

# Unit 1 Inquiry “Cooperation and Competition”

## Design Your Ideal City!

Open Court Language Arts                      5<sup>th</sup> Grade                      August, 2011  
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### Lesson Overview

- Students will identify resources and needs of a small city.
- Students will classify resources and needs on a scale of necessity and quality of life.
- Students will compare and contrast utility choices and transportation.
- Students will develop a roughly scaled blue print/overview of zoning/placement of community resource centers/housing/retail.
- Students will produce a written summary analyzing their choices.
- Students will work and organize in 3 person groups to model aspects of their city using technology or 3-D materials.
- Students will present their learning to the rest of the class.
- Students will vote on their favorite city/presentation, and winners will be celebrated!

### Materials Included in this Lesson

- Lesson Overview
- Student requirements
- Inquiry calendar check-in
- Sample community lay-outs available at [www.cityofwestsacramento.org](http://www.cityofwestsacramento.org)
- Vocabulary sheet
- Student Directions

### Other Materials for this Lesson

- Technology
- Intro to computer lab
- Word/PowerPoint Intro
- Know your source! Worksheet
- Bibliography materials
- Writing a Summary
- Making an analysis
- Zoning and community planning maps
- Photos of designed communities
- Google Earth

### Skills the Student will Learn

### Student Deliverables

- Research and plan a small community
- Identify and classify resources needed by communities to survive.
- Identify resources that are “quality of life” resources and rate their importance to a society.
- Compare and Contrast how resources are used and developed
- Develop a scaled blueprint of the community
- Write a summary analyzing their learning
- Develop a model of their village using technology or a 3-D building materials
- Inquiry check-in sheet
- Bibliography
- Written Summary of findings and reasoning.
- Scaled blueprint of village/community
- Master Group plan
- Technology or 3-D model to present to the class

Length of Lesson: 7 weeks 20-30 minutes per day.

### Week 1 – Brainstorming and Planning

- Day 1; Go over Inquiry process; introduce Topic, Question, Conjecture. Show pictures and blueprints of Olympic villages, and other small cities/communities. Use Google Earth to locate your community. Identify some of the buildings and why they are there. Begin to develop a class list of resources the students would like to see in the community/village.
- Day 2; Brainstorm a list of resources; Is it needed? Is it for quality of life? Where should it be placed or stored in the community? How are we going to make it available to the community? 10 minutes as a class 10 minutes in groups of 3. (My students will already be in groups of 3 so you may need to plan time to organize groups.)
- Day 3; Group work, brainstorm a group list, develop questions, Develop a research plan. Develop conjectures to your questions, and work on ranking your community needs, wants and desires.
- Day 4; Mini Lesson Identifying sources worksheet in the computer lab. I DO NOT LET MY STUDENTS USE WIKI, WHICH IS EXPLAINED (anyone can post), AND I ALSO SHOW THEM THE SPAGHETTI TREE HARVEST IN ITALY!!!! Bibliography mini lesson for websites. (Web address, sponsor/author, any posted dates, date accessed.)
- Day 5; Computer Lab – groups start researching and collecting data about resources and layouts. I will require that at least 4 sources/websites are listed that have to do with community design, public zoning, quality of life, and will be checking a logbook that students will have to maintain as they keep track of sources, and take notes.

## Week 2 – Research and Development

- Day 1: Groups meet and discuss topics to focus on updating questions, and revising conjectures to use in developing their projects, and develop deeper learning and understanding. Divide job responsibilities. Brainstorm resources to be included in your community. What resources have you forgotten? S. Make a master list/Poster so everyone in the group is on the same page.
- Day 2: Compare and Contrast energy resources, coal, fossil, oil, natural gas, hydro, wind, solar, nuclear, organic (corn, grains). Develop charts and lists with pros and cons of possible choices for your community. Show and explain that municipalities use combinations of resources which students can use in models. SMUD.org is an excellent source as an example.
- Day 3: Computer Lab Research and Development.
- Day 4: Computer Lab Research and Development.
- Day 5: Check in – Groups present their Master list/ Poster and discuss components of their unique community. Groups may also bring thoughts worries, and questions.

## Week 3 – Planning and Blueprints

- Day 1: Mini Lesson Drawing a blueprint to scale. Students will draw the inside of the classroom to scale including as many details as possible. Winning group will receive Lion loot/Treat.
- Day 2, 3, 4: Students begin designing their communities. Each student needs to develop their own blueprint and from there the group plan can be formed. Research and development will continue, as components are added and deleted. Send 2-3 groups per day to Computer Lab. Weather, natural topography, intangibles.
- Day 5: Check-In! Students present their progress and ask and answer questions that have been popping up. Students should have major resources identified and the beginning of a blueprint and layout of their city/village. This is the groups chance to brainstorm their ideas and learning with the rest of the class.

## Activity Week 4 Finalize Research and Development

- Day 1: Mini Lesson- *Step Up To Writing* T. will model writing a summary of what we have learned so far. Focusing on resources that are needed and wanted. Brainstorm as a class and T. model up to rough draft stage.
- Day 2: Students work on their summary and get it to the rough draft stage must get checked off by teacher.

- Day 3-5; Groups that finish getting checked off can use computer lab and begin to work on final group blueprint, as well as type in their summaries

#### Week 5 – Design and Build Model

- Day 1; Groups finalize plans/blueprints and approve a master plan. From there students begin to build something the group wants to highlight from their city that will attract citizens using technology or 3-D materials.
- Day 2-4; Groups build and develop their final projects and presentations.
- Day 5; Check-In Groups present progress and show bibliography.

#### Week 6 – Finalize and Practice Presentation

- Day 1-5; Groups finalize and practice their presentations. Teacher meets with each group throughout the week and checks on progress. Make sure groups understand that presentations are next week!

#### Week 7 – Presentations

- Day 1; Volunteers present for 10 extra credit points. Once volunteers are done than sticks are drawn and groups present as they are drawn. Usually by Tuesday we are drawing sticks. Students are graded on group presentation, summary, and blueprint, and bibliography.
- Day 2-4; Students present their projects, and turn in their learning as names are drawn.
- Day 5; Celebration of learning! Watch a movie and enjoy snacks and each other's company.

## Enrichment Suggestions

Groups can expand their village into larger cities. They can research other resources and dive deep into economic theory and what keeps a city running. I am thinking about highlighting a ghost town and using it as an example of what happens to a local economy when the main resource runs out. The building aspect can take on a life of its own also as students will have the freedom to build anything they would like to highlight, including the entire city. The extensions are limitless. I am also arranging to have a local architect, and a city planner come talk to the students about careers and requirements in city planning and building.

## Student Resources

- [www.cityofwestsacramento.org](http://www.cityofwestsacramento.org) (Click on services for a complete list of maps)
- [www.pge.com/about/community/education/](http://www.pge.com/about/community/education/)
- [www.smud.org/en/education-safety/Pages/index.aspx](http://www.smud.org/en/education-safety/Pages/index.aspx)
- [www.ecology.com/features/fossilvsrenewable/fossilvsrenewable.html](http://www.ecology.com/features/fossilvsrenewable/fossilvsrenewable.html) (remember there are 2 sides to every argument!)
- [www.iptv.org/explore/energy/profiles/fossil\\_fuels.cfm](http://www.iptv.org/explore/energy/profiles/fossil_fuels.cfm)
- [www.googleearth.com](http://www.googleearth.com)
- <http://www.planetizen.com/newswire>
- [http://kids.gov/k\\_5/k\\_5\\_government.shtml](http://kids.gov/k_5/k_5_government.shtml)
- <http://www.answers.com/topic/infrastructure>
- <http://www.planning.org/kidsandcommunity/>
- <http://www.washington-apa.org/programs/kidsinplanning/>

## Foundation Academic Standards

- (<http://www.scoe.net/castandards/>)
- **Reading Integration of Knowledge and Ideas – 9.** Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.
- Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
  - Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer’s purpose.
  - Provide logically ordered reasons that are supported by facts and details.
  - Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically).
  - Provide a concluding statement or section related to the opinion presented.
- Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
  - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on *grade 5 topics and texts*, building on others’ ideas and expressing their own clearly.
  - 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.
  - Follow agreed-upon rules for discussions and carry out assigned roles.
  - Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
  - Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

## CTE Pathway Standards

(<http://www.cde.ca.gov/be/st/ss/>)

### 5.0 Problem Solving and critical thinking

Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, and problem solving

techniques:

- 5.1 Apply appropriate problem solving
- 5.2 Understand the systematic problem-solving models
- 5.3 Use critical thinking skills
- A 2.0 Students understand the theoretical, practical, and contextual issues that influence design
- A3.0 Students understand the relationship between architecture and the external environment
- 3.1 Understand the influence of community context and zoning requirements on architectural design
- 3.2 Develop a site analysis that considers passive energy techniques, sustainability issues, and landscaping
- B5.0 Students understand the design process and how to solve analysis and design problems

### Lesson Plan Relevance to Externship

My externship was originally slated to take place with an architectural firm that designs small self-contained communities that have a very high quality of life. Our first Language Arts Unit explores cooperation and competition, which I thought was a perfect fit for community living. Unfortunately they had to down-size, and I was not able to work with them. I was then transferred to shadow a city planner at the City of West Sacramento. T was shown the process of zoning a city and what our citizens have to go through to build and develop. It is a very skilled field with many components, starting with environmental studies, water, sewer, electricity and other components of infrastructure, roads and access, housing styles, insurance issues like floods and earthquakes. From there it was easy to expand the village into a city concept and have the students zone their cities and highlight aspects of their communities that will attract other citizens.

As we move forward into a very uncertain future smart community planning will be a very hot job in the future. In this field, and project, students will have to look at social issues, be able to analyze written text, summarize it and give an opinion of the piece, as well as use math to draw and plan a scaled drawing. This project illustrates why what we are learning in class is so important to their future and how they can have fun doing it while earning a living.

Rubric for the Cooperation and Competition Unit 1 Inquiry Project

Student Deliverables	1 Exceeds Expectations (21-25 pts.)	2 Meets Expectations (16-20 pts.)	3 Approaches Expectations (11-15 pts.)	4 Fails to meet Expectations (0-10 pts.)
Blueprint Individual (25 pts.)				
Opinion Summary (25 pts.)				
Group Blueprint (25 pts.)				
Bibliography (25 pts.)				
Presentation (50 pts.)				
Extra credit (Up to 25 pts.)				

Total \_\_\_\_\_