



## **NINTH GRADE SCIENCE**

*"SUSTAINABLE SPRINGFIELD"*

### **Project Description**

If you watch the news, listen to politicians' speeches or look around at advertisements these days, you'll see many references to the environment. "Low carbon footprint." "Green design." "Energy efficient." What does any of that mean?

Our project will be to examine ways for Springfield can become "greener" - meaning that our city can work to reduce our human impact on our environment. We will visit schools, city buildings, and meet with local experts. We will conduct tests of energy efficiency and report our data to the city council.

The mayor and city council have agreed to listen to our recommendations--and, provided that they represent cost savings for the city--to implement our suggestions to improve our city.

### **Group Work**

In small groups, you will produce a report on one of these areas:

- Energy Conservation
- Waste Management
- Water Management
- Transportation

Your report will:

- Describe the problem you are trying to solve
- Discuss the steps the city should take to address the problem
- Discuss the benefits of your specific steps to the city.

### **Individual Work**

Each of you will draft an original report that follows the above specifications for the group report. This draft will be reviewed by all of your group members and one classmate outside of your group. Once *all* individual reports are reviewed, your group can begin drafting one collaborative draft.

### **Classwork**

We will be investigating the following areas as a class:

- Conducting energy efficiency tests with GreenSpace, a local energy efficiency firm.

- Researching other community efforts around the US and the world to become more environmentally friendly.
- Interviewing community members, civic and school leaders for their perspective on making our city more sustainable.

### **Assessment**

We will use this rubric for assessing the final reports:

<b>Content Area / Performance Indicator</b>	<b>Does Not Meet</b>	<b>Partially Meets</b>	<b>Meets</b>	<b>Exceeds</b>
<b>Science</b>  Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.	I can describe the impact of human activity on the environment and biodiversity.	I can describe the impact of human activity on the environment and biodiversity, and identify possible solutions.	I can assess the impact of human activity on the environment and biodiversity, and propose a refined solution.	I can assess the impact of human activity on the environment and biodiversity, and evaluate the suitability of different solutions.
<b>ELA</b>  Students will select and synthesize information in order to develop a claim, argument or idea that relies on valid reasoning and relevant and sufficient evidence.	I can select information relevant to a topic.	I can use information relevant to a topic to identify a position or idea.	I can prioritize relevant information to support a perspective.	I can justify a perspective by acknowledging opposing perspectives.
<b>ELA</b>  Students will organize their writing using transitions so	I can use transition words and phrases to link the	I can make use of words, phrases, and clauses to connect and develop	I can select words, phrases and clauses to create cohesion, clarify	I can adapt phrases and clauses to maximize the clarity of the ideas and

that elements develop and conclude.	relationships between ideas and concepts.	relationships between ideas and concepts.	relationships, and prioritize ideas and concepts.	concepts resulting in a coherent whole.
<b>ELA</b> Students will adopt the conventions of standard English.	I can identify conventions of standard English in a text.	I can identify errors in capitalization, punctuation, and spelling in my own work.	I can use the conventions of standard English capitalization, punctuation, and spelling.	I can use the conventions of standard English capitalization, punctuation and spelling to add interest to my writing.