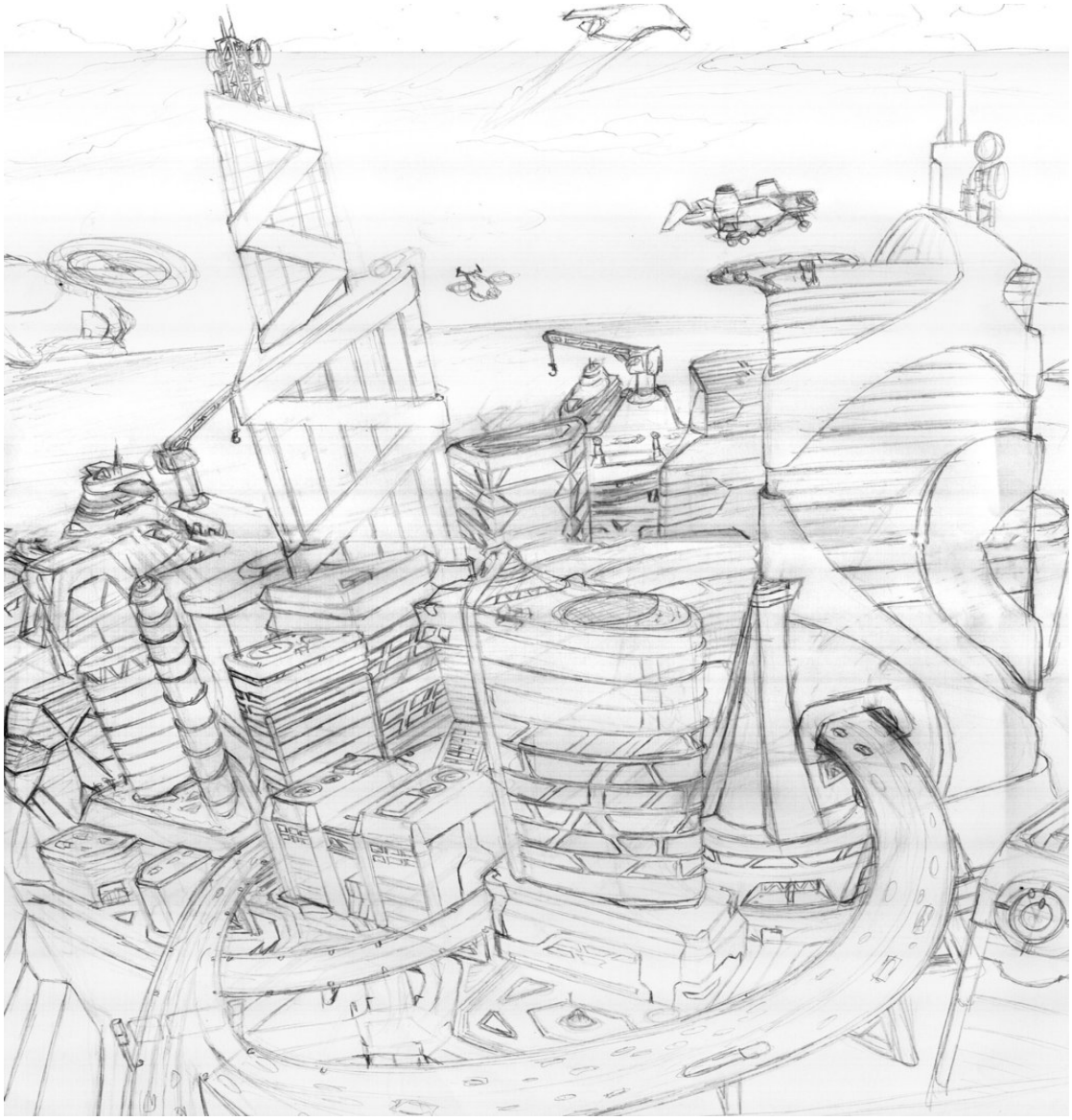
Blueprints of the future!



Caren Balde
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Grades 4th through 6th

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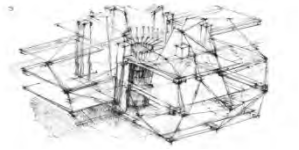
Introduction



A. Rationale

This conceptual unit aims to guide students in making connections between the importance of vision and the future in which visions can create. Students will be able to think in-depth and critically about the role of the visionary across multiple disciplines and about the ways in which a society is shaped by visionaries, innovators, and inventors. Vision, when studied in greater depth, or to a greater level of cognitive challenge, will spark the essential understanding--that vision shapes the future. Subsequently, realities created from visions, influences our daily lives, quality of life, and allows us to adapt and remain viable on this planet we can home and beyond.

Vision, is such a small word that can ignite the flames of creativity, innovation, change, and our future. A vision is an idea or image of things that could be, that only the mind creates. A vision can be the door that opens onto the infinite possibilities of the future.

Vision is the ability to see beyond the current reality; formulating and inventing what doesn't exist. Yet, a vision alone can't influence a single thing. People make visions a reality. And what makes a vision a reality? Drive, passion, focus, curiosity, and belief. A burning thought of "It could be." Even beyond these feelings and belief, there must be perseverance. There are many examples throughout history where people who had visions were laughed at, ridiculed, and ignored, who subsequently became the catalyst to monumental changes such as: Albert Einstein, Walt Disney, Bill Gates, Steven Spielberg, Henry Ford, Thomas Edison, and Abraham Lincoln. Their biographies are riddled with failures. Ultimately, the uniting thread throughout these extraordinarily lives, was knowledge that their vision was right and a strong desire to help the human condition; to make major changes in how we see and experience our world. Today, we consider them all great visionaries. Their visions considered higher possibilities which lead ultimately to a different and unique perspective. Their window on life was from the outlook of what could exist. Their vision encompassed the larger picture that reached far into the future. Their visions changed our lives and the world we live in.

A vision can be thought of in two ways: inspiration and prediction. It can be used to inspire one to make a dream a reality. It can also be used to predict future changes. But when creativity and intelligence merge in a vision, anything is possible and the irrational, becomes a reality. Innovation is also coupled by vision, followed by change. Steve Jobs concept for personal computers is a well-known example of how a vision ignited innovation, and changed how we live our lives.

Vision keeps us alive in this ever changing world. Vision allows us to adapt and remain competitive among the species who call planet earth home. Vision is what drives humans to find new homes within space and within our oceans. Vison is the drive for exploration.

Many of our future visionaries can be found within the gifted population. Yet, in the regular classroom, expression of creative thought must be anchored to curriculum specific expression. The opportunity for long sustaining exploration into a specific concept is limited. This unit will allow the gifted student an opportunity to express and pursue their unique thoughts and ideas and possibly develop a stronger sense of self, and explore the different avenues in which to express create thought (through engineering, science, technology, literature, design, and art) in their adult lives and career pursuits. Most importantly, by progressing through the unit lessons, of 1) Visionaries, Innovators, and Inventors, 2) Envisioning Dream Homes, 3) Designing Dream Homes, and 4) Realizing Vision Through Imagination and Fiction; students will understand that the world has a place for creative and innovative thinkers such as themselves.

B. Differentiation for Gifted Learners

Gifted students have learning needs that go beyond what is traditionally offered in the regular classroom. Therefore, it is important for them have differentiated learning experiences and opportunities to maximize their potential. This unit allows students to think in a conceptual manner and tackle a wider range of real and complex academic tasks that require participation in real world activities and completing real world challenges. Also, the unit is developed to expand the depth and quality of their student experiences with the concept of vision, while completing unit activities at an accelerated pace.

- **The content** within the unit is modified to provide challenging learning opportunities. Students will research different living environments in the future and create viable solutions that will help humans survive within that environment. The content will move at a faster pace allowing students to work at the level most comfortable for their abilities and is less repetitious. The lessons are created to allow students to focus exclusively on the essential understanding and utilize multiple thought processes. The concept approach helps organize content standards around broad ideas and helps to create opportunities for students to learn and use a wide variety of integrated and complex ideas. Some key concepts in the unit include; connections, knowledge, fantasy, exploration, perspective, communication, influence, numbers, scale, and shapes. The Common Core skills are addressed in the lessons and imbedded in the higher level math, reading, writing, researching, and presentation skills requirements.

- **The process** begins within each lesson with teacher-facilitated experiences to develop and review foundational skills and continues as students move toward increasing independence with researching, writing, creating, connecting, understanding, and presenting. Students will make generalizations of the concept of vision through researching and making connections between the lives of important 20th Century visionaries and exploring the important role fiction plays in creating future realities. To extend the concept understanding, students will question with increasing levels of complexity by studying current facts and future theories about human sustainability in different future living environments (space, ocean, on earth, another planet, and galaxy). Throughout all the lessons, students will focus on the higher levels of Bloom Taxonomy of analysis, synthesis, and evaluation, which will involve creating original work, using it to invent, design, plan, interpret data, verify, criticize, defend, present, judge ideas and information. This "thinking outside the box" and identifying complex problems will lead into students applying their creativity and innovation in the form of designing 24th Century homes that highlight their innovations, invention, or visions. Students can ask the question of "how does an architect design?" and experience the real-world challenges and problem solving complexities through a simulation experience. Finally, the reading and research materials used throughout each lesson will be varied and above grade level.

- **The product** for the unit is multi-layered and requires students to create large-scale, complex products which stretch their abilities and extend their knowledge. The final product, the creation of a 24th Century home, addresses realistic problems and can be presented to an audience of experts in various fields. Although there is one central product that communicates what's been learned in the unit, there are choices for how the central product is created and presented. Students can choose to create a real three dimensional model, CAD (Computer Aided Design), or a blueprint design. The presentation vehicles are varied. Student can opt to create a Powerpoint, Pod Cast, video or any other media choice. Students are able to collaborate with others or work independently.

The Learning Environment throughout the execution of the unit lessons is inviting; where students can learn how the concept of vision shapes and maintains life today and in the future. As well, students can work towards their full potential, explore themselves, stretch and apply their knowledge in an open and positive environment that encourages them to be risk-takers in new areas of thought and action, while conducting independent or collaborative study.

Goals and Outcomes

Content Goals and Outcomes

Goal 1: To understand how various 20th Century visionaries, innovators, and inventors shaped our current world and influence our daily lives, quality of living, and impact on the future.

A. Analyze, make inferences, and draw conclusions from text.
B. Apply concept related vocabulary to topic discussions, responses, and writing.
C. Provide evidence from the text to support their stance, opinions, and points of view.

Goal 2: To develop an awareness of environmental, cultural, atmospheric, and other factors that influence the types of homes people live in.

A. Investigate different styles of housing around the world.
B. Create and use graphic organizers to sort information, guide thinking, and to focus home design ideas.
C. Learn about the future trends in home design and building through research.
D. Use CAD (Computer Aided Design) programs to create model of home design.

Goal 3: Learn the value in the relationship between science fiction, technology, and visions of the future.

A. Understand that storytelling can help communicate dreams and visions.
B. Learn the role of science fiction in inspiring science reality.
C. Explore the various themes within the science fiction genre.
D. Know that the common themes within science fiction often reflect societal and technological issues experienced within the era they are written.
E. Understand that dreams, stories, and visions shape the future.

Process Goals and Outcomes

Goal 4: To synthesize and analyze how people make an impact on our lives through their visions, innovations, and inventions.

A. Make logical connections between ideas, facts, and inferences or more similar texts.
B. Evaluate the value of visions, inventions and innovations within societies.
C. Discover, express, record, and reflect on the lives and contributions of student chosen visionaries, inventors, and innovators as experienced through the writing process.
D. Work collaboratively in a group.

Goal 5: Use creativity and imagination to envision and design a home of the future.

A. Use analytical, critical, creative thinking, problem solving, and math skills to successfully adjust to multiple situations within a simulation.
B. Apply skills used in geometry, measurement, and computation to create a scale model.
C. Apply drafting, designing, and architectural planning skills to successfully complete simulation
D. Apply verbal communication skills and visual displays to summarize and enhance final project presentation

Goal 6: Explore text and formulate in-depth questions that contribute to further synthesizing information, and understanding of the concept of vision.

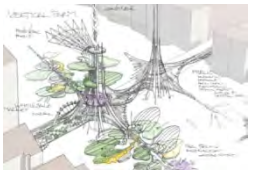
A. Identify evidence within multiple texts which supports an opinion on a topic.
B. Participate in and sustain with supporting evidence a discussion of a specific topic and concept.
C. Create a graphic organizer that explains a process.

Concept Goals and Outcomes

Goal 7: To understand how vision shapes the future.

A. Analyze the relationship between visions and world impact.
B. Predict the impact home designs have on the future.
C. Analyze how impact and influence determines vision.
D. Transfer knowledge to create a vision that creates a viable impact and influence on the future.

Assessment Plan



Throughout the unit, there will be opportunities for both formative and summative assessments.

Formative Assessments

The unit's *Engage and Connect* activities will continuously access students' prior knowledge and serve as a baseline for possible lesson adjustments. The objective of the formative assessments, which will take the form of teacher observations, class participation in discussions, and activities, will gauge students' development of concept knowledge, levels of understanding and connections of the essential questions, and multiple applications to various disciplines, curriculum skill objectives, and to their lives.

Feedback to Students

Students will receive immediate feedback from formative assessments while they are completing it. The teacher will act as facilitator during lessons and can conduct mini conferences to guide students when necessary.

Summative Assessment Overview

The summative assessment for this unit will be to create a home of the future in the 24th Century.

The summative assessment will be in the form of a performance task, and will be given to students at the beginning of the unit. Students will be encouraged to be creative. They will have a copy of the performance task rubric as well, to fully understand expectations and how the final product will be graded.

The performance task is broken down in the following manner:

Task 1

Students research (using online and other obtainable resources) different living environments to take into consideration when building future home.

Using research, students investigate and identify at least two problem that humans might encounter when considering colonization in that environment.

After identifying two problems, you must choose one problem to incorporate within your home design and a solution to the problem. The solution must be based on evidenced research or theories from what we know from today's science or science fiction.

Task 2

Students will create a scale drawing (extending to a 3-D model is an option) of the exterior and interior of their home.

Math formulas and calculations must be shown on the scale drawings that were actually used to determine the size represented on the scale.

Create a chart that highlights the homes unique features and technology.

Task 3

Use of computer (CAD) programs is required to showcase at least one unique room within the interior or the exterior of the home (an interior and exterior view is acceptable as well).

Task 4

Students will create a marketing promo piece which explains their vision and interest in creating this specific home. The promo piece will also include:

1. An explanation of the identified problem, how the problem was solved and how the new technology incorporated within or surrounding the home will benefit a wide scope of people who will be living in a specific home community and mankind as a whole.
2. The marketing promo will give an overview of the home design and highlight at least one innovative feature.
3. The promo can be in the form of a pod cast, powerpoint, video or any other media method that can be heard and seen by a specific audience.
4. The promo should be no longer than 10 minutes.

Summative Assessment

The rubric will be used for the summative assessment and will be distributed to students at the beginning of the unit, and discussed at that time to ensure clarification of expectations.

“Blueprint of the Future” Performance Task Rubric

Components	Does Not Meet Standard 1	Sometimes Meets Standard 2	Meets Standard 3	Exceeds Standard 4	Score
Brainstorming and solutions for futuristic homes	Students identify no reasonable, insightful possible design solutions/strategies to solve problems humans might encounter when considering colonization in a future living environment.	Students identify at least 1 reasonable, insightful possible design solutions/strategies to solve problems humans might encounter when considering colonization in a future living environment.	Students identify at least 2 reasonable, insightful possible design solutions/strategies to solve problems humans might encounter when considering colonization in a future living environment.	Students identify more than 2 reasonable, insightful possible design solutions/strategies to solve problems humans might encounter when considering colonization in a future living environment.	
Home Design	Home design does not adequately address the issues identified.	Home design adequately addresses the issues identified, but is not original.	Home design is original and adequately addresses the issues identified.	Students create an original, innovative and interesting design that adequately addresses the issues identified.	
Attention to detail, neatness, and math computations.	Many lines, corrections of errors, and/or features are not neatly done. Many features of the blueprint are NOT drawn to scale AND/OR there is no scale marker on the blueprint or computer model. All math calculations are inaccurate.	Most straight lines are ruler-drawn, most errors have been neatly corrected and most features are colored completely. Many features of the blueprint or computer model are NOT drawn to scale even though a scale is clearly indicated. Half of the math calculations are accurate.	All straight lines are ruler-drawn, most errors have been neatly corrected and most features are colored completely. Most features on blueprint or computer model are drawn to scale and the scale used is clearly indicated. Most math calculations are accurate.	All straight lines are ruler-drawn, all errors have been neatly corrected and all features are colored completely. All features on blueprint or computer model are drawn to scale and the scale used is clearly indicated. All of the math calculations are accurate.	
Presentation	Media used does not contribute to understanding of the topic. Use of multimedia and design elements is confusing or absent; message is confusing. Content and oral presentation is confusing.	Media used somewhat contributes to understanding of topic. Some effective use of multimedia and design elements. Use of graphics is limited; message is conveyed. Content and oral presentation somewhat understandable.	Media used mostly contributes to understanding of topic. Good combination of multimedia and other design elements. Graphics are attractive; adequately conveys message. Content and oral presentation mostly understandable.	Media used contributes to understanding of topic. Effective combination of multimedia and other design elements. Graphics effectively engage audience; accurately conveys message. Content and oral presentation readily understandable.	

Performance Task Products

Lesson Plans

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Caren Balde	1

MODEL	CONTENT AREA	GRADE LEVEL
Taba Concept Development	Language Arts	5

CONCEPTUAL LENS	LESSON TOPIC
Vision	Visionaries, Innovators, and Inventors,

LEARNING OBJECTIVES *(from State/Local Curriculum)*

1 RI.5.1: Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
1 RI.5.2: Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.
1RI.5.7: Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
1RI.5.9: Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

Lesson Connections: W. 5.2 Research writing
Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

THE ESSENTIAL UNDERSTANDING ***(What is the overarching idea students will understand as a result of this lesson?***	THE ESSENTIAL QUESTION ***(What question will be asked to lead students to "uncover" the Essential Understanding)***
Vision shapes the future	How does vision shape the future?

CONTENT KNOWLEDGE **(What factual information will students learn in this lesson?)**	PROCESS SKILLS **(What will students be able to do as a result of this lesson?)**
Students will: wLearn that the contributions and accomplishments of different 20th Century innovators and inventors influenced society and shaped the future. wAnalyze, make inferences, and draw conclusions from text. wApply concept related vocabulary to topic discussions, responses, and writing. wProvide evidence from text to support stance, opinions, and points of view. wLearn about specific visionaries, inventors, and innovators, through research writing. wUnderstand vocabulary such as: Pioneer Innovator inventor Visionary	Students will be able to: wSynthesize and make logical connections between ideas, facts, and inferences within a text and across two or more similar texts wSynthase and analyze how people make an impact on our lives through their visions, innovations, and inventions wEvaluate the value of visions, inventions and innovations within societies wDiscover, express, record, and reflect on the lives and contributions of student chosen visionaries, inventors/innovators as experienced through the writing process. wWork collaboratively in a group

GUIDING QUESTIONS
What questions will be asked to support instruction?
Include both "lesson plan level" questions as well as questions designed to guide students to the essential understanding

Pre-Lesson Questions:	During Lesson Questions:	Post Lesson Questions:
wWhat are some important inventions that have directly affected your life? wHow are being a visionary, inventor, and innovator similar? wWhat is the difference between a visionary, inventor, and innovator? w Name some famous visionaries, inventors, and innovators from the 20th century? w What would life be like without a vision?. w What words in the articles relate to or make the connection with the concept of vision? w What invention would you miss if it wasn't there? How would that impact your life? w How did visions, inventions, and visionaries change people's lives in the past and in the present? w What do the words pioneer, visionary, innovator, and innovator mean?	wHow are our lives impacted by visionaries, inventors, and inventions? w What important qualities make a person a visionary, innovator, or inventors? wWhat was the turning point that led to a vision transforming into a reality? wWhat information belongs together? Why? wWhat are you naming your groups? wWhat are some different ways to group the same information? wExplain why you chose these groups? wHow can you support these groupings with evidence? wWhat makes a vision powerful? wWhat drives the need to invent? w How can a vision change our world?	w What is the relationship between visionaries, innovators, and inventors? wIn what ways does vision shape the future? wExplain how Impact and influence determines vision? wWhat is the relationship between vision and world impact? wIs there any other areas in our world where vision affected culture and or the future? wIdentify and explain a social issue where a vision affected change? wIn what way have different visions shaped historical events?

DIFFERENTIATION
(Describe how the planned learning experience has been modified to meet the needs of gifted learners. Note: Modifications may be in one or more of the areas below. Only provide details for the area(s) that have been differentiated for this lesson.

Content	Process	Product	Learning Environment

are varied and above grade level.	studied through clustered standards that require higher-level thinking, access to multiple resources, and original research.		collaboration and various groupings, learn how the concept of vision shapes and maintains life today and in the future.

PLANNED LEARNING EXPERIENCES

(What will the teacher input? What will the students be asked to do? For clarity, please provide detailed instructions)

Engage and Connect

1. To activate prior knowledge on "vision", students create a "Vision" Wordle on http://www.wordle.net/create.

Discuss and use as baseline for initial instruction (activity the day before instruction).

2. Have students watch "Invention through Inspiration" https://www.youtube.com/watch?v=O6hQVtqzS3A. Discuss and brainstorm how visions ignite discovery. Students turn and talk to a partner for 1 minute. Share whole class and create anchor chart to refer back to throughout study (5-minutes).

Explore

1. Students watch https://www.youtube.com/watch?v=JB_wLI1FURw Steve Jobs', "My vision of the World" clip and discuss the following quotes: "*We started out to get a computer in the hands of everyday people, and we succeeded beyond our wildest dreams.*"-Steve Jobs and "Where there is no vision, there is no hope." –George Washington Carver (teacher facilitates/guides questioning to gauge student understanding of vision, dreams, discovery, impact, change, etc.).
2. Ask students: "think about a vision you have that will make a difference in your life and in the lives of others in the future." Students share their visions with a partner and write down their ideas on index cards. Students illustrate vision, invention, etc. on the back of index card to further share.
3. With index cards in hand, have students walk around room and regroup themselves according to their similar visions/inventions. After regroup, teacher questions as to what caused them to group themselves in that way, what common attributes do the groups share.
4. Students then work together to combine their vision elements to create a new invention, innovation, product, or procedure that will have an impact on their lives and the lives of others in the future. Also question, as to how similar visions in your group help with creating a new invention? Students share whole class. Teacher facilitates discussion (Day 1).

Listing

Students read articles on famous inventors George Washington Carver and Steve Jobs. Also, students read an article about a teen inventor. The articles are biographies that speak about the person as well as their dreams, visions, and inventions. The articles also focus on how these inventions impacted our lives and the world. While students read articles, either individually or in pairs, teacher Instructs students to make note of events in the inventor's lives that related to how individual visions shaped the way we live and the world around us. Students are to create a list of events, characteristics, inventions, industries, characteristics, that were influenced by these visions. When lists are completed, teacher will create a list chart (Day 2).

Possible List
Better inventions built from toy, computer, peanut
Found new uses for existing products
Curious about plants, flowers, and electronics
Curious about other uses for toys
Drive to help people
Smart
Inventions were less expensive
Affordable to many more people
Made the world smaller
Saved peoples' lives
Made peoples' lives simpler
Revolutionaries for their time (Apple, Ipod, Smartphone, peanut, crop rotations)
Visions came true
Overcame hardships and adversities
Kept on trying
Need in society sparked invention
Changed the way we communicate
Changed the way we use natural products
Revolutionized personal computer, mobile communication, animation, and music industries
Revolutionized food, textile, biochemistry, and agricultural industries

Explain

Students discuss, elaborate, and connect with the concept of how visions can become reality and shape our world and future. Students also connect real inventor experiences to their invention activity from the previous day. Propose question: What makes a vision powerful? What drives the need to invent? How can a vision change our world?

Grouping and Labeling

1. ***S***tudents in pairs or groups of up to 4 begin sorting the information into the specific listed categories with the following guidelines (project guidelines on Brightlink for students to refer back to): Create at least 4 different groups with at least 4

2. Students discuss the information they have gathered, compare, and agree on groupings. Teacher observes and guides group discussions (only if groups are having difficulty or disagreements are not solved) and asks the following questions: How is your idea/item different from another? What information can you put together because they are alike? What makes you think that way?
3. When students have finalized their groups, ask: How are you going to name your groups? Students once again work together to create group names based on common characteristics.

Possible Labels/Groupings

Personality/Character Traits	Invention/Innovation	Impact on society/world	Economic Impact
Curious about plants Curious about electronics Curious about new use for a toy Smart Overcame hardships and challenges Kept on trying Drive to help people Visions came true	Braille Printer Ipod IPad Apple Computer Smartphone Computer animation for movies Efficient computer platforms Peanut butter Crop rotation method Detergent Soap Diesel fuel Lotion Rubber Axel Grease Glue Paints Color dyes	Changed the way we use natural ingredients in products Changed the way we communicate with each other Communicate faster Saved millions around the world from starving Revolutionized personal computer, mobile communication, music, and computer animation industries Revolutionized food, textile, biochemistry, and agricultural industries	Inventions made products affordable to many people Invention will make Braille print communication affordable Reusable soil helped grow more than one crop within same soil. Created successful and popular food product Cost of many other products became cheaper Need in society sparked invention

Subsuming, Regrouping, Renaming

1. After initial groups have been formed, student will be asked to rearrange and sort information in completely new ways. Students have to create at least 3 different groups with different names. Once again, items can only be placed in one group.
2. Teacher asks leading question: If you shift your thinking away from the products and towards other aspects of vision, what new groups do you see? Teacher circulates around groups and interjects with the following guiding questions when necessary: What completely new ways can you find to group the items? Why did your grouping happen in this way? Which of the items in one group could go into another group? What are you seeing or noticing about the similarities and differences between each group that relates to vision? What patterns about vision are you beginning to see?

Possible Regrouping Labels/Groupings

Culture Change	Environmental Impact	Impact and Influence
Mobile Communication Personal Computer Peanut Butter Computer Animation for Movies Communicate faster Natural ingredients in many products Changed the way we communicate with each other	Reusable soil helped grow more than one crop within same soil. Paints Detergent Color Dyes Apple Computer Soap	Crop rotation method Efficient computer platforms Cost of many other products became cheaper Need in society sparked invention Invention will make Braille print communication affordable Drive to help people

Generalization: As a class, guide question that focuses on student understanding of vision as a concept: Based on our original list, the groups we've created, and the different ways we've thought about the groups; what would you conclude about vision?

Class Generalizations: Without vision, life dies. Vision changes and maintains life. Without vision you would not have a future. Vision makes the path to the future more clear.

Elaborate

Ask students to extend and elaborate on their understanding by questioning: What is the relationship between vision and world impact? Is there any other area in our world where vision affected culture and or the future? Identify and explain a social issue where a vision affected change? In what way have visions shaped historical events?

Evaluate:

Future Home Performance Task

The year is 2350 and the Inter-Galactic World's Fair is coming soon to the planet Baldanium! Your goal is to create a dynamic home design which will be the centerpiece for the Galaxyland Home Exhibit. Your design will be a marvel for all the galaxies to see! As an architect for Global United, Inc. a corporation that designs and constructs homes and communities in unique and challenging environments, you've been given the opportunity to not only showcase and exhibit your design but present to the IGAC (Inter-Galactic Architect Consortium) and the Inter-Galactic Ruling Federation for immediate home construction consideration!

As a star architect, the environment in which you build your home is of your choosing. Your home could be designed for living on another planet, on earth, in space, within the ocean…anywhere. Yet, as you investigate where your will construct your home, you will need to identify and solve at least one looming problem that might hinder human habitation in that environment. The choice of problems could be environmental, geographical, technological, energy-efficiency, cultural, natural resources, or personal comfort and convenience. The solution to the problem should be innovative and reflect your vision that will benefit the entire community and ultimately benefit and support mankind's colonization of new living spaces.

Your home design tasks are as follows:

1. Research (using online and other obtainable resources) different environments where you are considering building your home.
2. Using your research, investigate and identify at least two problems that humans might encounter when considering colonization in that environment.
3. After identifying two problems, you must incorporate within your home design a solution one of the problems. The solution must be based on evidenced research or theories from what we know from today's science or science fiction.
4. You will create a scale drawing (extend to a 3-D model if time permits) of the exterior and interior of your home. Provide the math formulas and calculations that you used to determine the actual size represented on the scale.
5. Create a chart that highlights your homes unique features and technology.
6. Use computer (CAD) programs to showcase at least one unique room or the exterior of your home.
7. Lastly, you will create a marketing promo piece which will explain your vision that sparked your interest to create this home. The promo piece will also include an explanation of the problem you identified, how you solved that problem and how the new technology incorporated within or surrounding the home will benefit a wide scope of people who will be living in your home community and mankind. Additionally, the marketing promo will give an overview of the home design and highlight at least one innovative feature. The marketing promo can be in the form of a pod cast, powerpoint, video or any other media method that can be heard and seen by the people who walk-through the Galaxyland Exhibit. The marketing promo will serve as your presentation to the Inter-Galactic Architect Consortium and the Inter-Galactic Ruling Federation. Finally, the promo should be no longer than 10 minutes.

Extension:

Students work in pairs (independent if student preference) and talk about what kinds of visions, innovations, and inventions, will be needed in the future. Students consider the following questions: What future problem does this vision solve? What will this innovation transform? What will this invention do?

Next, have each pair imagine a completely new vision, innovation, or invention that would help meet the needs of the 21st century people.

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Caren Balde	2

MODEL	CONTENT AREA	GRADE LEVEL
Questioning	Language Arts	5

CONCEPTUAL LENS	LESSON TOPIC
Vision	Envisioning Homes of the Future

LEARNING OBJECTIVES *(from State/Local Curriculum)*

Lesson Connections: Reading
1 RI.5.1: Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
1RI.5.7: Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
1RI.5.9: Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

Lesson Connections: writing
1 W.5.7: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

Lesson Connections: Social Studies
1 S.1.6: Explain how people of the United States and other countries adapt to, modify, and use their physical environment.
1 S.6.3: Forecast how technology can be managed to have the greatest number of people enjoy the benefits.
1 S.6.6: Predict future trends in technology management that will benefit the greatest number of people.

THE ESSENTIAL UNDERSTANDING ***(What is the overarching idea students will understand as a result of this lesson?***	THE ESSENTIAL QUESTION ***(What question will be asked to lead students to "uncover" the Essential Understanding)***
Vision shapes the future	How does vision shape the future?

CONTENT KNOWLEDGE **(What factual information will students learn in this lesson?)**	PROCESS SKILLS **(What will students be able to do as a result of this lesson?)**
Students will: wInvestigate different styles of housing around the world. wDevelop awareness of environmental, cultural, atmospheric, and other factors that influence the types of homes people live in. wCreate and use graphic organizers to sort information, guide thinking and to focus their home design ideas. wLearn about the future trends in home design and building through short research. wUse CAD (Computer-Aided Design) programs to create model of home design.	Students will be able to: wSynthesize and make logical connections between environmental, cultural, atmospheric, and other factors that affect home building and human need. wUse analytical, critical, creative thinking and problem solving skills to research, and create a futuristic home. wUse cause and effect relationships to analyze and solve potential problems encountered throughout the creative design process. wDraw conclusions supported by text wUse CAD programs with fluency to create 2D-3D images wWork collaboratively in a group

GUIDING QUESTIONS
What questions will be asked to support instruction?
Include both "lesson plan level" questions as well as questions designed to guide students to the essential understanding

Pre-Lesson Questions:	During Lesson Questions:	Post Lesson Questions:
wWhat does it mean to envision something? wWhat is the purpose of a home? w Why is it important to have a home? w What are some things you and your family do at home? w Where (what rooms) do you do these things? w What words, pictures, and videos, you reviewed today connect with the concept of vision? w What do you know about houses in other parts of the world? w How might some people's homes be different from those where we live? w What materials do you think were used to build these homes? w What do the pictures tell us about people's lifestyles? (Activities, technology, etc.) w Will people who live in different geographic regions of the world have different needs for their homes? w Will people who want to live in space and the ocean have different needs for their homes?	wHow can you predict the housing needs of people in the future? w What important factors will influence home building, on earth? In the ocean? In space? On another planet? Elaborate. wWhat environmental, structural, atmospheric, or material problems will you need to solve in order to make your vision feasible? wHas your research shown that scientists are working on the problems you've identified? Show evidence from your readings to support your answer. wIdentify and explain a common theme you have identified in watching the video clips, pictures, and readings? (Vision shapes the future) wExplain how the mind map (graphic organizer) has helped you create/shape your vision? wWhat do you see as future living needs of humans in different environments that are not living needs now?	w Your future home was envisioned and created for what purpose? Elaborate. w In your vision/design of a future home, what possible benefit(s) to humans does it serve? (What problem does it solve?) wWhat new or different materials did you create, use or revise to help with the construction of your home? wWhat do you see as future living needs of humans in different environments that are not living needs now? wIn what way can you modify your vision to meet the needs of people in the future?" wHow does vision helps shape the future? wHow does the demands of society effect and shape our visions? wHow have you created new and unusual ways to use different rooms in your home? wWill each room now have a totally different purpose? Will the needs of humans dictate new rooms? What are the names of the new rooms that you have created? Elaborate. wWhat does your vision tell us about people's lifestyles of the future? Analyze.

same materials? Support your reasoning.		and shape our visions?

DIFFERENTIATION

(Describe how the planned learning experience has been modified to meet the needs of gifted learners. Note: Modifications may be in one or more of the areas below. Only provide details for the area(s) that have been differentiated for this lesson.

Content	Process	Product	Learning Environment
The readings and research content for this lesson are varied and above grade level.	The concept of vision will be studied through research application that requires higher-level, creative, and problem solving thinking, to visualize, formulate, and create a futuristic home design.	Students will use CAD or other design programs to create 2-D or 3-D models of their vision of a future home.	Students through analysis, collaboration, and creative exploration learn how the concept of vision transforms, enhances, and sustains and maintains human life in the future.

PLANNED LEARNING EXPERIENCES

(What will the teacher input? What will the students be asked to do? For clarity, please provide detailed instructions)

Multiple Day Lesson

Engage and Connect

3. As students enter the classroom, the music to Disney's "It's a Great Big Beautiful Tomorrow" will be playing along with a flash Power Point of futuristic sketches of homes on earth, in space, the ocean, and other planets (Insert future slideshow link here).
4. Have students review the words to the song. Turn and talk to partner and answer the question "What does it mean to envision something?" Discuss and create an anchor chart students can refer back to throughout study.
5. Have students watch selected clips from Disney's ride "Carousal of Progress" https://www.youtube.com/watch?v=CmrSiJTMf7s. As questions "How did each new home on the carousal fulfil a vision for the future?" Discuss.
6. Ask students to think about a home they'd like to live in, in the future. Their favorite room in the home. Why it is their favorite room? Give students paper and ask them to draw a picture of the outside of their house. Next, have students draw a floorplan of the inside of their house. Students must label each room. Ask "why is it important to have a home?" "What are the purposes of our homes? "What are some things that you and your family do in your home?" "Thinking about your home, in 10 years, what do you envision creating to make it more functional for your everyday life?" Students will answer question by drawing their idea on the home floorplan or exterior drawing. Share and discuss. Ask, "What technology, theories, facts, etc. exists today that could help make this vision come true?"
7. Have students watch "My Vision of the World" video https://www.youtube.com/watch?v=JB_wLI1FURw. Discuss and brainstorm and ask question, "How does vision ignite discovery?" Students turn and talk to a partner for 1 minute. Discuss their visions.

Explore

1. Ask students the following, "What do you know about homes in other parts of the world? How might some people's homes be different from those we live in?" After students respond, show them slideshows of homes from around the world. Discuss.
   https://hagafoto.jp/templates/hagahaga/topics/house/house-e.html
   http://www.slideshare.net/tikha12/different-kinds-of-houses-around-the-world
2. Question, "In thinking about different homes from around the world, what factors might influence the type of home that is built and what's inside?" Students are grouped according to geographical interest and will conduct short research of a variety of homes around the world (if students are interested in space, ocean, or other planets, they will research those factors). Students in their research will consider how geographic, environmental, migration patterns, and cultural factors influence the way the homes are designed, the building materials used in construction, and what the homes look like inside (see attached list of research materials). Bring students back together to discuss and in jigsaw fashion, share what they have learned in their research.
3. Students are then asked to think about the future home they are to design. "Think about a vision you have that will make a difference in your life and in the lives of others in the future." "What form will that vision take shape in your future home design?" "Where will your future home be located?" Students will be grouped according to similar locations on; earth, ocean, space, or another planet. Next, students will create a graphic organizer; from the following site:
   http://www.inspiration.com/visual-learning/mind-mapping
4.  Facilitate and have students consider as they are completing the organizer, "What important factors will influence home building, on earth, in the ocean, in space, on another planet in the future, based on information learned from your research?" "Are you creating a home for all humanity, a specific group of humans? What environmental, structural, atmospheric, or material problems will you need to solve in order to make your vision feasible?"
5. **Guest Speaker**-Civil/Structural engineer will speak to students on future building trends, ideas, technology, various factors to consider when constructing in different environments, answer technical questions, help students shape their concept on graphic organizer, and demonstrate different CAD (Computer-Aided Design) programs used to design structures.
6. Conclude with prompting with During Lesson Questions to solidify connection between concept of vision and reality of home building. Also facilitate a discussion based on following questions: "Has anyone's vision changed after today's research, discussion, exploration? If so, how? What problems did you encounter when applying your vision to the constructs of today? What alternatives have you created to tackle these obstacles?"

Explain

Facilitate and guide students to understand that visions of tomorrow are seen through the eyes of today (refer back to Carousal of Progress video). Something from today's world, society, people, knowledge, demand, need, thoughts, etc. must be seen, thought about, questioned, and explored. A problem must be solved, a need met. The vision is seeing something in these factors that no one else has before. Students discuss, elaborate, and connect with the concept of how visions can become reality and shape the future. Connect further with Steve Job's/Apple's design Philosophy (Think Differently/follow your vision).
https://www.youtube.com/watch?v=_rJcbWsvuSM
https://www.youtube.com/watch?v=WoDVEveCtOA
https://www.youtube.com/watch?v=vnvDRaS5lqw
After watching below clips, ask students, "what is the main theme (message) that you understand from watching these clips? Further ask, "What impact did Steve Job's vision have on changing our everyday lives?" "Will this vision continue to shape our future? How so? Explain."

Elaborate

1. Working from information gathered from previous day, students will now focus on creating their vision of a home in the future.
2. Students will watch various video clips on future home ideas from current media, technology and designs trends.
   "Life in the Future: Year 6000 and Beyond" https://www.youtube.com/watch?v=5tQgJD9AfMU
   Microsoft's Future Home https://www.youtube.com/watch?v=9V_0xDUg0h0
   European Future Home https://www.youtube.com/watch?v=9DJr8QwgLEA
3. Next, Students will read opinion pieces about futuristic homes and watch slide shares of future home designs. Question: Identify and explain a common theme you have identified in watching the video clips and readings (Vision shapes the future). Also,
   Has your research shown that scientists are working on the problems you've identified as an obstacle for building your future home? Show evidence from your readings to support your answer. Elaborate and discuss whole class.
4. Students begin designing their homes and once again use a graphic organizer:

	Describe or draw	**What is it made of?**	**Where are the materials from?(could be made up)**	**Why would we use this? (Shape, strength, etc.)**
Roof				
Walls				
Interior/Exterior				
Other interesting features				
What is the technology that will be used?				

5. **Guest Speaker**-Durham Public Schools Middle School STEM technology teacher will visit classroom to help students translate their future home designs from paper to computer graphics using Google Sketch or CAD program.
6. Students will share with class their designs, discuss important features within their designs, and work with other students to solve problems associated with designs.
7. Ask post-lesson questions:
   a) What do you see as future living needs of humans in different environments that are not living needs now?
   b) In what way can you modify your vision to meet the needs of people in the future?"
   c) How does the demands of society effect and shape our visions?
   d) How does vision helps shape the future?

Evaluate:

Future Home Performance Task

The Home of the Future is Here Now! See the Galaxyland Exhibit at the upcoming Inter-Galactic World's Fair!

The year is 2350 and the Inter-Galactic World's Fair is coming soon to the planet Baldanium! Your goal is to create a dynamic home design which will be the centerpiece for the Galaxyland Home Exhibit. Your design will be a marvel for all the galaxies to see! As an architect for Global United, Inc. a corporation that designs and constructs homes and communities in unique and challenging environments, you've been given the opportunity to not only showcase and exhibit your design but present to the IGAC (Inter-Galactic Architect Consortium) and the Inter-Galactic Ruling Federation for immediate home construction consideration!

As a star architect, the environment in which you build your home is of your choosing. Your home could be designed for living on another planet, on earth, in space, within the ocean…anywhere. Yet, as you investigate where your will construct your home, you will need to identify and solve at least one looming problem that might hinder human habitation in that environment. The choice of problems could be environmental, geographical, technological, energy-efficiency, cultural, natural resources, or personal comfort and convenience. The solution to the problem should be innovative and reflect your vision that will benefit the entire community and ultimately benefit and support mankind's colonization of new living spaces.

Your home design tasks are as follows:

1. Research (using online and other obtainable resources) different environments where you are considering building your home.
2. Using your research, investigate and identify at least two problems that humans might encounter when considering colonization in that environment.
3. After identifying the problems, you must incorporate within your home design a solution to one of the problem. The solution must be based on evidenced research or theories from what we know from today's science or science fiction.
4. You will create a scale drawing (extend to a 3-D model if time permits) of the exterior and interior of your home. Provide the math formulas and calculations that you used to determine the actual size represented on the scale.
5. Create a chart that highlights your homes unique features and technology.
6. Use computer (CAD) programs to showcase at least one unique room or the exterior of your home.
7. Lastly, you will create a marketing promo piece which will explain your vision that sparked your interest to create this home. The promo piece will also include an explanation of the problem you identified, how you solved that problem and how the new technology incorporated within or surrounding the home will benefit a wide scope of people who will be living in your home community and mankind. Additionally, the marketing promo will give an overview of the home design and highlight at least one innovative feature. The marketing promo can be in the form of a pod cast, powerpoint, video or any other media method that can be heard and seen by the people who walk-through the Galaxyland Exhibit. The marketing promo will serve as your presentation to the Inter-Galactic Architect Consortium and the Inter-Galactic Ruling Federation. Finally, the promo should be no longer than 10 minutes.

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Caren Balde	3

MODEL	CONTENT AREA	GRADE LEVEL
Simulation	Math	5

CONCEPTUAL LENS	LESSON TOPIC
Vision	Designing Dream Homes

LEARNING OBJECTIVES *(from State/Local Curriculum)*

1 5.NBT.B.5: Fluently multiply multi-digit whole numbers using standard algorithms.
15.NBT.B.6: Find whole-number quotients of numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.
15.NBT.B.7: Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
15.G.B.3: Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.
1SL.5.4.5: Present topic, text, or opinion, sequencing ideas logically, using appropriate facts, descriptive details, and visual displays to support main ideas or themes; speak clearly at an understandable pace.

THE ESSENTIAL UNDERSTANDING ***(What is the overarching idea students will understand as a result of this lesson?***	THE ESSENTIAL QUESTION ***(What question will be asked to lead students to "uncover" the Essential Understanding)***
Vision Shapes the Future	How Does Vision Shape the Future?

CONTENT KNOWLEDGE **(What factual information will students learn in this lesson?)**	PROCESS SKILLS **(What will students be able to do as a result of this lesson?)**
Students will: wLearn that through an architect, a structural vision becomes a reality. wUnderstand the role of an architect in the design and construction process of a home. wKnow that an architect's responsibility is to integrate a client's specific dream with their (architect's) universal vision. wKnow what a simulation is by completing tasks that might be encountered in real-life situations. wKnow that math computation skills can be applied to real-life situations. wKnow what a floor plan is. wUnderstand that a graphic organizer (budget sheet) can be used to sort information, guide thinking, and focus their home design options and expenses. wUnderstand design specific vocabulary such as: scale model budget client floor plan cross-section	Students will be able to: wUse creativity and imagination to envision and design a home. wUse analytical, critical, creative thinking, problem solving, and math skills to successfully adjust to multiple situations within a simulation. wApply skills used in geometry, measurement, and computation to create a scale model. wApply drafting, designing, and architectural planning skills to successfully complete simulation. wApply budgeting and calculating skills to complete home design within given budget. wWork within a cooperative group wApply verbal communication skills and visual displays to summarize and enhance final project presentation.

GUIDING QUESTIONS

What questions will be asked to support instruction?
Include both "lesson plan level" questions as well as questions designed to guide students to the essential understanding

Pre-Lesson Questions:	During Lesson Questions:	Post Lesson Questions:
wWhat is the difference between a vision and a dream? wHow can an architect's vision transform the dreams of others into a reality that helps many? wWhat skills do architects need to have in order to do their job? wHow can you represent your dream home vision on paper so I can see it? wWhat is the role of an architect? wHow are 2 dimensional figures used to bring dreams and visions to life? w What does scale mean? w What is a cross-section? w What math operations and equations will y0u use to help represent scale? wWhat is a budget? Is it a guideline to help you organize your construction materials and costs? w What is role playing? w What would help you organize your	wHow do architects shape our day to day living? wHow do architects shape our environment? wIf each square on this 1 inch grid represented 3 feet, what are the actual dimensions of this room? House? Floor? wWhat do you think will happen during the simulation? wwhat impact would the environment have on the development of the home you envision? wHow would a change in environment alter your perception of the vision/dream? wHow would you solve problems that might arrive in the course of designing? wHow many different ways can you think of to solve this problem? wHow is the clients dream impacting your designs and the future you envision? wIn what way does your home design	wHow does vision shape the future? wExplain the impact does your home design have on the future? wAnalyze the design process. What aspects of the process help connect visions and dreams and shape the future? wWhat is the relationship between visions and dreams? wBy taking into consideration new ideas, how might your vision change? wWhat are your thoughts and opinions about your simulation experience? wHow else could you combine these same elements in a different environment that would not change your vision and dream?

w What is a client?	encounter in that space? w How are your designs combining the dreams of your client and your overall vision? wHow do architectural designs successfully blend visions and dreams?	

DIFFERENTIATION

(Describe how the planned learning experience has been modified to meet the needs of gifted learners. Note: Modifications may be in one or more of the areas below. Only provide details for the area(s) that have been differentiated for this lesson.

Content	Process	Product	Learning Environment
	The concept of vision will be studied by applying higher level thinking, computation, and problem solving skills to complete a multi-tasked simulation.		Students through analysis and collaboration will understand how vision impacts dreams and shape the future.

PLANNED LEARNING EXPERIENCES

(What will the teacher input? What will the students be asked to do? For clarity, please provide detailed instructions)

Engage and Connect

1. When students enter classroom, project on Brightlink futuristic picture (See picture on last page of lesson plan). Have students examine the picture closely in silence. After 3 minutes, bring class together for a discussion about the picture. Begin facilitating a discussion about the picture by asking the following series of questions :
   - After looking at and reflecting on this picture, what do you think is happening in this picture?
   - What do you see that makes you say that?
   - What more can we find within the picture?
   - What elements in the picture make you say that?
   - What other interpretations can we see in the picture?

2. Guide students to focus on the picture that leads to discussion of the future, where homes are built on the ocean, due to possible crowding on land. The picture represents a dream/vision the artist has of the future. Further ask students to find the relationship between the artists' dream and his vision within the picture. Also, discuss what they can imagine from the picture what is inside the living structure (features like a Smart Home, futuristic home features for personal comfort and ease, self-contained, efficient home, etc.). Again, asking some of the above questions to illicit further reflection and response.

3. Create anchor chart that has headings; Helps Others….Helps Me…..Helps Both. Review chart and explain that features only listed in the "Helps Me" column, could be considered dreams. The "Helps Others" column is the spark and the "Helps Both" column can be considered the vision. Ask pre-lesson question: What is the difference between a vision and a dream? The difference is that a vision always impacts and improves the lives of others, and a dream focuses on what the dreamer will gain from it (self-focused). Further explain to students that visions impact dreams and spark the desire to create something new, beautiful, functional, and exciting for people.
   Next have students think about how buildings, homes, cities, or structures are designed and built. Turn and talk to partner and answer question. Guide students to critically think about the process, what and who is involved in the process. Create anchor chart to record answers and discuss at the end of lesson/activity.

4. Ask students: "What is an architect?" "What is the role of an architect in the building process?" "What skills does an architect need to have to do their job?" Students watch "What is an Architect?" https://www.youtube.com/watch?v=ImTTW94ZicM and https://www.youtube.com/watch?v=Uloc1iW-pgc and https://www.youtube.com/watch?v=k7V_zcwYNMc Ensure that students write down any unknown facts, information, ideas that they learned from the video clips. Discuss new information at the end of video viewing. Ask other pre-lesson questions and discuss.

5. Propose question of "How do architectural designs successfully blend visions and dreams?" Once again students turn and talk to partner and discuss. Add answers to a new anchor chart (Refer back to this chart as an assessment piece at end of simulation).

Explore

1. State that architects make drawings of their designs that represent structures. These drawings are called scale drawings.

2. Give each group of 4 students a cut in half cabbage and a cut-out of a 3 x 5 window on card stock paper. Explain that students are to pretend that the cabbage is a house cut in half. The insides of the cabbage represent the details of the inside of the house. Architects draw in "cross-section" as it would be impossible to draw and represent what is inside the house with the roof on! Have students then take the cut-out and place on top of a section of cabbage. Ask students "with just the space you have within your window, how are you going to represent that pattern on the cabbage? How is the pattern the same as you move the window around? What patterns will you chose to represent? After 10 minutes, have groups show their cross section patterns. Discuss as to how they completed tasks.

3. Further explain that architectural drawings use exact measurements to show how the finished design is to look (show on bright Link what a model plan looks like). On the paper model, they use scale. When discussing scale, we mean that architects set up a system where one small measurement on the paper (like 1 inch) represents a much larger measurement in a real building (like 3 feet). Model how using geometrical shapes (quadrilateral shapes) are used to represent rooms and objects on the grid. Further model how this is drawn. Next, model how a scale drawing is like a map. It tells us where things are located. It also must have a map key with symbols so we can know what each object in the room represents (continue to point out various symbols on the scale model). Students turn and talk to their partner and answer the question, "If each square on this 1 inch grid represents 3 feet, what is the measurement of this room? Floor?

4. Next, give students the task of creating their own architectural symbols that they will use on their own scale drawing. Then, distribute 1 inch grid paper. As well, give groups pictures of various interiors of houses and other structural buildings. Students are to select one picture and use along with, grid paper and symbols to create a cross section scale model of that room. Share whole class when completed.

Explain

Facilitate and guide students to understand that architects through their visions impact dreams of others in the form of designing buildings that not only focus on a personal dream, but weaving that dream into a vision that impacts and improves the lives of many. Architects study math, science, and art to help them make their design visions a reality. Architects envision buildings and use materials that will survive the environment of where the structure will be built. Architects also decide the exact measurements for each part of the building/structure to make sure that everything will fit together. Architects also decide how much of each building material to buy. Architects must also think about the people who will live or work in that building and the buildings purpose and function. They must also make the building beautiful. To do this, the architect will think about decorations, patterns and materials that will look beautiful to the people who use the building and see it from both the inside and the outside. To share their plan for the building, architects make many drawings on paper and sometimes make small models out of cardboard so others can physically see their vision. The architect will then show their design and models to the people who will use the building (the client). Architects are also problem solvers. Finally, construction workers use the scale model plans and use real materials such as metal, wood, plaster, and glass to make the building. Also, construction workers use the scale model plans as a map or guide to follow the architects directions. Therefore, without the architects vision, nothing would be built!

Elaborate

- Discuss with students what a simulation is (a way for students to experience/role-play a real world situation). This simulation will take place within 60 minute period.
- Have students work in groups of 2 or 3 (which will form their architectural group) and introduce the simulation. Let students know that they will part of an architectural team. The team will be presented with and asked to solve problems that will arise during the simulation. Students will be given specific simulation information; questions and situations that will help them begin and move throughout the simulation. Students will determine what roles they will play and the distribution of work tasks.
- The groups will critically think as they find solutions to the various questions and challenges encountered in the simulation. After an hour of working together, the groups will present their solutions and designs to the teacher. Teacher will serve as "client" the teams present their work to. (PLEASE SEE SUPPORTING DOCUMENTS FOR ACTUAL SIMULATION)

After Simulation ask Post Lesson Questions

- Analyze the design process. What aspects of the process help connect visions and dreams?
- Explain the impact does your home design have on the future?
- What is the relationship between visions and dreams?
- If you were to take new ideas into consideration, how might your vision change?
- What are your thoughts and opinions about your simulation experience?
- How else could you combine these same elements in a different environment that would not change your vision and dream?
- How do shape the future?

Evaluation

Future Home Performance Task

The Home of the Future is Here Now! See the Galaxyland Exhibit at the upcoming Inter-Galactic World's Fair!

The year is 2350 and the Inter-Galactic World's Fair is coming soon to the planet Baldanium! Your goal is to create a dynamic home design which will be the centerpiece for the Galaxyland Home Exhibit. Your design will be a marvel for all the galaxies to see! As an architect for Global United, Inc. a corporation that designs and constructs homes and communities in unique and challenging environments, you've been given the opportunity to not only showcase and exhibit your design but present to the IGAC (Inter-Galactic Architect Consortium) and the Inter-Galactic Ruling Federation for immediate home construction consideration!

As a star architect, the environment in which you build your home is of your choosing. Your home could be designed for living on another planet, on earth, in space, within the ocean…anywhere. Yet, as you investigate where your will construct your home, you will need to identify and solve at least one looming problem that might hinder human habitation in that environment. The choice of problems could be environmental, geographical, technological, energy-efficiency, cultural, natural resources, or personal comfort and convenience. The solution to the problem should be innovative and reflect your vision that will benefit the entire community and ultimately benefit and support mankind's colonization of new living spaces.

Your home design tasks are as follows:

1. Research (using online and other obtainable resources) different environments where you are considering building your home.
2. Using your research, investigate and identify at least two problems humans might encounter when considering colonization in that environment.
3. After identifying two problems, you must incorporate within your home design a solution to one of the problem. The solution must be based on evidenced research or theories from what we know from today's science or science fiction.
4. You will create a scale drawing (extend to a 3-D model if time permits) of the exterior and interior of your home. Provide the math formulas and calculations that you used to determine the actual size represented on the scale.
5. Create a chart that highlights your homes unique features and technology.
6. Use computer (CAD) programs to showcase at least one unique room or the exterior of your home.
7. Lastly, you will create a marketing promo piece which will explain your vision that sparked your interest to create this home. The promo piece will also include an explanation of the problem you identified, how you solved that problem and how the new technology incorporated within or surrounding the home will benefit a wide scope of people who will be living in your home community and mankind. Additionally, the marketing promo will give an overview of the home design and highlight at least one innovative feature. The marketing promo can be in the form of a pod cast, powerpoint, video or any other media method that can be heard and seen by the people who walk-through the Galaxyland Exhibit. The marketing promo will serve as your presentation to the Inter-Galactic Architect Consortium and the Inter-Galactic Ruling Federation. Finally, the promo should be no longer than 10 minutes.

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Caren Balde	4

MODEL	CONTENT AREA	GRADE LEVEL
Socratic Seminar	ELA	5th

CONCEPTUAL LENS	LESSON TOPIC
Vision	Realizing Vision Through Fiction

LEARNING OBJECTIVES *(from State/Local Curriculum)*

1 RI.5.1: Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
1 RI.5.2: Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text
1 RI.5.3: Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text
1 W.5.3: Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
1 RI.5.3a: Orient the reader by establishing a situation and introducing a narrator and/or characters; organize event sequence that unfolds naturally
1 SL.5.1.a: Come to discussions prepared; having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion
1 SL.5.1.b: Follow agreed-upon rules for discussions and carry out assigned roles.
1 SL.5.1.c: Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.

THE ESSENTIAL UNDERSTANDING ***(What is the overarching idea students will understand as a result of this lesson?***	THE ESSENTIAL QUESTION ***(What question will be asked to lead students to "uncover" the Essential Understanding)***
Vision Shapes the Future	How Does Vision Shape the Future?

CONTENT KNOWLEDGE **(What factual information will students learn in this lesson?)**	PROCESS SKILLS **(What will students be able to do as a result of this lesson?)**
Students will know: wThat storytelling can help communicate dreams and visions wThe role of science fiction in inspiring science reality wThe value in the relationship between science fiction, technology, and visions of the future wApplicable meaning of vocabulary words: Imagination Science fiction Innovation Dream Vision wThe common themes within the science fiction genre wThat common themes within science fiction often reflect societal and technological issues experienced within the era they are written. wThat dreams, stories, and visions shape the future	Students will be able to: wRead and analyze informational texts wQuote from text to support opinion/stance wMake inferences from text wIdentify evidence within multiple text which supports opinion on a topic w Find a theme within text w Explore text and formulate in depth questions that contributes to further synthesizing information, and understanding of the concept w Work collaboratively in small group w Participate in and sustain with supporting evidence discussion of specific topic and concept w Create a graphic organizer that explains a process

GUIDING QUESTIONS

What questions will be asked to support instruction?
Include both "lesson plan level" questions as well as questions designed to guide students to the essential understanding

Pre-Lesson Questions:	During Lesson Questions:	Post Lesson Questions:
wHow can storytelling help communicate a vision? wWhat is the definition of imagination? wWhat do you know about the genre of science fiction? wWhat are some science fiction novels, movies, videos or stories that you've experienced? wWhat makes these stories appealing to you? wWhat are some common themes in science fiction? wWhat does it mean to "use our imagination"? wHow can scientists use storytelling to help them in their research?	wHow does science fiction help develop visions? wHow does fiction influence reality? wHow do dreams spark visions? wWhat makes humans continually push the boundaries of knowledge? wWhat is the difference between a vision and a dream? wHow can a vision move from fiction to reality? wWhat processes do people use to envision and define the future? wHow much influence do the visions expressed in science fiction influence our visions of the future?	wHow does vision shape the future? wHow does fiction give visions substance and move them towards reality? Elaborate. wExplain how your short story communicates your vision of a futuristic home? wHow did participating in the Socratic Seminar help further your understanding of the role vision has in transforming reality? wBased on the information we've discovered, what would be the impact on our reality and society if we were limited in our ways to express our visions? wHow do scientists and science fiction writers transform reality through imagination and vision?

DIFFERENTIATION

(Describe how the planned learning experience has been modified to meet the needs of gifted learners. Note: Modifications may be in one or more of the areas below. Only provide details for the area(s) that have been differentiated for this lesson.

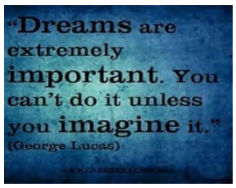
The readings for this lesson are varied and above grade level.	Through the Socratic Seminar format, students will formulate their own questions and facilitate their own discussions to gain deeper understanding of the concept "vision".	Students create their own narrative story that allows them to use their imagination to communicate their vision of a future home in the year 2350.	Students through questioning, analysis, collaboration, and discussion, learn how the concept of vision shapes the future.

PLANNED LEARNING EXPERIENCES

(What will the teacher input? What will the students be asked to do? For clarity, please provide detailed instructions)

Engage and Connect

1. When students enter the classroom, project below George Lucas quote on the Brightlink. Ask students to think about the quote. Have students write down what they think the quote means. Guide students to think about the way George Lucas expressed his dream (through the Star War movies). How did he use his imagination to create a possible future (through storytelling)? Could George Lucas' vision of the future as depicted in Star Wars come true? How do you think his dream of making these movies became a vision and then a reality? Discuss.



Ask pre-lesson questions:

- How can scientists use storytelling to help them in their research?
- What is the definition of imagination?
- What do you know about the genre of science fiction?
- What makes these stories appealing to you?
- What are some common themes in science fiction?

2. In carousal formation, place poster size paper around the room with the above questions placed as headings on each sheet.
   Give each student six post-its and have them write the answer to each question on the post-its. Next, students place their answers to the questions on the appropriate poster paper. Teacher begins reading the responses on the post-its and guides discussion to find commonalities in the responses and identifying reoccurring themes. Discuss responses on post-its.

3. Students will then watch the following science fiction video clips:
   https://www.youtube.com/watch?v=I9L79_xEQ-U
   https://www.youtube.com/watch?v=M29yoCXw2_c
   http://www.huffingtonpost.com/2012/03/07/10-science-fiction-predictions_n_1326474.html
   Ask students to compare/contrast the first two videos with the last video (1st and 2nd videos were science fiction, and the 3rd video highlighted science fiction that became fact.

4. Propose question to students, "How can storytelling help communicate visions?" Discuss.

Explore

1. Divide class into groups of threes and fours. Give each student a copy of the article *"The Difference between Dreaming and Having a Vision"*.

2. After reading, ask students "what is the difference between dreaming and having a vision?" Using information from the text, students discuss the differences and answer question, "How do dreams influence visions and reality?

Explain

1. Invite students to raise their hands if they use a cell phone. Explain that the crew members of the original "Star Trek" TV series used handheld communicators that looked a lot like today's cell phones. The TV series aired in the 1960's before cellphones were even invented! Watching Star Trek on TV inspired Martin Cooper to invent the phone we now use today when we text our best friends.

2. Science fiction writers and other creative people with futuristic visions thought up many of the technologies we use today. They were able to have their visions transformed into reality. Some of these science fiction visions that are now reality include satellites, Taser guns, submarines, and virtual reality.

3. Inspiring scientists and inventors isn't the only thing that science fiction books, movies, TV shows and art do. They also help us explore how new technologies might change our future reality.

4. Students listen to the following Pod Cast:
   http://www.npr.org/player/v2/mediaPlayer.html?action=1&t=1&islist=false&id=129333703&m=129342164

5. After students listen to Pod Cast, ask them to reflect and talk within their groups about how "How can a dream move from a vision to reality?

Elaborate

1. While still in small groups, students are given 3 articles:
   Better Made Up: does all innovation begin as science fiction?
   http://www.theguardian.com/science/political-science/2013/mar/28/science-policy
   From Science Fiction to Science Fact: How Design Can Influence the Future
   http://uxpamagazine.org/science-fiction-to-science-fact/
   Why Today's Inventors Need to Read More Science Fiction
   http://www.theatlantic.com/technology/archive/2013/09/why-todays-inventors-need-to-read-more-science-fiction/279793/
   Each member reads one of the 3 articles quietly while using the Close reading strategies. As students are reading, teacher moves around the room to observe and help students Close read. Guide students to keep in mind some of the During-Lesson questions listed below while reading articles and creating their own questions to discuss in the seminar.

wHow does science fiction help develop visions?
wDo you believe that fiction has the power to create reality?

After reading the articles, students will conduct a 10 minute small group discussion that focuses on questions and information gained from the readings. Next, in jigsaw fashion, students will begin to formulate questions based on the shared information from the 3 articles to be discussed in the Socratic Seminar. Give students Brainstorming graphic organizer handout (see attached) for them to organize their thinking for the seminar.

2. Students in their groups complete Pair Share Preparation Sheet (see attached) to use in the seminar.

NOTE: Use steps 3, 4, 5, and 6 only if class needs a mini lesson in order to conduct a successful seminar. If mini lesson is needed; stop here and continue with these steps on following day of class.

3. Explain to students that with the information gathered and discussed from the articles, they are going to now participate in a style of discussion used in many schools and even college. The style of discussion is called the Socratic Seminar. Named after the famous ancient Greek philosopher Socrates. Ask students if they know anything about Socrates or the Socratic Seminar.

4. Further explain that Socrates was also a teacher and he encouraged his students to question everything. Students watch the following videos on Socrates, and the modeling of the Socratic Seminar.
   https://www.youtube.com/watch?v=-VgAR2kBsTI
   https://www.youtube.com/watch?v=nMn3DnyiO0w

5. Socratic Seminar: Project on Brightlink the guidelines and procedures for the seminar (see attached). Review and give to students as a handout, a copy of the guidelines and procedures to reference back to when necessary. Remaining in their small groups, students will form two circles. An inner and outer circle according to Socratic Seminar format, as illustrated below.

6. When teams have been arranged in circle, and have understood the guidelines/procedures and established circle roles, further model the process asking a prompting question; "What processes do people use to imagine and define the future?" This gives students the opportunity to work within their roles, establish an opening question from their group, and experience the teacher as facilitator of the discussion. Ask students if they have any questions about the seminar. The seminar will be no longer than
   30 minutes, if the discussions are fluid.

7. If students are hesitant to propose an opening question, begin with one of the following During-Lesson questions. These questions can also be used to move along the discussion if necessary.

   - ✓ How much influence does the visions expressed in science fiction influence our visions of the future?
   - ✓ What makes humans continually push the boundaries of knowledge
   - ✓ How can a vision move from fiction to reality?
   - ✓ Does anyone have a different opinion from this answer?

8. After both circles have completed their discussions, bring students together and begin to explore and answer the Post-Lesson Questions.

   - ✓ How does fiction give visions substance and move them towards reality?
   - ✓ How did participating in the Socratic Seminar help further your understanding of the role vision has in transforming reality?
   - ✓ Explain how participating in the Socratic Seminar helped further your understanding of how imagination transforms reality?
   - ✓ How do scientist and science fiction writers transform reality through imagination and vision?
   - ✓ How does vision shape the future?

Evaluate

Future Home Performance Task

The Home of the Future is Here Now! See the Galaxyland Exhibit at the upcoming Inter-Galactic World's Fair!

The year is 2350 and the Inter-Galactic World's Fair is coming soon to the planet Baldanium! Your goal is to create a dynamic home design which will be the centerpiece for the Galaxyland Home Exhibit. Your design will be a marvel for all the galaxies to see! As an architect for Global United, Inc. a corporation that designs and constructs homes and communities in unique and challenging environments, you've been given the opportunity to not only showcase and exhibit your design but present to the IGAC (Inter-Galactic Architect Consortium) and the Inter-Galactic Ruling Federation for immediate home construction consideration!

As a star architect, the environment in which you build your home is of your choosing. Your home could be designed for living on another planet, on earth, in space, within the ocean…anywhere. Yet, as you investigate where your will construct your home, you will need to identify and solve at least one looming problem that might hinder human habitation in that environment. The choice of problems could be environmental, geographical, technological, energy-efficiency, cultural, natural resources, or personal comfort and convenience. The solution to the problem should be innovative and reflect your vision that will benefit the entire community and ultimately benefit and support mankind's colonization of new living spaces.

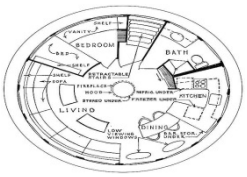
Your home design tasks are as follows:

1. Research (using online and other obtainable resources) different environments where you are considering building your home.
2. Using your research, investigate and identify at least two problems that humans might encounter when considering colonization in that environment.
3. After identifying two problems, you must incorporate within your home design a solution to one of the problems. The solution must be based on evidenced research or theories from what we know from today's science or science fiction.
4. You will create a scale drawing (extend to a 3-D model if time permits) of the exterior and interior of your home. Provide the math formulas and calculations that you used to determine the actual size represented on the scale.
5. Create a chart that highlights your homes unique features and technology.
6. Use computer (CAD) programs to showcase at least one unique room or the exterior of your home.
7. Lastly, you will create a marketing promo piece which will explain your vision that sparked your interest to create this home. The promo piece will also include an explanation of the problem you identified, how you solved that problem and how the new technology incorporated within or surrounding the home will benefit a wide scope of people who will be living in your home community and mankind. Additionally, the marketing promo will give an overview of the home design and highlight at least one innovative feature. The marketing promo can be in the form of a pod cast, powerpoint, video or any other media method that can be heard and seen by the people who walk-through the Galaxyland Exhibit. The marketing promo will serve as your presentation to the Inter-Galactic Architect Consortium and the Inter-Galactic Ruling Federation. Finally, the promo should be no longer than 10 minutes.

Extension

In a narrative format, students write a science fiction short story which communicates the vision they have for a futuristic home to be constructed in any visualized environment. The students will Use characters, settings, dialogue, and appropriate story structure to guide their writing as to what unique features their home contains and how it affects the people living within it or within that community.

Unit Resources



Lesson 1 Resources

Activating strategy to create Wordle of what students know about concept of vision
http://www.wordle.net/create

Video clips to understand what vision means
https://www.youtube.com/watch?v=O6hQVtqzS3A
https://www.youtube.com/watch?v=JB_wLI1FURw

Online articles for students to read about famous visionaries, inventors, and inventions
http://scienceworld.scholastic.com/Engineering-News/2014/10/more-than-a-toy
http://www.biography.com/people/steve-jobs-9354805
http://allaboutstevejobs.com/bio/longbio/longbio_01.php
http://learningtogive.org/paper83.html
http://www.inventions-handbook.com/George-Washington-Carver-Inventions.html

Lesson 2 Resources

Disney's Carousal of Progress ride video to see visions, inventions from past to future
https://www.youtube.com/watch?v=CmrSiJTMf7s

https://www.youtube.com/watch?v=JB_wLI1FURw
https://hagafoto.jp/templates/hagahaga/topics/house/house-e.html

Slideshows/video clips on various future home designs
http://www.slideshare.net/tikha12/different-kinds-of-houses-around-the-world

Student Books on different homes and their environments around the world
http://www.amazon.com/Material-World-Global-Family-Portrait/dp/0871564300/ref=sr_1_1?ie=UTF8&qid=1423941033&sr=8-1&keywords=material+world+book
http://www.amazon.com/Houses-Homes-Around-World-Morris/dp/0688135781/ref=sr_1_1?ie=UTF8&qid=1423941117&sr=8-1&keywords=houses+and+homes+around+the+world+series
http://www.alcoofcanada.net/Homes-Around-The-World-Homes-on-the-Move-9780778735564.html

Student online articles for research on future trends in home building and theories on sustaining human life in different future living environments
http://www.popsci.com/science/article/2011-02/after-earth-why-where-how-and-when-we-might-leave-our-home-planet?image=5
http://www.wired.com/2012/06/geeks-guide-kim-stanley-robinson/all/
http://discovermagazine.com/2015/march/9-europan-life
http://www.bbc.com/future/story/20131201-how-to-set-up-home-in-space
http://www.bbc.com/future/story/20131101-living-on-the-ocean
http://planetquest.jpl.nasa.gov/
http://www.motherjones.com/environment/2013/12/climate-scientist-environment-apocalypse-human-extinction
http://www.future-cities-lab.net/supergalaxy/
http://www.wired.com/2012/06/geeks-guide-kim-stanley-robinson/all/
http://www.trendir.com/house-design/self-sustaining-forest-house-inspired-by-trees.html#more
http://dornob.com/from-deep-seas-to-outer-space-30-futuristic-home-designs/

Student resource videos on different future home design concepts
https://www.youtube.com/watch?v=OEI4du7EH5g
https://www.youtube.com/watch?v=wAeUd9XpZAE
https://www.youtube.com/watch?v=MTrLzr-c7y0
http://www.forbes.com/sites/forbeslifestyle/2012/07/12/10-stunning-homes-of-the-future/?slide=3

Lesson 3 Resources

Video clips on how to conduct a simulation and examples of the role of architecture in the home design process
https://www.youtube.com/watch?v=ImTTW94ZicM
https://www.youtube.com/watch?v=Uloc1iW-pgc

Design simulation directions, budget planning sheets and simulation situation cards

Design Challenge: Create A Dream House!

Client: Mr. and Mrs. Gotbucks
Product Desired: Ultimate Dream Home
Project Budget: $500,000.00

General Information

Mr. and Mrs. Gotbucks would like the Balde's Brilliant Bunch Architectural Group to design their new dream home. They have asked you to create and design your OWN idea of a dream home since they have not had time to look at styles and house plans yet. They asked for you to present the design along with a budget to them. Hurry! The presentation will be scheduled for this week!

Specifications for Dream Home:

MUST HAVES:

- **3 bedrooms**
- **2 bathrooms**
- **Kitchen**
- **Laundry room**
- **Living room**
- **Breakfast area and/or dining room**
- **Garage for two cars**

WISH LIST:

- **unique**
- **guest bedroom**
- **office**
- **game room**

You Are the architect!

You will have to consider all of the following when designing the dream home. The vision is only the start! Make it a reality!

Note: This home is to be built in the town of Balandia: You have two land options……

1. **You can build on a ½ acre parcel of land in a great neighborhood inside town. Cost $30,000**
2. **You can build on a 5 acre parcel of land outside of town. Cost $20,000**

After you choose which type of land you will purchase for the Gotbucks, make sure that you include it in the budget and that you are able to state clearly why your team selected the land and how it fits into your vision of a dream home.

Building Codes for the Area:
Bedrooms: Must have AT LEAST 1 window and 1 closet
Bathrooms: Must have AT LEAST 1 sink, 1 tub/shower, and 1 toilet
Kitchen: Must have a sink, stove/oven, and spot for a refrigerator
Laundry Room: Must have plumbing
House must have electricity
Homeowners must pay land taxes and inspector fees

ALL HOMES MUST HAVE AT LEAST 2 EXITS!

Budget:
- **Total Budget: $500,000.00**
- **Lot cost: Based on your land parcel options**
- **Land Taxes/Inspector Fees: $4,000.00 (paid at completion of project)**
- **Materials/Labor/Furnishings/Landscaping: The remainder of your budget**

BE SURE TO HAVE AN ALTERNATIVE PLAN FACTORED INTO YOUR BUDGET FOR PROBLEMS AND UNWANTED SURPRISES!

Your Team Presentation to Mr. and Mrs. Gotbucks Will Include:

- ✓ **Scale model on 1 inch graph paper of the house floor plan (inside)**
- ✓ **Front view of the outside and backyard of the house with landscaping on regular 8 ½ x 11 paper**
- ✓ **Explanation of your land parcel choice**
- ✓ **A presentation of the benefits and features of your House plan**
- ✓ **A quick summary of costs**
- ✓ **The total amount of you spent**
- ✓ **2 minutes to share what problems your team found the most challenging**
- ✓ **How it felt to be an Architect!**

Price List:

All prices listed include the cost of materials and labor for that material.

Foundation and Framing		
Raised Frame Foundation and Framing	$145.00/sq. foot	Raised off ground. At least 3 steps required for entrance.
Concrete Foundation and Framing	$150.00/sq. foot	Flat on ground. No steps required.

Plumbing		
Sink	$1,645.00 each	Need a sink in every bathroom and kitchen.
Toilet	$2,558.00 each	Need a toilet in every bathroom
Refrigerator	$9,440.00 each	Placed in kitchen only
Laundry Washer	$9,058.00 each	Placed in laundry room only
Dish Washer	$4,955.00 each	Placed in the kitchen only
Tub	$3,450.00 tub/shower $3,360.00 jetted tub	Chose at least one for each FULL bathroom!
Shower	$3,220.00 each	

Electricity		
Bedroom	$1,900.00 each room	Includes wall sockets and lights
Kitchen/Dining Room	$14,800.00 each room	Includes refrigerator, oven and microwave hookup, lighting, sockets, and any other need.
Living Room	$12,340.00 each	Includes wall sockets and lights
Bathroom	$4,950.00 each room	Includes grounded wall sockets and lights
Laundry Room	$5,990.00 each room	Includes specialized plugs for dryer, lighting, and wall sockets
Closet	$350.00 each room	Lighting
Extra Rooms	$10.00/sq. foot	Your choice (ex; game room, guest room)

Outside Finishes		
Brick and Mortar	$12.00/ foot	Perimeter of outside of walls
Stucco	$15.00/ foot	Perimeter of outside of walls
Stone	$19.50/ foot	Perimeter of outside of walls

Flooring and Paint

Tile	$7.05/ sq foot	Includes mortar and grout
Wood Flooring	$12.50/ sq foot	Includes glue or nails
Marble	$18.70/ sq foot	Includes mortar
Carpet	$5.00/ sq foot	Includes padding
Paint	$120.00/per gallon	A gallon of paint covers a room that is 10 x 10. If it is larger…buy more paint!

Features		
Stair case	$1,232.00 each $ 500.00 front entrance	You will need stairs if your house is raised foundation. You will need stairs if you have a 2 story house.
Inside Door	$640.00 each	
Front Door/Outside Door	$3,500.00 each single $6,400.00 each for double	Doors are 3 feet wide or 6 feet wide for double doors
Cabinets (bathroom or kitchen)	$2,890.00 each	Cabinets are custom build to fit inside each room. They cannot be bigger than 3 feet in length
Windows (Standard)	$999.00 each	3 feet in length x 8 feet in height
Windows (Large)	$1,332.00 each	4 feet in length x 9 feet in height
Windows (Custom)	$4,000.00 each	You choose the size
Fireplace	$6,032.00 each	You choose the size

*Garages can remain without flooring and can be finished with paint or left unfinished without paint.

**Remember: Your floor plan should be practical and well thought out. Think about easy access to rooms, privacy, window placement, etc. Don't make your scale model awkward. Remember….Mr. and Mrs. Gotbucks are depending on your team!

Be Sure To Keep Track Of How Much You Have Spent.

Dream Home Budget Sheet

Category (Land, Flooring, Paint, etc.)	Cost

Total Costs_____

Design Situation Cards

Rules: As your team is designing the Dream Home; you must listen for the sound of the bell. At that time, the teacher will ask

a team member to pick one of the Situation Cards. You must immediately adjust your design and budget according to the direction on the card. Good luck teams!

Situation Cards-Set One

How Can I Integrate My Vision and Their Dream? The Gotbuck's Dream Home isn't quite your vision of an environmentally friendly home. Add one feature that is. Explain	How can I solve this problem?????? This is your opportunity to introduce your new window design that will add more light and ventilation to the home. It	Flexible Space Is the Future!!! You have a vision that will allow families to create spaces for multi uses (the attic can become a bedroom). You can do this…..but it costs.

environment and others too! Pay: $3,000.00 (Write your response on a separate piece of paper)	and for others in the future. It's a hard sell. You must present this vision to the client. Pay: $1,000.00	 Pay: $3,000.00
The Gotbucks Want an Answer!!! Your team has to explain how your vision impacts their dream. There is a delay in construction Pay: $500.00 for delay (Write your response on a separate piece of paper)	They Love Your Vision!!! Cohousing neighborhoods (neighborhoods designed by the residents) are in the near future. The Gotbuck's home will be the first in the area. Explain how you would present this vision to other potential clients You Gain: $2,000.00 (Write your response on a separate piece of paper)	Can I Have a Smart Home Please???? Your vision is to have a central computer in every home that you design which will help the house run efficiently. The Gotbuck's dream home is to have LCD screens built into the walls of each room. Convince them at the client meeting why your vision is better. Pay: $300.00 (Write your response on a separate piece of paper)
Progress Is Perfect!!!	Progress Is Perfect!!!	Progress Is Perfect!!!

Situation Cards-Set Two

Congratulations!!! You got a tax break Savings: $2,000.00	Plumbing Problems!!! The sinks were installed incorrectly. Pay: $2,000.00	Foundation Flop!!! The foundation got a crack. You must repair. Pay: $6,008.00
Weather Issue!!!	Congratulations!!!	Measurement Mess Up!!!

Rain delays have cost you an extra three weeks Pay: $5,000.00 for labor	A team member helped install some of the appliances. Savings: $2,000.00	The measurements for your tub were incorrect. Replace it in the master bathroom Pay: $300.00
Tax Collector!!! The tax collector decided to upgrade your tax rate. Pay: $1.00 extra per square foot	Electricity Problems!!! The electrician had to rewire a few areas that got damaged. Pay: $250.00 per bedroom	Congratulations!!! You get a tax break for using green appliances. Savings: $1,000.00
Progress Is Perfect!!!	Progress Is Perfect!!!	Progress Is Perfect!!!
Land Problems!!! While digging the foundation, possible Indian artifacts were found. Pay: $2,000.00 for delay	Clients are not Happy!!! Mr. and Mrs. Gotbucks do not like your kitchen. Pay: $3,000.00 for revisions	Clients are Happy!!! Mr. and Mrs. Gotbucks love your design. Savings: $1,000.00
Painting Problems!!! You chose an additional paint color for the house. Pay: $800.00 for the paint	Landscaping Costs!!! You just found out that there is a one-time Landscaping fee. Pay: $1,500.00	Progress Is Perfect!!!

Lesson 4 Resources

Historical Video clip on Socrates
https://www.youtube.com/watch?v=I9L79_xEQ-U

Video clip on students participating in Socratic Seminar
https://www.youtube.com/watch?v=M29yoCXw2_c

Online articles for students to gain knowledge on the connection between visions and science fiction
http://www.huffingtonpost.com/2012/03/07/10-science-fiction-predictions_n_1326474.html
http://www.npr.org/player/v2/mediaPlayer.html?action=1&t=1&islist=false&id=129333703&m=129342164
http://www.theguardian.com/science/political-science/2013/mar/28/science-policy
http://uxpamagazine.org/science-fiction-to-science-fact/
http://www.theatlantic.com/technology/archive/2013/09/why-todays-inventors-need-to-read-more-science-fiction/279793/

Close Reading Article for students to read before participating in Socratic Seminar

The Difference Between Dreaming and Having Vision
by Kenneth Vogt

"He was a dreamer, a thinker, a speculative philosopher… or, as his wife would have it, an idiot." ~Douglas Adams

Who doesn't like to dream? Fantasies, daydreams, whimsies of all kinds are pleasant and indulgent. Dreams are thought candy—enjoyable in the right quantity and within a balanced thought diet.

Anyone who ever left a mark on this world had a dream. Whether they created a business, governed a country, or created a movement, it all started in their mind and heart as a dream. At the beginning, that dream might have been laced with fantasies of fame or riches or power. They may have pictured successes or accolades or respect. Therein lie the temptations and the snares of big dreams.

Of course it doesn't stop there: dreaming is a place to start, but not one to prematurely end. Bringing a dream into the real world involves facing down challenges and problems, obstacles and outright resistance. So what separates the dreamers from the visionaries? How does a dream move from fantasy to reality?

When the Reality Kicks In

When we call someone a dreamer, it is rarely a compliment. We generally mean someone who is unfocused or lost in their own thoughts, and we expect that they are unlikely to do anything of value or to make any meaningful impact.

When we call someone a visionary, however, it is an entirely different matter. They are someone we see as ahead of their time, bold and adventurous. We expect them to do great things. The difference is they make things happen here in the real world.

So what is vision that makes it so different from dreaming? Vision is the result of applying the laws of physics, human nature and economics to a dream so as to transform that dream into a reality. The visionary ceases to luxuriate in all the possibilities that are inherent to dreaming, picks one and makes it real. Being a dreamer is a prerequisite for being a visionary but it is hardly a given that every dreamer becomes a visionary. Vision calls for refinement and many dreamers just aren't willing to do the work or make the sacrifices that such refinement requires.

Vision is a motivator and so it is understandable that visionless organizations don't do much to improve the world we live in. In fact, they are usually attempting to be a force to maintain the status quo. For anything to move forward, upward or onward, vision is required. Even small organizations can have an impact with enough vision behind them, and small organizations with vision often become large organizations. That's how we got Kiva and NPR, Amber Alerts and Girl Scout cookies. It's also how we got organic vegan Mexican food at Gracia Madre and delicious Jersey milk and yogurt from Saint Benoit Creamery.

Don't know those last two? It's probably because they are also committed to being local in addition to healthy, but that doesn't mean they aren't visionary outfits lead by visionary people. There are times when the vision is deep rather broad. That's the great thing about vision—it is up to the visionary to choose.

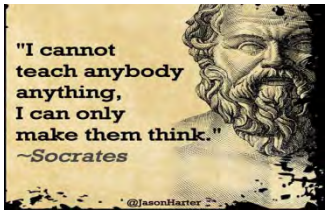
Why Visionaries are willing to pay the Price

By now you have probably figured out that you can dream all you want for free but there is a price for being visionary. To turn a dream into a vision means making hard choices: it means ditching frivolous attachments and speculative leanings. That might sound like it would suck all the joy out of your dream, but consider this: would you prefer to spend your days wishing you had the perfect pony with a flowing mane and trophy-winning speed, or riding your own real live horse?

Not everyone is meant to saddle up. You might want the horse, you might want the race, or you might want the stables. There is a lot of room for complementary visions. Whatever your dream may be, one truth remains: it is vision that transforms dreams into reality. So buy that horse, because until you do there is nothing to ride. Learn to ride that horse until you can race, then race the best you can. Win or lose, you are now beyond the dream, doing something real.

Not every visionary is a household name but every visionary makes a difference. Join the ranks of those who, big and small, are making an impact because they are living their vision and not merely indulging some dream.

Student rules to follow during participation in Socratic Seminar



Procedures for a Socratic Seminar:

- **Step 1:** Close read the same text.
- **Step 2:** Students discuss the reading and complete as a team the Brainstorming Questions and Discussion Topics graphic organizer and the Pair Share sheet.
- **Step 2:** Discuss the norms of the seminar before beginning.
- **Step 3:** Have students form 2 circles with their desks: one large circle on the outside and one smaller circle in the inside. Each person in the inner circle should have 2 supporting speakers in the outer circle.
- **Step 4:** Have one of the students in the inner circle pose the first question.
- **Step 5:** Allow students in the inner circle to have a couple of minutes to discuss the question with their supporting cast in the outer circle.
- **Step 6:** Give students in the inner circle the opportunity for 10 minutes to discuss the question, citing textual evidence. At any point, students in the outer circle can pass notes to their counterpart in the inner circle to help continue the discussion, but they may not participate verbally (continual engagement within the seminar).
- **Step 7:** When the question has been exhausted, have students rotate in their group so that the student in the inner circle switches with one of the other supporters in the outer circle.
- **Step 8:** Continue the process with questions from other volunteers when speakers from both circles have fulfilled their roles.
- **Step 9:** Conclude seminar whole class with discussion of Post-Lesson Questions.

Name: _____ Date: _____

Brainstorming Questions & Discussion Topics: Socratic Seminar Preparation

DIRECTIONS: Create 6 questions for the unit Socratic Seminar. You may use 2 from class, but at least 4 must be original (meaning you must come up with them yourself!).

Question #1:	Question #2:
Question #3:	Question #4:
Question #5:	Question #6:

DIRECTIONS: Find at least three quotes that ***SUPPORT*** your position.

Quote #1: Article title: _____ _____ Page or Paragraph #: _____	Quote #2: Article title: _____ _____ Page or Paragraph #: _____	Quote #3: Article title: _____ _____ Page or Paragraph #: _____

DIRECTIONS: Find at least three quotes that you'd like to ***ARGUE AGAINST***.

Quote #1:	Quote #2:	Quote #3:
Article title: _____ _____ Page or Paragraph #: _____	Article title: _____ _____ Page or Paragraph #: _____	Article title: _____ _____ Page or Paragraph #: _____

DIRECTIONS: Find at least three quotes that you find ***INTERESTING or CONFUSING***.

Quote #1:	Quote #2:	Quote #3:
Article title: _____ _____ Page or Paragraph #: _____	Article title: _____ _____ Page or Paragraph #: _____	Article title: _____ _____ Page or Paragraph #: _____