

## WHAT GOES AROUND, COMES AROUND

### 6th-8th Grade Discussion Guide

*Developed by: Joseph Kanke*

#### SCIENCE CATEGORIES

Life Science and Physical Science

#### TIMEFRAME

5-8 class periods

#### MATERIALS

Articles embedded within, access to computers for research, video recording devices, computer or poster paper

#### KEYWORDS

Corporate Sustainability, Circularity, Sustainability

### LEARNING OBJECTIVES

- Understand and explain how circularity works
- Compare and contrast what sustainability means to individuals and corporations

### ACTIVITY SUMMARY

Students will explore what sustainability means for large corporations. In the first activity students will consider what potential environmentally harmful actions are connected to the products they buy and then brainstorm how they could adopt more sustainable actions.

Then students will explore their understanding of circularity within corporations by doing a mini-research of a company and creating a visual depiction of it with accompanying text.

The final product will be individual research of a corporation's sustainability plan to construct a letter to the company sharing some options to increase sustainability. Finally, students will compare how sustainability are similar and different between corporations and individuals.

### BACKGROUND INFORMATION

This episode explores sustainability at the corporate level. Zac visits Quad to learn more about what large companies can do. Sustainability for companies means taking responsibility for everything you put out into the world; also known as circularity.

A circulatory economy is understanding where everything you purchase comes from and where it ends. The idea of circularity is that it never ends; it goes back into the world to be used in different products. For example, a tree may be made into paper and that recycled paper can be made into packaging which can be recycled again.

Quad is one example of a company that incorporates sustainability. They start by sourcing sustainable paper, they cut it to the exact size they need to reduce waste and any waste created is recycled back into paper.

Corporate sustainability is important because corporations are mass producers of waste—therefore their impact is greater than individuals. Still, every individual makes a difference and should practice circularity in their own home. One example of how individuals can do this is to buy products packaged in cardboard instead of plastic. Individuals can also influence business to take on more sustainable practices.

## VOCABULARY

**CORPORATE SUSTAINABILITY:** the strategy whereby a business delivers its goods and services in a manner that is both environmentally sustainable and supports its economic growth.

**CIRCULARITY:** the circular economy aims to retain the lifespan of products through repair and maintenance, reusing, remanufacturing, or upcycling. To sum it up, circularity is about maintaining value and not creating waste in the process.

**SUSTAINABILITY:** avoidance of the depletion of natural resources in order to maintain an ecological balance.

## LEARNING PROCEDURE

Instructor says, "I'd like each of you to take a moment and think of the last purchase either you or someone you know made from a large company and jot it down. Now, consider all of the potentially harmful environment impacts attached to the creation of the product. Jot those down as well (depending on grade level, instructor may need to provide some examples: Where did the raw materials come from? What is the packaging like? Are there pollution or water byproducts involved in the creation of the item?) Now turn to a partner and chat. See if they have any other ideas for you. Be prepared to share out one consideration with the whole class."

After students have had some time to talk with their partners, ask for some volunteers or call on partners to share out one impact they considered. After sharing, pose the question,

"What are some things these companies might consider doing differently to practice sustainability?"

Solicit student responses.

## ACTIVITY 1:

As partners, explain to students that they will be exploring the concept of circularity in large companies more deeply. Charge students with creating a visual to demonstrate circularity which includes written text. Students can choose the format they choose to pursue to represent circularity: a video, a slide presentation, a poster or brochure are all acceptable examples. Explain to students that they should provide a real example that they have encountered in their research. If students struggle to find an example online, encourage them to reach out to local companies via email or phone to ask for examples.

Students should be prepared to share out their finished products to the class and field a Q & A session.

## ACTIVITY 2:

Tell students to make a list of companies that they, or their families, regularly make purchases from. Give them an opportunity to research the companies and see if they can find any information on their sustainability policy. Tell students to choose one company that doesn't appear to have a sustainability policy or could improve upon the policy. Instruct students to write a letter to the company explaining what changes they could make to be more sustainable and why the student feels it is important. Provide students with a rubric or list of expectations to be included in their letter. Below are some examples, but instructor's should use their own discretion and potentially co-write the rubric with students.

Possible components of the letter

- What draws you to purchase from this company?
- What is a practice of this company that doesn't seem sustainable?
- What is a sustainable practice you would like to see this company adopt?
- This portion should indicate research on the student's behalf with an explanation of the practice based in research.
- An example of a company who is currently practicing sustainability and how they are doing so. The following website, [B CORP](#) will provide a starting place.
- An invitation for the company to respond to questions the student may pose about their sustainability plan.
- An example of how they, as individuals, are changing behaviors to be more sustainable in their own actions.

Ensure to build in time for peer review of draft letters and revise/edit opportunities. In the event students receive responses from the company, encourage them to share the response with the class.

## CONCLUSION

Venn Diagram: Instruct students to draw a venn diagram on a piece of paper and to label the right circle corporate sustainability and the left circle individual sustainability. Instruct students to write as many actions as they can that are unique to corporations, unique to individuals and those actions that are similar.

## EXTENDING THE LESSON

- Make a TV or radio commercial promoting a sustaining action
- Write an interview of a relevant business leader regarding their sustainable plan
- Create a children's story about the sustainability and share it with a local elementary school
- Make a short documentary film about a large corporation
- Create a glossary of relevant terms about sustainability

## RELATED LINKS

- Pine View Wildlife Rehabilitation and Education Center: Education page about Pine View: <https://pineviewwrc.org/about>
- Quad's website (generally shows what they do) <https://www.quad.com>

## WHAT GOES AROUND, COMES AROUND

### 6TH GRADE

<b>CCSS.ELA-LITERACY.RI.6.1</b>	Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
<b>CCSS.ELA-LITERACY.RI.6.2</b>	Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
<b>CCSS.ELA-LITERACY.RI.6.7</b>	Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
<b>CCSS.ELA-LITERACY.W.6.1</b>	Write arguments to support claims with clear reasons and relevant evidence.
<b>CCSS.ELA-LITERACY.W.6.1.A</b>	Introduce claim(s) and organize the reasons and evidence clearly.
<b>CCSS.ELA-LITERACY.W.6.1.B</b>	Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.
<b>CCSS.ELA-LITERACY.W.6.1.C</b>	Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.
<b>CCSS.ELA-LITERACY.W.6.1.D</b>	Establish and maintain a formal style.
<b>CCSS.ELA-LITERACY.W.6.1.E</b>	Provide a concluding statement or section that follows from the argument presented.
<b>CCSS.ELA-LITERACY.W.6.2</b>	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
<b>CCSS.ELA-LITERACY.W.6.2.A</b>	Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
<b>CCSS.ELA-LITERACY.W.6.2.B</b>	Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
<b>CCSS.ELA-LITERACY.W.6.2.C</b>	Use appropriate transitions to clarify the relationships among ideas and concepts.
<b>CCSS.ELA-LITERACY.W.6.2.D</b>	Use precise language and domain-specific vocabulary to inform about or explain the topic.
<b>CCSS.ELA-LITERACY.W.6.3</b>	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
<b>CCSS.ELA-LITERACY.W.6.7</b>	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.
<b>CCSS.ELA-LITERACY.W.6.4</b>	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
<b>CCSS.ELA-LITERACY.SL.6.1</b>	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.
<b>CCSS.ELA-LITERACY.SL.6.1.A</b>	Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
<b>CCSS.ELA-LITERACY.SL.6.1.C</b>	Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.
<b>CCSS.ELA-LITERACY.SL.6.1.D</b>	Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.

## 7TH GRADE

<b>CCSS.ELA-LITERACY.RI.7.1</b>	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
<b>CCSS.ELA-LITERACY.RI.7.2</b>	Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.
<b>CCSS.ELA-LITERACY.W.7.2</b>	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
<b>CCSS.ELA-LITERACY.W.7.1</b>	Write arguments to support claims with clear reasons and relevant evidence.
<b>CCSS.ELA-LITERACY.W.7.1.A</b>	Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically.
<b>CCSS.ELA-LITERACY.W.7.1.B</b>	Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
<b>CCSS.ELA-LITERACY.W.7.1.C</b>	Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.
<b>CCSS.ELA-LITERACY.W.7.1.D</b>	Establish and maintain a formal style.
<b>CCSS.ELA-LITERACY.W.7.1.E</b>	Provide a concluding statement or section that follows from and supports the argument presented.
<b>CCSS.ELA-LITERACY.W.7.2.A</b>	Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
<b>CCSS.ELA-LITERACY.W.7.2.B</b>	Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
<b>CCSS.ELA-LITERACY.W.7.2.C</b>	Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.
<b>CCSS.ELA-LITERACY.W.7.2.D</b>	Use precise language and domain-specific vocabulary to inform about or explain the topic.
<b>CCSS.ELA-LITERACY.W.7.2.E</b>	Establish and maintain a formal style.
<b>CCSS.ELA-LITERACY.W.7.2.F</b>	Provide a concluding statement or section that follows from and supports the information or explanation presented.
<b>CCSS.ELA-LITERACY.W.7.3</b>	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
<b>CCSS.ELA-LITERACY.W.7.4</b>	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
<b>CCSS.ELA-LITERACY.SL.7.1</b>	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.
<b>CCSS.ELA-LITERACY.SL.7.1.A</b>	Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
<b>CCSS.ELA-LITERACY.SL.7.1.C</b>	Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.
<b>CCSS.ELA-LITERACY.SL.7.1.D</b>	Acknowledge new information expressed by others and, when warranted, modify their own views.

## 8th Grade

<b>CCSS.ELA-LITERACY.RI.8.1</b>	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
<b>CCSS.ELA-LITERACY.RI.8.2</b>	Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.
<b>CCSS.ELA-LITERACY.W.8.1</b>	Write arguments to support claims with clear reasons and relevant evidence
<b>CCSS.ELA-LITERACY.W.8.1.A</b>	Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
<b>CCSS.ELA-LITERACY.W.8.1.B</b>	Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
<b>CCSS.ELA-LITERACY.W.8.1.C</b>	Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.
<b>CCSS.ELA-LITERACY.W.8.1.D</b>	Establish and maintain a formal style.
<b>CCSS.ELA-LITERACY.W.8.1.E</b>	Provide a concluding statement or section that follows from and supports the argument presented.
<b>CCSS.ELA-LITERACY.W.8.2</b>	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
<b>CCSS.ELA-LITERACY.W.8.2.A</b>	Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
<b>CCSS.ELA-LITERACY.W.8.2.B</b>	Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.
<b>CCSS.ELA-LITERACY.W.8.2.C</b>	Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
<b>CCSS.ELA-LITERACY.W.8.2.D</b>	Use precise language and domain-specific vocabulary to inform about or explain the topic.
<b>CCSS.ELA-LITERACY.W.8.2.E</b>	Establish and maintain a formal style.
<b>CCSS.ELA-LITERACY.W.8.2.F</b>	Provide a concluding statement or section that follows from and supports the information or explanation presented.
<b>CCSS.ELA-LITERACY.W.8.3</b>	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
<b>CCSS.ELA-LITERACY.W.8.4</b>	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
<b>CCSS.ELA-LITERACY.SL.8.1</b>	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.
<b>CCSS.ELA-LITERACY.W.8.7</b>	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
<b>CCSS.ELA-LITERACY.SL.8.1.A</b>	Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
<b>CCSS.ELA-LITERACY.SL.8.1.C</b>	Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.
<b>CCSS.ELA-LITERACY.SL.8.1.D</b>	Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.



## 9-10th Grade

<b>CCSS.ELA-LITERACY.RI.9-10.1</b>	Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
<b>CCSS.ELA-LITERACY.RI.9-10.2</b>	Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
<b>CCSS.ELA-LITERACY.W.9-10.1</b>	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
<b>CCSS.ELA-LITERACY.W.9-10.1.A</b>	Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence.
<b>CCSS.ELA-LITERACY.W.9-10.1.B</b>	Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns.
<b>CCSS.ELA-LITERACY.W.9-10.1.C</b>	Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
<b>CCSS.ELA-LITERACY.W.9-10.1.D</b>	Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
<b>CCSS.ELA-LITERACY.W.9-10.1.E</b>	Provide a concluding statement or section that follows from and supports the argument presented.
<b>CCSS.ELA-LITERACY.W.9-10.2</b>	Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
<b>CCSS.ELA-LITERACY.W.9-10.2.A</b>	Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
<b>CCSS.ELA-LITERACY.W.9-10.2.B</b>	Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
<b>CCSS.ELA-LITERACY.W.9-10.2.C</b>	Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.
<b>CCSS.ELA-LITERACY.W.9-10.2.D</b>	Use precise language and domain-specific vocabulary to manage the complexity of the topic.
<b>CCSS.ELA-LITERACY.W.9-10.2.E</b>	Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
<b>CCSS.ELA-LITERACY.W.9-10.2.F</b>	Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).
<b>CCSS.ELA-LITERACY.W.9-10.3</b>	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.
<b>CCSS.ELA-LITERACY.W.9-10.4</b>	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
<b>CCSS.ELA-LITERACY.SL.9-10.1</b>	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
<b>CCSS.ELA-LITERACY.SL.9-10.1.A</b>	Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
<b>CCSS.ELA-LITERACY.SL.9-10.1.C</b>	Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
<b>CCSS.ELA-LITERACY.SL.9-10.1.D</b>	Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
<b>CCSS.ELA-LITERACY.W.9-10.7</b>	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.



- CCSS.ELA-LITERACY.RI.11-12.1** Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.
- CCSS.ELA-LITERACY.RI.11-12.2** Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis; provide an objective summary of the text.
- CCSS.ELA-LITERACY.W.11-12.1** Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
- CCSS.ELA-LITERACY.W.11-12.1.A** Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence.
- CCSS.ELA-LITERACY.W.11-12.1.B** Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases.
- CCSS.ELA-LITERACY.W.11-12.1.C** Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
- CCSS.ELA-LITERACY.W.11-12.1.D** Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- CCSS.ELA-LITERACY.W.11-12.1.E** Provide a concluding statement or section that follows from and supports the argument presented.
- CCSS.ELA-LITERACY.W.11-12.2** Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
- CCSS.ELA-LITERACY.W.11-12.2.A** Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
- CCSS.ELA-LITERACY.W.11-12.2.B** Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
- CCSS.ELA-LITERACY.W.11-12.2.C** Use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.
- CCSS.ELA-LITERACY.W.11-12.2.D** Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic.
- CCSS.ELA-LITERACY.W.11-12.2.E** Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- CCSS.ELA-LITERACY.W.11-12.2.F** Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).
- CCSS.ELA-LITERACY.W.11-12.3** Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.
- CCSS.ELA-LITERACY.W.11-12.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- CCSS.ELA-LITERACY.W.11-12.7** Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
- CCSS.ELA-LITERACY.SL.11-12.1** Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-LITERACY.SL.11-12.1.A** Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.

**Science Standards**

**Middle School**

**MS-ESS3-3 Earth and Human Activity**

**Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.\***

**Performance Expectation**

**Grade:**

**Middle School (6-8)**

**High School**

**HS-ESS3-4 Earth and Human Activity**

**Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.\***

**Performance Expectation**

**Grade:**

**High School (9-12)**