and government
- Homer wrote the Iliad and the Odyssey. Plato and Socrates were Greek philosophers.

Objectives - Students will be able to:

- Develop historical perspective and cultural perception by recognizing and understanding that history is a record of human experience with a past, present and a future.
- Understand the elements of culture and develop an appreciation for the similarities and differences that exist among cultures.
- Develop creative expression through the application of knowledge, ideas, communication skills, organization abilities and imagination.
- Develop an awareness of place
- Understand time and chronology
- Develop a sense of historical empathy

Standards

- 6.2.8.D.2.a Analyze the impact of religion on daily life, government, and culture in various ancient river valley civilizations
- 6.2.8.D.2.d Justify which of the major achievements of the ancient river valley civilizations represent the most enduring legacies

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Create a timeline of important events in Ancient Greece
- Compare daily life in Ancient Greece to now
- Read: Aesop's fables, excerpts from Iliad and Odyssey
- Write a character sketch about someone from Greek mythology
- Research the Greek Olympics
- Write your name in Greek
- Discuss the lives of important Greek figures such as: Homer, Plato, and Socrates

Differentiation

- Students can read to themselves or pair them based on reading level
- Provide alternative text based on interest area
- Create partially completed timeline for those who may work slower

Resources

- Teacher book: History Pockets- Ancient Greece

3rd Grade
Unit 5:
Gardening/Hydroponics
8 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What are the parts of a plant?
- What conditions are optimal for gardening?
- Why is gardening an important skill?
- How can it be important for the community?
- How can we grow plants if we have poor soil?

Enduring Understandings:

- A flowering plant consists of a: flower, stem, leaf and roots
- Each plant has unique needs. It is best to know how much sunlight, soil type and needed amount of water for your specific type of plant.
- Gardening can provide food for people and can make a place more beautiful. It also helps the environment.
- Plants are able to grow outside of soil through hydroponics.

Objectives - Students will be able to:

- Identify the parts of a plant
- Differentiate the needs of certain plants
- Create a plan for a garden
- Understand the benefits of gardening

Standards

5.3.6.B.1 Describe the sources of the reactants of photosynthesis and trace the pathway to the products

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Examine the parts of a plant
- Grow a bean in wet cotton balls or Indian corn in water
- Plan a garden by making a map
- Implement your plan and care for it
- Label the parts of a plant

Differentiation

- Give two versions for the Label a Plant activity, one being much more detailed than the other

Resources

- Hydroponics guide: <http://theimaginationtree.com/2012/04/growing-beans-on-cotton-balls.html> or <http://thehomeschoolden.blogspot.com/2010/10/fall-theme-activities-indian-corn.html>
- Label parts of a plant: <http://urbanext.illinois.edu/gpe/case1/c1m1app.html>

4th Grade
Unit 1:
Getting to Know ME – Autobiography
6 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What do I enjoy doing in my free time?
- What important things happened in my life?
- How am I NOW?
- What are things that I love?
- What kinds of things interest me?
- What are things that I do not like to do?
- What am I good at?
- Who do I like to spend time with and where?
- Who has shaped my thinking and how can I model that behavior?
- What do I want to be when I grow up?
- What are my short-term goals for this school year?
- What are my long-term goals for my academic future?

Enduring Understandings:

- Each person is unique and has different interests and goals for themselves.
- To be successful in life we must have a vision of what we would like to achieve.
- Each person has various abilities and strengths and it is okay for people to be strong in one area but not in another.
- Understand different career descriptions that may or may not interest students.
- Various individuals shape the way we think and act.

Objectives - Students will be able to:

- Write about their lives
- Describe what they enjoy doing.
- Identify their particular interests and talents by analyzing results of an interest inventory
- Describe the characteristics of a chosen occupation
- Collaborate with peers about similar interests
- Design and participate in an “interest club”

Standards

- 9.1.8.C.3 Model leadership skills during classroom and extra-curricular activities.
- 9.1.4.D.2 Express needs, wants, and feelings appropriately in various situations.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Complete an interest inventory
- Create a Life Map
- Write an autobiography
- Interview family members or friends that have had a positive impact on student’s lives. (sample questions could include occupation-related, morals/values, advice about life, educational-related)
- Research an occupational field that interests the student and give a presentation.
- Create and keep a writing journal while responding to related prompts given by the teacher (example-“What did you do yesterday that you enjoyed?” or “What is one job that you would like to learn more about?”)

Differentiation

- Students can use their Life Map or an Autobiography outline to guide their writing

Resources

- Helpful websites: Personality Test - <http://www.personalitylab.org> ; Bureau of Labor and Statistics –A to Z list of careers - <http://www.bls.gov/k12/aclist.htm> ; Career Interest Inventory - <http://www.pyninc.org/careerexposuretoolkit/downloads/CareerInterestInventory.pdf> ; Differentiated Instructional Strategy Interest Inventory - <http://www.duvalschools.org/newteachers/DI%20Strategies/DI%202012/Interest%20Inventory.pdf> ;

4th Grade Unit 2: Simple Machines 9 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- How do simple machines work?
- How do we use simple machines to make our lives easier?
- What machines can we create to solve problems in our lives?
- How can simple machines be used in the designs of complex machines?

Enduring Understandings:

- There are a variety of simple machines (levers, gears, pulleys, etc.) that can be used on their own or in more complex designs.
- Humans create and use simple machines to make tasks easier and faster.
- Throughout history many individuals have created machines to solve problems and make tasks easier.
- When we encounter a challenging task, we can problem-solve about ways to make it easier.

Objectives - Students will be able to:

- Identify various simple machines
- Compare and contrast the structure and capabilities of simple machines
- Build models of simple machines: inclined planes, screws, wedges, wheels and axles, levers, gears, pulleys
- Research and communicate how simple machines make work easier
- Identify the use of simple machines throughout daily life
- Create simple machines to solve problems in life or our world
- Explain how simple machines are utilized in more complex machines

Standards

5.1.4.A.2 Use outcomes of investigations to build and refine questions, models and explanations

5.1.4.B.1 Design and follow simple plans using systematic observations to explore questions and predictions

STAGE 2 – ASSESSMENT EVIDENCE

May include but not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities:

- Learning vocabulary: work, force, machine, inclined plane, screw, wedge, wheel and axle, lever, gear, pulley
- K’Nex Simple Machine activity cards and pieces: For each construction, build the model and complete the problem-solving challenges (such as conducting experiments, performing measurements and calculations, modifying and designing the model).
- Teach classmates how each machine works and explain its mechanical advantage
- Write and illustrate how a simple machine is making the lives of people easier
- Research and inventor who used a simple machine in an invention. Determine and explain how that simple machine was used and how the invention helped people.
- Use at least two machines to create a new invention. Present the invention and explain what problem it solves in your life.
- Choose a complex machine and determine how simple machines are utilized in its design.

Differentiation

- Vary the graphic organizer for the research paper based on students’ needs
- Let students work in groups for the Invention activity

Resources:

- K’Nex Simple Machines Educator Guides
- K’Nex building pieces
- Safari Montage
- <http://www.mikids.com/Smachines.htm>
- <http://www.fi.edu/qa97/spotlight3/>
- <http://lessonplanspage.com/sciencemd6simplemachinesfullunit46-htm/>

4th Grade
Unit 3:
Mystery Writing
8 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- How can we develop strong characters in our writing?
- How do the characters in a story affect other story elements, such as plot and setting?
- How does plot structure vary between mystery writing and other genres?
- What writing devices are most effective when writing mystery stories?

Enduring Understandings:

- Understand different writing techniques
- Solving mysteries incorporates problem-solving skills
- Good character development enhances the quality of the story

Objectives - Students will be able to:

- Write a mystery that contains certain elements of the genre, including: crime, detective, clues, suspects, motivation
- Develop a strong character through pre-writing activities, prior to drafting a story
- Reveal a character's personality through actions, words, possessions, appearance, etc.
- Create a setting that reflects the character
- Use symbolism to reflect the character's personality
- Edit one's own writing and the writing of peers

Standards

CCSS ELA-Literacy.W.4.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequence that unfolds naturally

STAGE 2 – ASSESSMENT EVIDENCE

May include but not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities:

- Work on a personality bubble map – with 6 lines coming from the personality circle
- Show, Don't Tell – Read a passage and have students discuss character traits that come through in the writing
- Jackets Have Personalities – share pictures of different jackets, write sentences about the personality of the jackets, the owners, and the environment the jacket is in. (page 31)
- Read a short story and discuss the symbols and what they suggest about the characters.
- Write and edit a mystery story

Differentiation

- Alternate between whole group mini lessons and small group mini lessons
- Arrange seating so that you are able to work more closely with those who need to be refocused

Resources:

- Challenging Units for Gifted Learners (Language Arts Edition) by Smith and Stonequist
- Mystery Unit Binder (G&T Room)
- Books: Grandpa's Teeth and A Bad Day at Riverbend as mentor texts

4th Grade
Unit 4:
Building a Miniature Golf Course
10 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What makes games of miniature golf so appealing to people?
- Which hole designs are the most attractive and fun? Why? How can we construct such a design?
- What strategies can a golfer use to achieve a hole-in-one?
- How does the design of the miniature golf hole affect which strategies should be used?
- Where must a golfer hit the ball on a bumper to send it toward the hole?
- How can geometry concepts such as angle measures help us to hit a hole-in-one?
- How do people use levers in everyday life?
- How can we build a lever? How can we incorporate a lever into our miniature golf course design?

Enduring Understandings:

- Games of strategy, such as miniature golf, are appealing to people and require us to think critically about outcomes.
- Geometry knowledge, like congruent angles, can help people to achieve a hole-in-one or the best score possible.
- We can make predictions about the motion of objects, such as golf balls, based on what we know about forces.
- Levers (first and second class) are used in a variety of everyday life situations.
- We can use our artistic talents to design unique, creative projects that are visually appealing and fun.

Objectives - Students will be able to:

- Build a miniature golf course based on the principles of geometry: including isosceles triangles, congruent angles, and bisected segments
- Measure and record congruent angles
- Bisect and measure isosceles triangles and use the findings to predict paths for holes in one
- Reflect points over a line and use the findings to predict paths for holes in one
- Graph, build and manipulate sets of pentominoes; use pentominoes to shape the golf holes
- Locate, draw and photograph different classes of levers; build first and second class levers
- Incorporate levers into the designs of the golf holes
- Use artistic ability to design and decorate a golf hole around a specific theme

Standards

CCSS.Math.Content.4.G.A.1 Draw points, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines.

STAGE 2 – ASSESSMENT EVIDENCE

May include but not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities:

- Introduction to the role angles play in miniature golf
- Finding and measuring angles
- Discovering how congruent angles make someone a better golfer
- Reflection and geometry proofs
- Pentominoes: creating various shapes and choosing a design for your hole
- What is a lever
- Incorporating a lever into a miniature golf hole
- Second-class levers, and fulcrums in first-class levers
- Is a golf club a lever?
- Designing the miniature golf holes
- Building and decorating the miniature golf holes
- Playing the golf holes

Differentiation

- This unit incorporates math, science and art so each student is able to bring their own strengths to the group to complete the unit as a whole

Resources:

- Challenging Units for Gifted Learners (Math Edition) by Smith and Stonequist
- <http://www.achieve.org/files/CCSS-CTE-Task-MiniatureGolf-FINAL.pdf>
- <http://boyslife.org/hobbies-projects/projects/718/fore/>
- Geometry related lessons in Everyday Math

5th Grade
Unit 1:
Getting to Know ME- Career Investigation
6 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What do I enjoy doing in my free time?
- How am I NOW?
- What are things that I love?
- What kinds of things interest me?
- What are things that I do not like to do?
- What am I good at?
- Who do I like to spend time with and where?
- Who has shaped my thinking and how can I model that behavior?
- What careers interest me?
- What careers would I excel?
- What are my short-term goals for this school year?
- What are my long-term goals for my academic future?

Enduring Understandings:

- Each person is unique and has different interests and goals for themselves.
- To be successful in life we must have a vision of what we would like to achieve.
- Each person has various abilities and strengths and it is okay for people to be strong in one area but not in another.
- Career choices will effect various aspects of your life such as schedule, economic security, socialization and happiness.
- Understand different career descriptions that may or may not interest students.
- Various individuals shape the way we think and act.

Objectives - Students will be able to:

- Describe what they enjoy doing.
- Identify their particular interests and talents by analyzing results of an interest inventory
- Synthesis research to create a report about a career
- Describe the characteristics of a chosen occupation
- Collaborate with peers about similar interests
- Design and participate in an “interest club”

Standards

- 9.1.8.C.3 Model leadership skills during classroom and extra-curricular activities.
- 9.1.4.D.2 Express needs, wants, and feelings appropriately in various situations.
- 9.2.12.A.2 Identify a career goal and develop a plan and timetable for achieving it, including educational/training requirements, costs, and possible debt.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Complete an interest inventory
- Group students with similar interests together to create an “interest club”. Students can meet regularly and discuss different aspects of their club
- Research a career
- Present your research in any of the following platforms: story book, oral presentation, creating a brochure, writing a report
- Interview family members or friends that have had a positive impact on student’s lives. (sample questions could include occupation-related, morals/values, advice about life, educational-related)
- Research an occupational field that interests the student and give a presentation.
- Create and keep a writing journal while responding to related prompts given by the teacher (example-“What did you do yesterday that you enjoyed?” or “What is one job that you would like to learn more about?”)
- Perform activities such as role-playing, dressing up, and acting the part of an occupation of interest

Resources

- Helpful websites: Personality Test - <http://www.personalitylab.org> ; Bureau of Labor and Statistics –A to Z list of careers - <http://www.bls.gov/k12/aclist.htm> ; Career Interest Inventory - <http://www.pyninc.org/careerexposuretoolkit/downloads/CareerInterestInventory.pdf> ; Differentiated Instructional Strategy Interest Inventory - <http://www.duvalschools.org/newteachers/DI%20Strategies/DI%202012/Interest%20Inventory.pdf> ;
- Non-fiction career books

5th Grade
Unit 2:
Building a Funfair
6 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- How are percents, decimals and fractions related?
- How can you determine the probability for certain outcomes?
- How can you use probability to decide if a game is fair or unfair?

Enduring Understandings:

- Percents, decimals and fractions can be used to represent the same value in a different format.
- Probability is the number of desired outcomes over the number of possible outcomes
- A game is unfair if you have less than a 50% chance of winning
- By changing the rules of a game, you can make a game fair or unfair

Objectives - Students will be able to:

- Compute the probability of various outcomes
- Compute probability for compound events
- Convert fractions, decimals and percents to another form
- Develop, analyze and explain the methods they used to solve problems
- Communicate their mathematical thinking to peers
- Use problem solving to alter a games 'fairness'

Standards

CCSS.Math.Content.5.MD.B.2 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.

CCSS.Math.Content.6.RP.A.2 Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $\frac{3}{4}$ cup of flour for each cup of sugar." "We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger."¹

STAGE 2 – ASSESSMENT EVIDENCE

May include but not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities:

- Lesson 1: Introduction to probability
- Lesson 2: Equalizing Probability: “Rock Paper Scissors”
- Lesson 3: Independent Events: “Guess your luck”
- Lesson 4: Experimental and Theoretical probabilities: “Chip toss”
- Lesson 5: Simulation Plan: “Allowance Challenge”
- Lesson 6: Creating games for the Funfair
- Lesson 7: Testing Games and Preparing for the Funfair
- Lesson 8: Final Preparations, Participate in Funfair and debriefing

Differentiation

- Students are able to work individually, in pairs and as a group throughout the unit
- Vary the amount of work load based on students’ needs

Resources:

- Challenging Units for Gifted Learners (Math Edition) by Smith and Stonequist

5th Grade
Unit 3:
The Marsville Project
12 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- Is it possible for life to exist on other planets?
- What are the characteristics of the planet Mars?
- Is it possible for humans to colonize the planet Mars?
- What are the challenges to human colonization of Mars?
- How can humans create solutions to biological problems in order to survive on Mars?
- How can humans use teamwork and communication to co-exist and succeed?

Enduring Understandings:

- Each planet has specific characteristics that differ from one another, some being favorable to human life and others unfavorable.
- The planet Mars has certain challenges to human colonization.
- When we approach a new environment (a new school, country, planet, etc.), we can adapt to it.
- In order for humans to survive there are biological life-supporting systems that must be in place and working properly (such as communication, transportation, food production, etc.).
- Humans can and must communicate and work collaboratively to be successful.

Objectives - Students will be able to:

- Retell mathematical and scientific information about Mars and Earth
- Compare and contrast conditions on Earth and Mars
- Describe the special challenges that the planet Mars poses to human colonization
- Create a solution to the specific biological or social problem assigned to their “Martian colony”
- Design, build and present a model of the assigned life-support system
- Organize, communicate, collaborate and problem solve as a team with students of Chesterfield, as well as the greater Marsville community of schools
- Determine how scientific facts of the planet Mars are applied to solve a problem to human colonization and use this knowledge in the assigned system
- Apply mathematical knowledge of Mars to calculate weights and volumes for lunches
- Erect a “habitat bubble” with students from other schools on Link-Up Day

Standards

5.1.8.A.1 Demonstrate understanding and use interrelationships among central scientific concepts to revise explanations and to consider alternative explanations

STAGE 2 – ASSESSMENT EVIDENCE

May include but not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Research and develop an understanding of the physical and biological characteristics of Mars
- Form teams and select one of eight life-support systems. Then research the type of life-support system their team is going to create
- Design and build mini-models of life-support systems
- Compare and contrast characteristics of Mars and Earth
- Create visually appealing uniforms to wear on Link-Up Day
- Present to classmates how Mars' characteristics have been incorporated into students' life-support systems
- Students communicate their plans for construction with other schools (three teams from various schools make up a "Habitat Crew") through written or technological communication
- Students use mathematical knowledge of weights and volumes in Mars to calculate lunches and pack lunches to meet specific nutrition, size and weight restrictions .
- Students design and construct their 1/3 of the inflatable habitat (which is the physical structure that houses three teams on Link-Up Day).
- Link-Up Day: Students meet at Georgian Court University in their uniforms, along with specifically required lunches and their 1/3 model systems. Teams cooperatively build their habitat bubbles. Teams formally present their systems and participate in various activities. Students problem solve about how to fix a sudden crisis facing their colony. To culminate, all habitat bubbles are physically linked to form Marsville.

Differentiation

- Assign students different tasks based on strengths
- Vary the workload based on student's abilities

Resources

- Marsville Management Manual
- Helpful websites: http://www.nrc-cnrc.gc.ca/eng/education/marsville/teachers/overview_mini.html ;
<http://www.eirc.org/website/giftedandtalented/marsville/>

5th Grade
Unit 4:
Poems from Nature
8 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- How are structure and content important to writing poetry?
- What strategies can I use to understand a poem?
- What is the difference between a metaphor and a conceit?

Enduring Understandings:

- A poet must choose a type of structure and the content before writing a poem.
- Using mentor texts can inspire one with their own writing.
- A reader must use their past experience, vocabulary, knowledge of other poems, context clues and an understanding of textual features to interpret a poem
- A metaphor compares two objects, a conceit compares two things through several metaphors

Objectives - Students will be able to:

- Define and create metaphors, similes, and conceits
- Analyze several poems for rhyme, pattern, figurative language, literal meaning, and symbolic meaning
- Develop personal criteria for evaluating and discussing poetry
- Create original poetry modeled after ones they have read
- Use dramatic voice and expression when presenting original poems to the class
- Collect pictures from nature that reflect poetic themes

Standards

CCSS.ELA-Literacy.W.5.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5 [here](#).)

STAGE 2 – ASSESSMENT EVIDENCE

May include but not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities:

- Lesson 1: Similes, Metaphors and Conceits
- Lesson 2: “The Road Not Taken”
- Lesson 3: Final Versions of Frost-Style Poems
- Lesson 4: “A Late Walk”
- Lesson 5: “Like Trains of Cars on Tracks of Plush”
- Lesson 6: Sharing Student’s work
- Lesson 7: Presentation

Differentiation

- Have extra examples in the room for those who need it
- Provide a short list of optional topics for students who need help making decisions
- Vary mini lessons as small group or whole group based on students’ needs

Resources:

- Challenging Units for Gifted Learners (Language Arts Edition) by Smith and Stonequist
- Poems from Robert Frost and Emily Dickenson

6th Grade
Unit 1:
Getting to Know ME- Memoirs
6 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What do I enjoy doing in my free time?
- How am I NOW?
- What are things that I love?
- What events in my life have had the most impact?
- What kinds of things interest me?
- What are things that I do not like to do?
- What am I good at?
- Who do I like to spend time with and where?
- Who has shaped my thinking and how can I model that behavior?
- What do I want to be when I grow up?
- What are my short-term goals for this school year?
- What are my long-term goals for my academic future?

Enduring Understandings:

- Each person is unique and has different interests and goals for themselves.
- To be successful in life we must have a vision of what we would like to achieve.
- Each person has various abilities and strengths and it is okay for people to be strong in one area but not in another.
- Understand different career descriptions that may or may not interest students.
- Various individuals shape the way we think and act.

Objectives - Students will be able to:

- Write a memoir
- Describe what they enjoy doing.
- Identify their particular interests and talents by analyzing results of an interest inventory
- Describe the characteristics of a chosen occupation
- Collaborate with peers about similar interests
- Design and participate in an “interest club”

Standards

- 9.1.8.C.3 Model leadership skills during classroom and extra-curricular activities.
- 9.1.4.D.2 Express needs, wants, and feelings appropriately in various situations.

STAGE 2 – ASSESSMENT EVIDENCE

May include by not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities

- Complete an interest inventory
- Group students with similar interests together to create an “interest club”. Students can meet regularly and discuss different aspects of their club
- Interview family members or friends that have had a positive impact on student’s lives. (sample questions could include occupation-related, morals/values, advice about life, educational-related)
- Create and keep a writing journal while responding to related prompts given by the teacher (example-“What did you do yesterday that you enjoyed?” or “What is one job that you would like to learn more about?”)
- Write a memoir

Differentiation

- Provide various graphic organizers and let students select on that meets their needs
- Provide list of prompting ideas for reluctant writers

Resources

- Helpful websites: Personality Test - <http://www.personalitylab.org> ; Bureau of Labor and Statistics –A to Z list of careers - <http://www.bls.gov/k12/aclist.htm> ; Career Interest Inventory - <http://www.pyninc.org/careerexposuretoolkit/downloads/CareerInterestInventory.pdf> ; Differentiated Instructional Strategy Interest Inventory - <http://www.duvalschools.org/newteachers/DI%20Strategies/DI%202012/Interest%20Inventory.pdf> ;
- Books: Boy by Roald Dahl, The House on Mango Street by Sandra Cisneros

6th Grade
Unit 2:
Thrill Ride
8 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What are Newton’s Laws of motion?
- How does energy change?
- What are different types of forces? How do they effect energy?
- Why do we use simple machines?

Enduring Understandings:

- Newton’s laws of motion
- Energy cannot be created or destroyed; It only changes form.
- The relationship between forces and energy
- Simple machines can be used to reduce the amount of energy needed to cause change

Objectives - Students will be able to:

- Demonstrate the ability to interpret and explain information generated by their exploration of scientific phenomena by designing a scientifically valid experiment and demonstrating that predictions are based on data.
- Use developmentally appropriate instruments and materials to demonstrate: controlling variables, conducting an experiment, using statistics for analysis, and communicate procedures and findings.
- Work cooperatively, complete hands-on investigations and explore authentic tasks.
- Use a variety of media and formats to communicate information and ideas effectively
- Employ technology in the development of strategies for solving problems in the real world.

Standards

5.2.6.E.3 Demonstrate and explain the frictional force acting on an object with the use of a physical model.

STAGE 2 – ASSESSMENT EVIDENCE

May include but not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities:

- Respond to a letter from an amusement park developer
- Using Newton's Laws, design a ramp to transport fragile items
- Investigate forces exerted on a person on a ride
- Identify the energy transformations in a pendulum
- Design and demonstrate a parachute drop device
- Examine what factors would make a theme park successful
- Write a persuasive essay to the owner of a theme park
- Using K'NEX, create a Ferris Wheel. Prepare a presentation about the simple machines used on the ride

Differentiation

- Add extra examples that connect to students lives for those who have trouble understanding
- Give students the opportunity to work with partners and small groups

Resources:

- K'NEX Manual

6th Grade
Unit 3:
Developing a Small Business
8 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- How can I create a business plan?
- What is the value in doing market analysis?
- What do I want to learn from my customer to improve my chances for selling my product?
- How can I successfully advertise?
- How do I calculate my profit?

Enduring Understandings:

- Market analysis is necessary for increasing sales as it lets you know what customers are looking for which will increase sales
- A business plan should include: goals for the business, costs to make product, description of product, how it will be advertised, description of target customer, etc.
- Successful advertising includes highlighting benefits specific to the desired customer
- Profit = Cost item sells for- Cost to produce and advertise product

Objectives - Students will be able to:

- Understand supply and demand to make decisions regarding the business
- Conduct market analyses to increase profits and use this to create a business plan
- Use mean, median and mode
- Develop budget and profit goals
- Present a request to gain investors
- Develop the product to be sold and how it will be marketed

Standards

- 9.2.8.D.5 Explain the economic principal of supply and demand

STAGE 2 – ASSESSMENT EVIDENCE

May include but not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities:

- Lesson 1: Ideas for a business
- Lesson 2: Calculating Investment and Equity
- Lesson 3: Calculating Profit
- Lesson 4: Projecting 4th Quarter earnings and Business Evaluation
- Lesson 5: Advertising, Knowing your target audience
- Lesson 6: Presenting your business pitch

Differentiation

- Let students select their business partner based on their academic and personality strengths

Resources:

- Challenging Units for Gifted Learners (Math Edition) by Smith and Stonequist
- Small Business Unit binder

6th Grade
Unit 4:
Robotics: Lego Mindstorms Robolab
8 weeks

STAGE 1 – DESIRED RESULTS

Essential Questions:

- What is a robot?
- How are robots being used to solve problems facing society today?

Enduring Understandings:

- It is important to develop strong problem solving skills to help us in everyday life in the real world.
- A team's success depends on the members' abilities to cooperate.
- Robots can be designed and programmed to assist humans with specific challenges or tasks.

Objectives - Students will be able to:

- Design, build and program a robot
- Create and test hypotheses
- Communicate thoughts both orally and in written form
- Explain how robots are being applied to solve problems facing society today
- Use NXT bricks to teach a robot to execute simple behaviors
- Explain how a sensor works and program a sensor

Standards

- 9.4.12.B.(2).14 Manage relationships with teachers and classmates to successfully complete a construction project.
- 9.4.12.O.(1).1 Apply the concepts, processes, guiding principles, and standards of school mathematics to solve science, technology, engineering, and mathematics problems.

STAGE 2 – ASSESSMENT EVIDENCE

May include but not limited to:

- Formal and informal teacher observations
- Discussions
- Teacher questioning and student oral responses
- Performance assessments
- Rubrics
- Lesson assignments and records
- Completed projects
- Class presentations
- Self-assessments
- Peer evaluations

STAGE 3 – Suggested Activities and Resources

Suggested Activities:

- What is a robot? – Research the five fundamental parts of a robot on the Internet (possible resource: HowStuffWorks.com)
- Human vs. Robot – Compare and contrast the fundamental parts of a robot to a human using a Venn Diagram
- Learning about the history of robots and how they are being used today
- Introductory video to become familiar with Lego technology
- Writing instructions – Students write instruction to a simple task (how to make a PB&J sandwich for example) and have other students act as robots and follow the instructions given

Differentiation

- Scaffold mathematically problems based on ability
- Create different writing rubrics based on expectations for each student

Resources:

- <http://education.lego.com/en-us>

DIFFERENTIATION ADAPTATIONS

Areas for consideration when designing accommodations

<p>Learning Environment Allow a “time out” or private space for students to choose Use preferential seating Provide opportunities for movement Vary activities both in and out of desk/table</p>	<p>Curriculum Adapt number of items that need to be completed Use different forms of assessments that demonstrate different learning styles Allow use of charts and calculators Allow different visual aids, concrete examples, hands-on activities, and cooperative groups to learn new concepts</p>	<p>Teaching and Learning Styles Plan using UbD planning tool Adapt the way instruction is delivered to the learner- use multiple teaching styles to teach a new concept Use concrete examples and move towards the abstract Provide an overview of lesson at beginning Monitor the rate and manner in which the material is being presented</p>
<p>Time Demands Allow extra time to complete tests Give different versions of tests Follow a routine Set specific time limits for test</p>	<p>Cooperative Learning Use flexible grouping Use student choice in grouping Assign peer helpers to check in on one another</p>	<p>Behavior Concerns Give clear expectations of goals for the class period Be consistent in follow through with both positive and negative consequences Use of cues Give immediate positive reinforcement and feedback Avoid power struggle Allow for a time out or “cool off” space in classroom for designated amount if time</p>
<p>Attention/Focus Concerns Give notification of transitions Use of cues to refocus Seat near teacher or in area of less distraction Introduce assignments in sequential steps Make sure books/materials are on the correct pages</p>	<p>Organization Give copy of notes Allow student to leave unnecessary materials in a nearby area Color coded materials Use of binder system Use a checklist for work in smaller units</p>	<p>Written Expression Allow use of manuscript, cursive, or typing for assignments Leniency in spelling and neatness (to an agreed upon level) Provide a copy of notes Avoid pressures for speed or accuracy</p>

Visual Processing	Language Processing	Audio Processing
Give highlighted/color coded copy of notes	Give both written and verbal directions	Provide a copy of notes
Avoid copying notes from the board	Slow the rate of presentation and paraphrase information	Use of a checklist
Check in with student to be sure that visuals are comprehended from the beginning of lesson	Keep statements short and to the point	Keep statements short and to the point
Avoided cluttered worksheets keeping them clear and well-defined	Allow for extra wait time	Use of eye contact
	Use student's name before asking a question	Have student sit closer to instruction
	Use of visuals and hands-on materials	Use of student buddy to check in with sitting nearby
	Familiarize students with new vocabulary before lesson	Use of visuals
		Stop and check in for understanding

DIFFERENTIATION

Strategies for Special Education, Struggling, Enrichment, and English Language Learners

Additional Support:

- Vocabulary reinforcement- flash cards, graphic organizers, games
- Frequent use of partners or small groups
- Alternative text- lower reading level text for reference especially for homework assignments
- Build a model
- Hands on experiments
- visual representations- both in class and with assignments
- video demonstrations
- musical connections
- oral review of information after reading
- collaborative group work- flexible grouping
- Different color paper for copies of different things (for example body systems- respiratory- blue, circulatory- gold, digestive- pink...)
- Verbal and non-verbal cues

Extension activities:

- Research report/project
- Make a periodic table
- Create a compound alphabet
- Additional experiments- compare and contrast results to analyze
- Teach a group/peer assistance
- Application to own life or the real world report
- Research careers that use the science being learned and explain how it is used
- Compare and extend past the material covered in class for homework or project
- Content related online academic games
- Complete a visual representation of learned content (i.e. Venn Diagram/T-chart)
- Writing activity in response to content (i.e. letter or story)
- Read/research and share learned information with class

Also see:

[Differentiating-Instruction-for-Gifted-Learners](#)

<http://www.nagc.org/index2.aspx?id=978>

<http://www.gifted.uconn.edu/nrcgt/newsletter/spring98/sprng985.html>

http://www.kidsource.com/kidsource/content/diff_instruction.html

<http://envisiongifted.com/index.html>

<http://www1.teachersfirst.com/gifted/strategies.html>

http://www.sengifted.org/archives/article_category/diversityspecial-populations-of-gifted

<http://www.hoagiesgifted.org/differentiation.htm>

<http://www.ldonline.org/indepth/gifted>

http://www.nagc.org/uploadedFiles/Information_and_Resources/Position_Papers/twice%20exceptionality%20position%20paper.pdf

Chesterfield Elementary School
Gifted and Talented Curriculum Connections
 Indicates at which grades level content is first introduced

GRADE	Standard 9.1.A	Standard 9.1.B	Standard 9.1.C	Standard 9.1.D	Standard 9.1.E	Standard 9.1.F
	Critical Thinking and Problem Solving	Creativity and Innovation	Collaboration, Teamwork, & Leadership	Cross-Cultural Understanding and Interpersonal Communication	Communication and Media Fluency	Accountability, Productivity, & Ethics
K			9.1.8.C.3	9.1.4.D.2 9.1.4.D.3		
1						
2	9.2.4.A.1					
3						
4						
5						
6						

GRADE	Standard 9.2.A	Standard 9.2.B	Standard 9.2.C	Standard 9.2.D	Standard 9.2.E	Standard 9.2.F	Standard 9.2.G
	Income and Careers	Money Management	Credit and Debt Management	Planning, Saving, & Investing	Becoming a Critical Consumer	Civic Financial Responsibility	Risk Management and Insurance
K	9.2.4.A.1						
1							
2							
3							
4							
5	9.2.12.A.2						
6				9.2.8.D.5			

GRADE	Standard 9.3	Standard 9.4
	Career Awareness	Career and Technical Education
K		
1		
2	9.3.4.A.3	9.4.12.O.(1)
3		
4		
5		
6		9.4.12.B.(2).14 9.4.12.O.(1).1

GRADE	Standard 5.1	Standard 5.2	Standard 5.3	Standard 5.4
	Science Practices	Physical Science	Life Science	Earth Science
K	5.1.4.A.3 5.1.4.B.2 5.1.4.B.3			
1			5.3.2.E.2	
2				5.4.2.F.1 5.4.4.F.1
3			5.3.6.B.1	
4	5.1.4.A.2 5.1.4.B.1			
5	5.1.8.A.1			
6		5.2.6.E.3		

GRADE	Standard 6.1	Standard 6.2	Standard 6.3
	US History	World History	Active Citizenship
K	6.1.4.B.7		
1		6.2.8.D.1.c	6.3.4.A.1
2	6.1.4.A.1		
3		6.2.8.D.2.a 6.2.8.D.2.d	
4			
5			
6			

GRADE	CCSS ELA	CCSS Math
K		
1		
2		
3		
4	CCSS ELA- Literacy W.4.3	CCSS.Math.Content.4. G.A.1
5	CCSS.ELA- Literacy.W.5.5	CCss.Math.Content.5. MD.B.2 CCSS.Math.Content.6. RP.A.2
6		

Pacing Guide for Gifted and Talented Curriculum

Kindergarten

Unit Name	Unit Length	Timeline
Getting to Know Me	3 weeks	September
Economics- People/Work	8 weeks	November/December
Exploring with Senses	6 weeks	January/February
Friends & Family- Culture	8 weeks	March/April
Where We Work	8 weeks	May/June

1st Grade

Unit Name	Unit Length	Timeline
Getting to Know Me	3 weeks	September
All Kinds of Jobs	6 weeks	November/December
Magnets	6 weeks	January/February
Changes Over Time	8 weeks	March/April
Citizens	8 weeks	May/June

2nd Grade

Unit Name	Unit Length	Timeline
Getting to Know Me	3 weeks	September
All About Work	6 weeks	November/December
Ways of Thinking/Brainteasers	8 weeks	January/February
Our Community	8 weeks	March/April
Inventions	10 weeks	End of April/May/June

3rd Grade

Unit Name	Unit Length	Timeline
Getting to Know Me	3 weeks	September
Architecture/Bridges	8 weeks	November/December
Meteorology	8 weeks	January/February
Ancient Greece	10 weeks	March/April/Beginning of May
Gardening/Hydroponics	8 weeks	May/June

4th Grade

Unit Name	Unit Length	Timeline
Getting to Know Me: Autobiographies	6 weeks	September/November
Simple Machines	8 weeks	November/December/Beginning of January
Mystery Writing	8 weeks	End of January/February/March
Building a Miniature Golf Course	10 weeks	April/May/June

5th Grade

Unit Name	Unit Length	Timeline
Getting to Know Me: Career Investigation	6 weeks	September/November
Building a Funfair	6 weeks	November/December
Marsville	12 weeks	January/February/March
Poems from Nature	8 weeks	April/May

6th Grade

Unit Name	Unit Length	Timeline
Getting to Know Me: Memoirs	6 weeks	September/November
Thrill Ride	8 weeks	December/January
Developing a Small Business	8 weeks	February/March
Robotics: Lego Mindstorms Robolab	8 weeks	April/May