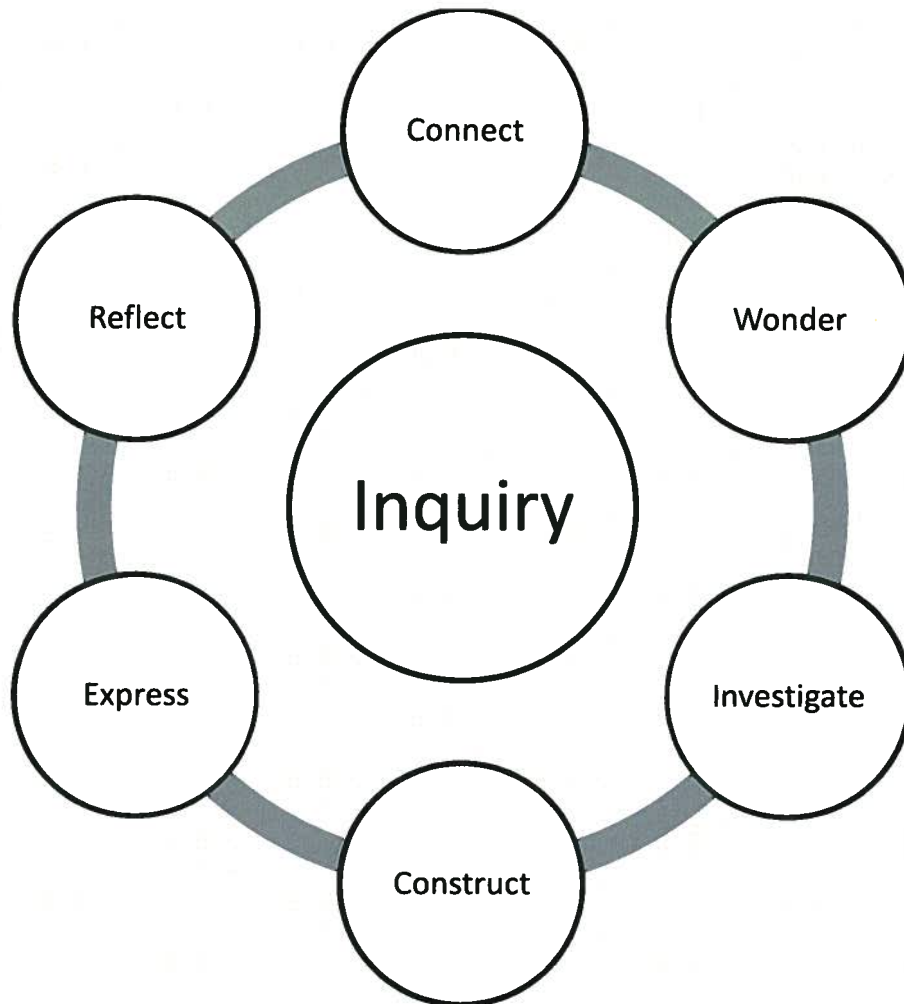


Core Research: Research and the CCLS



Grades 6-12

OCM BOCES Instructional Support
Curriculum, Instruction and Assessment
Network Team

jkeim@ocmboces.org
plitzenberger@ocmboces.org
School Library System
mtiedermann@ocmboces.org

OCMBOCES



Agenda

9:30-10:00	Setting the Stage for Inquiry-Based Research
10:00-10:30	Initiating Inquiry - CONNECT
10:30-11:00	Generating Questions
11:00-11:30	Gathering Information
11:30-12:30	Lunch
12:30-1:15	Scenarios
1:15-1:20	Structures for Work Time
1:20-2:10	Work Time
2:10-2:30	Closing Reflection and Evaluation

Outcomes

- Identify the components of a Common Core-aligned inquiry and research process.
- Explain how a Common Core-aligned research project emphasizes questioning, inquiry, and deepening and explaining understanding rather than defending a position.
- Understand that inquiry and research are iterative, cyclical processes.
- Have the opportunity to develop a new research plan or refine an existing research plan to align with the CCLS.



Inquiry Approach versus **Coverage Approach**

INQUIRY Approach

- Student voice and choice
- Questions and concepts
- Collaborative work
- Strategic thinking
- Authentic investigations
- Student responsibility
- Student as knowledge creator
- Interaction and talk
- Teacher as model and coach
- Cross-disciplinary studies
- Multiple resources
- Multimodal learning
- Engaging in a discipline
- Real purpose and audience
- Caring and taking action
- Performance and self-assessments

COVERAGE Approach

- Teacher selection and direction
- Assigned topics and isolated facts
- Solitary work
- Memorization
- As if/surrogate learning
- Student compliance
- Student as information receiver
- Quiet and listening
- Teacher as expert and presenter
- One subject at a time
- Reliance on a textbook
- Verbal sources only
- Hearing about a discipline
- Extrinsic motivators
- Forgetting and moving to next unit
- Filling in bubbles and blanks



Small-Group Collaboration Skills

- ① **Be responsible to the group**
- ② **Listen actively**
- ③ **Speak up**
- ④ **Share the air and encourage others**
- ⑤ **Support your views and findings**
- ⑥ **Show tolerance and respect**
- ⑦ **Reflect and correct**



Comprehension Continuum

Answers Literal Questions

Retells

Merges Thinking with Content

Acquires Knowledge

Actively Uses Knowledge

Answering literal questions shows that learners can skim and scan for answers, pick one out that matches the question, and have short-term recall. Does not demonstrate understanding.

Retelling shows that learners can organize thoughts sequentially and put them into their own words. Shows short-term recall of events in a narrative and bits of information in nonfiction. Does not, in and of itself, demonstrate understanding.

Real understanding takes root when learners merge their thinking with the content by connecting, inferring, questioning, determining importance, synthesizing, and reacting to information. Understanding begins here.

Once learners have merged their thinking with the content, they can begin to acquire knowledge and insight. They can learn, understand, and remember. Shows deeper understanding.

With new insights and understandings, learners can actively use knowledge and apply what they have learned to the experiences, situations, and circumstances in their daily lives to expand understanding and even take action.

Teacher Language

- How many ...?
- What is ...?
- Where did ...?
- Who was ...?

Teacher Language

- Tell me what happened ...
- Tell me what it was about...
- Retell what you read ...
- What comes first, second, third?
- When did ...?

Teacher Language

- What do you think?
- What did you learn?
- What does this remind you of?
- What do you wonder?
- What do you visualize?
- What do you infer?
- What makes you say that?
- How did you come up with that?
- What makes you think that?

Teacher Language

- What did you learn that you think is important to remember?
- Why does it matter?
- What do you think are some big ideas here?
- What do you think the author most wants you to get out of this?
- Say more about that...

Teacher Language

- What do you want to do about this?
- Why do you want to take action?
- Is there a way you can get involved?
- How do you think you can help?
- What is your plan?

TEACHER RESEARCH UNIT GUIDE

I. INITIATING INQUIRY

Students determine what they want to know about a topic and develop inquiry questions that they will investigate.

II. GATHERING INFORMATION

Students find and take notes on sources that will help them answer their inquiry questions and define the scope of their investigation.

III. DEEPENING UNDERSTANDING

Students analyze key sources to deepen their understanding and answer their inquiry questions.

IV. FINALIZING INQUIRY

Students synthesize their information to determine what they have learned and what more they need to know about their area of investigation. They gather and analyze more information to complete their inquiry.

V. DEVELOPING AND COMMUNICATING AN EVIDENCE-BASED PERSPECTIVE

Students review and synthesize their research to develop and communicate an evidence-based perspective on their area of investigation.

TEACHER RESEARCH UNIT GUIDE		STUDENT MATERIAL	TEACHER MATERIAL
1. Introduction to Unit	2. Exploring a Topic	Student Research Plan	Teacher Research Unit Guide
		Exploring a Topic TCD Checklist	Exploring a Topic (Annotated)
		Potential Sources	Potential Sources (Annotated)
		Area Evaluation Checklist	Area Evaluation Checklist
		Posing Inquiry Questions	Research Criteria Matrix
3. Conducting Pre-searches	4. Vetting Areas of Investigation	Area Evaluation Checklist	Area Evaluation Checklist
		Posing Inquiry Questions	Research Criteria Matrix
		Assessing Sources	Assessing Sources Handout
5. Generating Inquiry Questions	1. Planning for Searches	Taking Notes	Taking Notes (Annotated)
		Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
2. Assessing Sources	2. Making and Recording Notes	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)
3. Making and Recording Notes	4. Building an Initial Research Frame	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)
4. Building an Initial Research Frame	5. Conducting Searches Independently	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)
5. Conducting Searches Independently	1. Selecting Key Sources	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)
2. Reading Sources Closely	2. Reading Sources Closely	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)
3. Discussing Types of Claims	3. Discussing Types of Claims	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)
4. Writing Evidence-Based Claims about Sources	4. Writing Evidence-Based Claims about Sources	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)
1. Addressing Inquiry Paths	1. Addressing Inquiry Paths	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)
2. Organizing Evidence	2. Organizing Evidence	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)
3. Evaluating Research	3. Evaluating Research	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)
4. Refining and Extending Inquiry	4. Refining and Extending Inquiry	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)
1. Reviewing Research Portfolios	1. Reviewing Research Portfolios	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)
2. Expressing an Evidence-Based Perspective	2. Expressing an Evidence-Based Perspective	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)
3. Writing a Bibliography	3. Writing a Bibliography	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)
4. Preparing to Meet Research Purposes	4. Preparing to Meet Research Purposes	Posing Inquiry Questions	Posing Inquiry Questions Research Frame
		Assessing Sources	Assessing Sources Handout
		Taking Notes	Taking Notes (Annotated)



STUDENT RESEARCH PLAN		TOOLS AND HANDOUTS
I. INITIATING INQUIRY <i>I determine what I want to know about a topic and develop inquiry questions that I will investigate.</i>	1. Exploring a Topic	Exploring a Topic TCD Checklist Potential Sources Area Evaluation Checklist Posing Inquiry Questions Handout
	2. Choosing an Area of Investigation	
	3. Generating Inquiry Questions	
II. GATHERING INFORMATION <i>I find and take notes on sources that will help me answer my inquiry questions and define the scope of my investigation.</i>	1. Finding and Assessing Sources	Potential Sources Assessing Sources Handout Taking Notes Research Frame Posing Inquiry Questions Handout
	2. Making and Recording Notes	
	3. Framing Inquiry	
III. DEEPENING UNDERSTANDING <i>I analyze key sources to deepen my understanding and answer my inquiry questions.</i>	1. Selecting Key Sources	Potential Sources Assessing Sources Handout Taking Notes Forming EBC EBC Criteria Checklist Connecting Ideas Handout
	2. Analyzing Researched Information	
	3. Writing Evidence-Based Claims	
IV. FINALIZING INQUIRY <i>I synthesize my information to determine what I have learned and what more I need to know about my area of investigation. I gather and analyze more information to complete my inquiry.</i>	1. Organizing Evidence	Research Frame Forming EBC Organizing EBC Research Evaluation Checklist
	2. Evaluating Research	
	3. Refining and Extending Inquiry	Repeat Parts II and III
V. DEVELOPING AND COMMUNICATING AN EVIDENCE-BASED PERSPECTIVE <i>I review and synthesize my research to develop and communicate an evidence-based perspective on my area of investigation.</i>	1. Reviewing Research	Research Frame Organizing EBC Synthesizing EBC EBC Criteria Checklist Connecting Ideas Handout Evidence-Based Perspective
	2. Expressing an Evidence-Based Perspective	
	3. Preparing to Meet Research Purposes	



Name Topic

Write a brief account of the class conversation about the topic, describing what you know at this point about some of its aspects:

After discussing the topic in class, students document the ideas that arose during the conversation that could lead to the framing of a series of potential areas of investigation. Student responses should include a sentence that introduces the topic. 1-2 complete sentences that explain key ideas from the discussion.

This brief account will help the teacher assess what previous knowledge the student has on the topic, what the student and/or class has understood as key dimensions for exploring the topic and how they formulate them, and aid students to develop an awareness of the learning process in general.

POTENTIAL AREA OF INVESTIGATION

In a few words, describe an area within the topic that you would like to know more about:

Based on the topic exploration, students perform pre-searches and discuss the topic with members of their learning community (peers, teachers, librarians...). From these discussions, they will draw more focused ideas about specific questions or themes they would like to investigate further within the framework of the general topic. Student responses in each box should include a complete statement or question that introduces a focused area of investigation that is related to the overall topic.

The teacher can assess the student's understanding of the source and its connection to the overall topic by determining the student's clarity, precision and complexity in phrasing what he or she would like to know more about the topic.

Explain why you are interested in this area of the topic:

The research process must encourage productive curiosity. Therefore, it is important that the students are afforded the opportunity to genuinely relate to the areas of investigation they choose to explore. Student responses should include a complete sentence that clearly explains why they are interested in the area of investigation.

The teacher will gain important information about the student's background knowledge on the topic, and be able to facilitate/enrich the research process by encouraging the student to relate the topic to his or her life.

Express your potential area of investigation as a question or problem:

Students review what they would like to know more about, how the topic relates to something they already know or have experiences, and then write what they want to know more about the topic as a question or problem.

The student's question or statement will help the teacher assess the student's ability to link what they have understood to an overall problem, and how creative and proactive the student is in furthering the investigation.

Name Model..... Topic Design.....



Write a brief account of the class conversation about the topic, describing what you know at this point about some of its aspects:

Practically no one in class had put too much thought into design - both in terms of products and concepts. We all seem to take it for granted without thinking about all the effort that goes into designing everything around us. I suppose good design goes unnoticed because it's working, but when something is designed poorly, we always notice it.

Thinking about design as a way of looking at our relationships to the world, contexts, things, other people, and even ourselves, was a new idea for me.

Although I was interested in web design, and branding, I was particularly interested in the idea and popularity of sustainable design. I found the principles, such as "renewable," "efficient," "performance," and "quality," that apply to sustainable design interesting--how design evolves not only to our personal preferences and wants, but also to our values. Our relationships with everything from fabrics to water can be shaped by sustainability.

POTENTIAL AREA OF INVESTIGATION 1

In a few words, describe an area within the topic that you would like to know more about:

If the world has seemingly limited resources, it is important that we not only preserve them, but also find ways we might be able to make them "unlimited" through how we use them. I believe there is growing crisis around our use of resources. I'd like to explore the role design plays in helping use with this issue.

Explain why you are interested in this area of the topic:

I know how much I consume things and that I usually do so without regard to the effects on future people. I am concerned that our growing population is behaving as bad if not worse than me. The articles we read demonstrated not only the need for sustainable design, but how well it can work. I want to understand more so I can us make better decisions.

Express your potential area of investigation as a question or problem:

What is sustainable design and why does it matter?

Name Model..... Topic Design.....



POTENTIAL AREA OF INVESTIGATION 2	POTENTIAL AREA OF INVESTIGATION 3	POTENTIAL AREA OF INVESTIGATION 4
<p>In a few words, describe what you would like to know more about within the topic:</p> <p>On a web sites, I need information to be easy to find, read, and shareable. It's not enough that the information is there. According the video, a lot of back-end design goes into my experience of the site content - likely, I do not even notice it. I'd like to know more the design process.</p>	<p>In a few words, describe what you would like to know more about within the topic:</p> <p>Designers likely employ standard trade practices that attract the consumer's attention, but they must also integrate the product into the image some how. The work of making "what's behind curtain" not only relevant, but attractive while remaining true to the product is interesting.</p>	<p>In a few words, describe what you would like to know more about within the topic:</p> <p>I am sure there are countless designs like the 8-track player that have come and gone throughout history - some for which history may have no record. There are other designs, like the wheel, which have persisted for as far back as we know. What makes a design last? What makes it obsolete?</p>
<p>Explain why you are interested in this:</p> <p>From a user's perspective, I rarely think about what goes into designing the way in which I interface with any given web site. But, when I think of why I like a particular site (i.e., information, entertainment, fun, social), I now recognize that it isn't just the content or purpose of the site, but the way I experience it.</p>	<p>Explain why you are interested in this:</p> <p>It seems curious to me that most of the products I love also have very "cool" logos/brands/slogans. I am sure this is no coincidence. I'd like to know what the designers were thinking when they designed my favorite brands.</p>	<p>Explain why you are interested in this:</p> <p>In my lifetime, MySpace went from the only social media platform, to the only one people won't be caught dead using. Innovation around design is rapid, but surely it wasn't the idea of social media that killed MySpace - it must have been other contributing factors.</p>
<p>Express your potential area of investigation as a question or problem:</p> <p>What choices and strategies do web designers have when designing web-sites to be successful with users?</p>	<p>Express your potential area of investigation as a question or problem:</p> <p>When developing a brand for a company or product, what do designers take into account in order to create the perfect brand?</p>	<p>Express your potential area of investigation as a question or problem:</p> <p>What factors contribute to a design becoming obsolete?</p>

TEXT-CENTERED DISCUSSIONS CHECKLIST		✓	COMMENTS
I. PREPARING	Reading & Research: I come to the discussion prepared, having read the text and/or researched the topic we are studying.	<input type="checkbox"/>	
	Engaging Actively: I pay attention to, respect, and work with all other participants in the discussion.	<input type="checkbox"/>	
	Participating Responsibly: I take a variety of roles in the discussion, and I follow the guidelines or agreements we have set for the conversation.	<input type="checkbox"/>	
II. ENGAGING AND PARTICIPATING	Recognizing Purpose & Goals: I understand the purpose and goals of our discussion or work, and I contribute to our progress.	<input type="checkbox"/>	
	Presenting Ideas Coherently: I present my ideas and claims clearly, using relevant evidence and well-chosen details from the text.	<input type="checkbox"/>	
	Communicating Clearly: When I talk with others, I make eye contact and speak in a clear, respectful voice so they can understand me.	<input type="checkbox"/>	
III. COMMUNICATING IDEAS, CLAIMS AND EVIDENCE	Posing Questions: I pose good questions that are centered on the text or topic and that help us think more deeply.	<input type="checkbox"/>	
	Responding to Questions: I respond to others' questions or comments by citing specific, relevant evidence and ideas.	<input type="checkbox"/>	
	Making Connections: I make valid and thoughtful connections and comparisons among my ideas and those of others.	<input type="checkbox"/>	
IV. QUESTIONING	Acknowledging Others: I pay attention to, acknowledge, and consider thoughtfully new information and ideas from others.	<input type="checkbox"/>	
	Qualifying or Justifying Views: I modify or further justify my ideas in response to evidence and ideas I have heard from others.	<input type="checkbox"/>	
V. LISTENING RESPECTFULLY			

Note: This checklist supports instruction of CCSS SL.1.



Name Topic

Area of Investigation

SOURCE	Title:	Location:	Publication Date:	Connection to Inquiry Paths:
#	Author:	Text Type:		
General Content / Key Ideas / Personal Comments:				
Credibility:	[] High [] Medium [] Low	Relevance/Richness: [] High [] Medium [] Low	Accessibility/Interest: [] High [] Medium [] Low	

SOURCE	Title:	Location:	Publication Date:	Connection to Inquiry Paths:
#	Author:	Text Type:		
General Content / Key Ideas / Personal Comments:				
Credibility:	[] High [] Medium [] Low	Relevance/Richness: [] High [] Medium [] Low	Accessibility/Interest: [] High [] Medium [] Low	

SOURCE	Title:	Location:	Publication Date:	Connection to Inquiry Paths:
#	Author:	Text Type:		
General Content / Key Ideas / Personal Comments:				
Credibility:	[] High [] Medium [] Low	Relevance/Richness: [] High [] Medium [] Low	Accessibility/Interest: [] High [] Medium [] Low	





Name Topic

Area of Investigation

SOURCE		Title:		Location: [The information recorded here should help locate the source. It can be a URL, the title of a magazine or newspaper, the name of a library, etc.]	
# [This unique number will be used for referencing]	Author:	Text Type:	Publication Date:		

STEP 1: Students look for and record basic information about the source. This information will be used for referencing purposes, as well as a first step in approaching and understanding the text. The teacher will be able to check that all the information is recorded.

General Content / Key Ideas / Personal Comments:

STEP 2: Students take personal notes to keep a record of general information about the source (e.g. first impressions, key content and ideas, relevance to research). Then students make connections between the content of the source and their Inquiry Questions, and note the reference of the Inquiry Themes that are addressed by this source. The teacher will be able to assess how the students capture essential information in a few words about a source, and how they connect them to their Inquiry Questions.

Connection to Inquiry Paths
[Use this box to record references to Inquiry Paths that are addressed in this source]

Credibility: [] High [] Medium [] Low **Relevance/Richness:** [] High [] Medium [] Low **Accessibility/Interest:** [] High [] Medium [] Low

STEP 3: Students use the Assessing Sources handout to think more deeply about the source and assess its credibility, richness and interest. Based on this assessment, students rate the source for future reference. These ratings as well as their personal comments will help students select the most suitable sources and decide which ones they will close read and make EBCs about. The teacher will be able to verify that students have assessed the source.





Name Model Topic Design

Area of Investigation What us sustainable design and why does it matter?

SOURCE	Title: What is Design?	Location: http://vimeo.com/5820010	Publication Date: 2010	Connection to Inquiry Paths: 1, 2, 3
# #1	Author: Lightweight Media (for the UK Design Council)	Text Type: Video		
General Content / Key Ideas / Personal Comments: This is a very engaging video that presents some great ways for thinking about what design actually is. It give lots of general examples and gives a model for understanding design as "the relationship between man-made things and people."				
Credibility:	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Relevance/Richness: <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low	Accessibility/Interest: <input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	

SOURCE	Title: Debating Sustainability	Location: http://www.nytimes.com/2010/02/01/arts/01iht-design1.html?pagewanted=all	Publication Date: January 31, 2010	Connection to Inquiry Paths: 1, 2
# #2	Author: Alice Rawsthorn	Text Type: Article		
General Content / Key Ideas / Personal Comments: Describes a conference on sustainable design where experts debated how to actually define sustainable design. Gives some examples of successful and unsuccessful sustainable projects to illustrate various features of sustainable design.				
Credibility:	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Relevance/Richness: <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low	Accessibility/Interest: <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low	

SOURCE	Title: Dow looks at sustainability big picture	Location: http://saskboy.wordpress.com/2012/01/23/arguing-against-sustainability/	Publication Date: June 3, 2013	Connection to Inquiry Paths: 1
# #3	Author: Jessica Holbrook	Text Type: Article		
General Content / Key Ideas / Personal Comments: This article discusses the role of product packaging in sustainable design. It talks about a major plastics company, Dow, and programs it has related to stainability.				
Credibility:	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low	Relevance/Richness: <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low	Accessibility/Interest: <input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low	





Name..... Area of Inv..... Date.....

AREA EVALUATION CHECKLIST		✓	COMMENTS
I. COHERENCE OF AREA <i>What is the area of investigation?</i>	The researcher can speak and write about the Area of Investigation in a way that makes sense to others and is clearly understood.	<input type="checkbox"/>	
II. SCOPE OF AREA <i>What do I need to know to gain an understanding of the area of investigation?</i>	The questions necessary to investigate for gaining an understanding require more than a quick review of easily accessed sources. The questions are reasonable enough so that the researcher is likely to find credible sources that address the issue in the time allotted for research.	<input type="checkbox"/>	
III. RELEVANCE OF AREA <i>How is this Area of Investigation related to a larger topic?</i>	The Area of Investigation is relevant to the larger topic.	<input type="checkbox"/>	
IV. INTEREST IN AREA <i>Why are you interested in this Area of Investigation?</i>	The researcher is able to communicate genuine interest in the Area of Investigation. Gaining an understanding of the area would be valuable for the student.	<input type="checkbox"/>	

In one or two sentences express the potential area of investigation in the form of a problem or overarching question:

.....

.....

.....

POSING INQUIRY QUESTIONS

Successful research results from posing good inquiry questions. When you have to solve a difficult problem or want to investigate a complex idea or issue, **developing questions about things you need to know helps guide your research and analysis**. But not all questions are created equal. Some lead to dead ends, while others open up vistas of knowledge and understanding...or best of all: *more questions!*

GENERATING QUESTIONS

Generating questions is most fun and effective with friends—the more minds the merrier. And **starting with lots of questions** helps you find the best ones. When brainstorming questions, consider many things about your area of investigation, for instance:

- **How is it defined?**
- **Where did it originate?**
- **What is its history?**
- **What are its important places, things, people, and experts?**
- **What are its major aspects?**
- **What are its causes and implications?**
- **What other things is it connected to or associated with?**

SELECTING AND REFINING QUESTIONS

Once you have a huge list of possible questions, select and refine them by asking yourself a few things about them:

Are you genuinely interested in answering your question?

Research requires hard work and endurance. If you don't care about your questions you won't do the work to answer them. The best questions are about things you actually want and need to know.

Can your question truly be answered through your research?

Some questions are unanswerable (How many walnuts are there in the world?) or take years to answer (What is the meaning of life?) Your inquiry questions must put you on a reachable path.

Is your question clear?

Can you pose your question in a way that you and others understand what you are asking? If it's confusing, then perhaps you are asking more than one thing. That's great: just break it into two questions. The more good inquiry questions you have the better.

What sort of answers does your question require?

Interesting, meaningful research comes from interesting questions. Good inquiry questions are rich enough to support lots of investigation that may even lead to multiple answers, and more questions. Questions that can be answered with a simple YES or NO generally do not make good inquiry questions.

Do you already know what the answer is?

Good inquiry questions are actually questions. If you already have answered the questions for yourself, then you won't really be inquiring through your research. If you already know what you think, then you won't get the true reward of research: a deeper knowledge and understanding of things you want to know about.

RESEARCH CRITERIA MATRIX GRADES 6-12

CRITERIA	G 6 INDICATORS	G 7-8 INDICATORS	G 9-10 INDICATORS	G11-12 INDICATORS
I. SETTING DIRECTION FOR INQUIRY AND RESEARCH				
Setting direction for research: Identifies a general research problem or area. [W7]	States what he/she wants to know based on a provided research problem or area of investigation.	States what he/she wants to know based on a provided or self-generated research problem or area of investigation.	States what he/she wants to know, identifies a research problem, and/or frames or responds to broad direction setting questions.	States what he/she wants to know, identifies a concise and feasible research problem, and/or frames or responds to broad direction setting questions.
Posing inquiry questions: Poses a variety of relevant questions of appropriate focus, scope, and utility. [W7]	Brainstorms questions relevant to research problem or area of investigation in a group.	Asks a variety of questions of appropriate scope and utility to direct inquiry.	Identifies themes and patterns after brainstorming several questions and categorizes them into inquiry paths.	After brainstorming, creates concrete inquiry paths, and writes focused questions for each inquiry path.
Framing inquiry paths: Identifies possible paths for research and frames inquiry questions related to each path. [W7]	Uses a variety of questions of appropriate scope and utility to address inquiry.	Identifies themes and patterns after brainstorming several questions and categorizes them into broad inquiry paths.	Asks a variety of questions of appropriate scope and utility to address inquiry paths.	Poses increasingly focused questions of appropriate scope and utility to address inquiry paths.
II. MANAGING AND EVALUATING RESEARCH PROCESSES				
Developing research strategies: Develops, records and communicates a strategic research plan to address inquiry questions. [W7]	Follows a strategic plan for research to address inquiry questions.	Develops and records a strategic plan for research to address inquiry questions.	Develops and records a coherent plan for research based on inquiry question or problem.	Develops and records a coherent plan for research that reflects a purposeful and clear understanding of the inquiry question or problem.
Monitoring and evaluating progress: Monitors direction and content of research to assess its progress and sufficiency. [W7]	Evaluates research to determine if information is sufficient to address inquiry questions.	Evaluates research progress and determines if information is sufficient to address inquiry paths and questions.	Periodically checks on research progress and determines if information is sufficient to address inquiry paths and questions.	Continuously monitors direction and content of research, assessing the quality and sufficiency of information to address inquiry paths and questions.
Collaborating and responding to feedback: Participates in discussions and peer reviews; considers peer feedback when setting/refocusing direction for research. [W7; SL1,4]	Discusses a viewpoint of the topic with peers. Uses feedback to guide further research.	Shares in discussion his/her viewpoint of the research topic. Uses feedback to guide planning and decision making.	Expresses a comprehensive viewpoint of his/her topic in discussion . Uses peer feedback to guide planning and decision making.	Expresses a comprehensive viewpoint of his/her topic in discussion, citing specific strengths and deficiencies in answering their inquiry questions. Responds to feedback from peer reviews thoughtfully and strategically.
Refocusing inquiry: Analyzes and revises questions and inquiry paths in light of emerging research and feedback; narrows, broadens, or extends research based on revised research plan. [W7]	Reviews and refines research material in response to evaluation and feedback.	Expands inquiry based on reviews of annotations, notes and feedback.	Makes decisions on research direction based on reviews of annotations and notes and relevance to inquiry questions.	Makes strategic decisions and changes in inquiry paths based on reviews of annotations and notes, and assessments of sources.

CRITERIA	G 6 INDICATORS	G 7-8 INDICATORS	G 9-10 INDICATORS	G 11-12 INDICATORS
III. GATHERING AND ASSESSING SOURCES				
Conducting inquiry-driven searches: Conducts searches for sources of information that directly relate to inquiry questions. [W8]	Understands that texts can be sources of information for addressing inquiry questions.	Uses inquiry questions to drive research and identify sources.	Uses inquiry questions and strategic searches to drive research and identify sources.	Uses inquiry questions for all inquiry paths and strategic searches to identify relevant sources.
Assessing sources for credibility and relevance: Assesses sources for credibility of information and utility for research purposes. [W8]	Assesses whether a source is credible and identifies relevant information to the inquiry question.	Assesses whether a source is credible and distinguishes between information that helps or does not help advance the inquiry question.	Assesses sources for credibility; identifies the utility of a source and explains why a particular source does or does not help respond to an inquiry question.	Assesses sources for credibility; identifies and accurately rates the utility of several sources; explains why sources do or do not help advance an inquiry path.
Assessing/comparing perspectives and bias: Assesses sources for their perspective and potential bias on the research topic; compares perspectives across multiple sources. [W8]	Identifies differences in perspectives in various sources.	Identifies the perspectives and/or biases in various sources as related to the topic and inquiry path.	Identifies the perspectives and/or biases in various sources as related to the topic and inquiry path.	Identifies the perspective and/or bias of a potential source, accurately describes its utility, and purges source if necessary. Compares and balances perspectives across multiple sources.
Redirecting searches: Redirects searches in response to new knowledge and inquiry questions.	Identifies new information relevant to the inquiry question and how it impacts the inquiry question.	Detects necessary changes to inquiry path questions and adjusts the search accordingly.	Detects necessary changes to inquiry path questions and adjusts the search accordingly.	Critically compares and contrasts inquiry questions with new information in potential sources and adjusts the search accordingly.
IV. ANALYZING / INTEGRATING / SYNTHESIZING INFORMATION				
Analyzing sources for inquiry purposes: Reads sources closely and analyzes their details, ideas, language, and perspective in relationship to inquiry questions. [W8]	Identifies and takes notes of relevant details, ideas, language, and perspectives.	Identifies and takes notes of relevant details, ideas, language, and perspectives.	Analyzes details, ideas, language, and perspectives, and takes notes for each source to determine how it addresses inquiry questions.	Analyzes details, ideas, language, and perspective and takes detailed notes for each source to determine how it addresses inquiry questions.
Evaluating sources for evidence, claims, and arguments: Delineates and analyzes sources' claims, supporting evidence, and argumentation; evaluates sufficiency of evidence and validity of reasoning. [W9]	Identifies the source's main claims and whether they are supported with evidence.	Identifies the source's main claims and supporting evidence; evaluates argument's validity based on evidence and reasoning.	Identifies the source's main claims and supporting evidence; evaluates argument's validity based on evidence and reasoning.	Delineates and analyzes a source's claims and arguments; evaluates sufficiency of evidence and validity of reasoning.
Identifying fallacious or unsupported reasoning: Challenges and/or rejects sources that present unsupported claims, fallacious reasoning, and/or overly biased perspectives. [W9]	Identifies claims or arguments that are not supported by evidence.	Explains how a source does not support its claims and arguments with valid or substantial evidence.	Explains how a source does not support its claims and arguments with valid or substantial evidence.	Challenges and/or rejects sources that present unsupported claims, fallacious reasoning, and/or overly biased perspectives.
Integrating information across sources: Integrates and synthesizes relevant ideas and information from multiple sources to develop evidence-based claims that are aligned with inquiry questions. [W7,8]	Gathers details and ideas from multiple sources to address the inquiry question; develops an evidence-based claim that responds to an inquiry question(s).	Synthesizes details and ideas from multiple sources to address an inquiry path; develops an evidence-based claim that responds to an inquiry question(s).	Synthesizes details and ideas from multiple sources to address an inquiry path; organizes details into distinct paths/questions; develops an evidence-based claim that responds to an inquiry question(s).	Synthesizes details and ideas from multiple sources that address inquiry paths and recognizes paths/questions with insufficient support; develops concise evidence-based claims that are aligned with supported inquiry questions.
Demonstrating understanding: Produces a set of evidence-based claims that demonstrate accurate and deepening understanding of the research topic. [W7,8,9]	Produces claims reflecting grade appropriate complexity that are supported by researched evidence and that indicate an understanding of the research topic.	Produces claims reflecting grade appropriate complexity that are supported by researched evidence and that indicate increased understanding of the research topic.	Produces claims reflecting grade appropriate complexity that are supported by researched evidence and that indicate accurate understanding of the research topic.	Produces a comprehensive and integrated set of evidence-based claims that demonstrates accurate and deepening understanding of the research topic.

CRITERIA	G 6 INDICATORS	G 7-8 INDICATORS	G 9-10 INDICATORS	G 11-12 INDICATORS
V. RECORDING AND ORGANIZING INFORMATION				
Annotating sources and noting connections and observations: Makes notes that identify key information and express insightful, supported observations and connections. [W8]	Marks key information in sources, takes notes on initial impressions and connections across multiple sources.	Marks key information in sources, takes notes of initial impressions, identifies additional research needs, and inserts codes to link information to inquiry paths.	Marks key information in sources, takes notes of initial impressions, identifies additional research needs, and inserts codes to link information to inquiry paths.	Marks key information in sources, takes notes on initial impressions, connections, identifies additional research routes, inserts codes to link information to inquiry paths.
Paraphrasing, quoting and referencing sources: Records relevant and important information by quoting or accurately paraphrasing; accurately cites location of noted information. [W7,8]	Accurately paraphrases the source and provides a citation when directly quoting from the source.	Accurately paraphrases the source and provides accurately citation according to a standard format (i.e. MLA, APA, etc.) when directly quoting from the source.	Accurately paraphrases the source and provides accurately citation according to a standard format (i.e. MLA, APA, etc.) when directly quoting from the source.	Accurately and concisely paraphrases relevant information from sources and uses proper citation according to a standard format (i.e. MLA, APA, etc.) when directly quoting from the source.
Reorganizing information based on deepening understanding: Re-organizes information based on deepened understanding of topic and refines inquiry questions. [W7]	Reviews information in notes for patterns, ideas, and evidence related to research questions.	Reviews information in notes for patterns, ideas, and evidence related to research questions; refines inquiry questions accordingly.	Purposefully reviews information in notes for patterns, ideas, and evidence related to research questions; refines inquiry questions accordingly.	Critically reviews information in notes for patterns, ideas, and evidence related to research questions; re-organizes notes and information to best address evolving inquiry paths; refines inquiry questions and/or paths accordingly.
Organizing researched information: Organizes researched information into logical categories that address inquiry paths and provide structure for communication and writing. [W7, 8]	Organizes annotations and notes from multiple sources to set a clear and useable structure and sequence for writing and discussion.	Organizes annotations and notes from multiple resources into relevant inquiry paths to set a clear and useable structure and sequence for writing and discussion.	Organizes annotations and notes from multiple resources into relevant inquiry paths to set a clear and useable structure and sequence for writing and discussion.	Organizes annotations and notes from multiple resources into relevant inquiry paths and makes connections within the research framework to set a coherent and unified structure for research-based arguments and/or other communications.

VI. DEVELOPING AND COMMUNICATING AN EVIDENCE-BASED PERSPECTIVE				
Forming a position: Forms a position that accounts for various paths of inquiry and is supported by researched evidence. [W9]	States an understanding of the topic that has resulted from and is supported by researched information.	States an understanding, position or perspective that has resulted from and is supported by researched information.	States a concise understanding, position or perspective that has resulted from and is supported by researched information.	Forms, develops, and communicates a precise position or perspective that is directly and strongly supported by evidence from research.
Supporting claims: Identifies and organizes evidence to support analysis and claims derived from sources. [W9]	Compiles and organizes evidence from research to support claims and explain an understanding of the topic.	Compiles and organizes evidence from research to support claims and develop an understanding, position, or perspective.	Compiles and organizes evidence from research to support claims and develop a clear position or perspective.	Strategically analyzes and organizes valid and sufficient researched evidence to develop and support a clear position or perspective.
Synthesizing information to meet research purposes: Connects claims to form a coherent and supported perspective; organizes researched analysis to support desired purposes. [W9]	Links evidence-based claims into a logical sequence to explain a coherent understanding of the topic.	Analyzes relationships among evidence-based claims and links them into a logical sequence to develop clear a, position or perspective.	Analyzes relationships among evidence-based claims and links them into a logical sequence to develop a position or perspective.	Analyzes relationships among evidence-based claims and links them into a coherent, logical sequence as premises in an evidence-based argument or components of a supported explanation of a position or perspective.
Communicating a position: Communicates a position for specific audiences by using a logical sequence of analysis. [W9]	Based on identified purpose, produces a plan, explanation, argument, or reflective narrative that communicates a defensible research-based perspective and its component claims.	Based on identified purpose, produces a plan, explanation, argument, or reflective narrative that communicates a defensible research-based perspective and its component claims.	Based on identified purpose, produces a plan, explanation, argument, or reflective narrative that communicates a defensible research-based perspective and its component claims.	Based on identified purpose, produces a plan, explanation, argument, or reflective narrative that communicates an insightful and defensible research-based perspective and its component claims.

ASSESSING SOURCES

ASSESSING A SOURCE TEXT'S CREDIBILITY

Look at the information you can find about the text in the areas below, and consider the following questions to assess a source text's credibility:

PUBLISHER	DATE	AUTHOR	TYPE
<ul style="list-style-type: none"> What is the publisher's relationship to the topic area? What economic stake might the publisher have in the topic area? What political stake might the publisher have in the topic area? 	<ul style="list-style-type: none"> When was the text first published? How current is the information on the topic? How does the publishing date relate to the history of the topic? 	<ul style="list-style-type: none"> What are the author's qualifications/credentials relative to the topic area? What is the author's personal relationship to the topic area? What economic/political stakes might the author have in the topic area? 	<ul style="list-style-type: none"> What type of text is it: explanation, informational article, feature, research study, op/ed, essay, argument, other? What is the purpose of the text with respect to the topic area?

ASSESSING A SOURCE TEXT'S ACCESSIBILITY AND INTEREST LEVEL

Consider your initial experience in reading the text, how well you understand it, and whether it seems interesting to you:

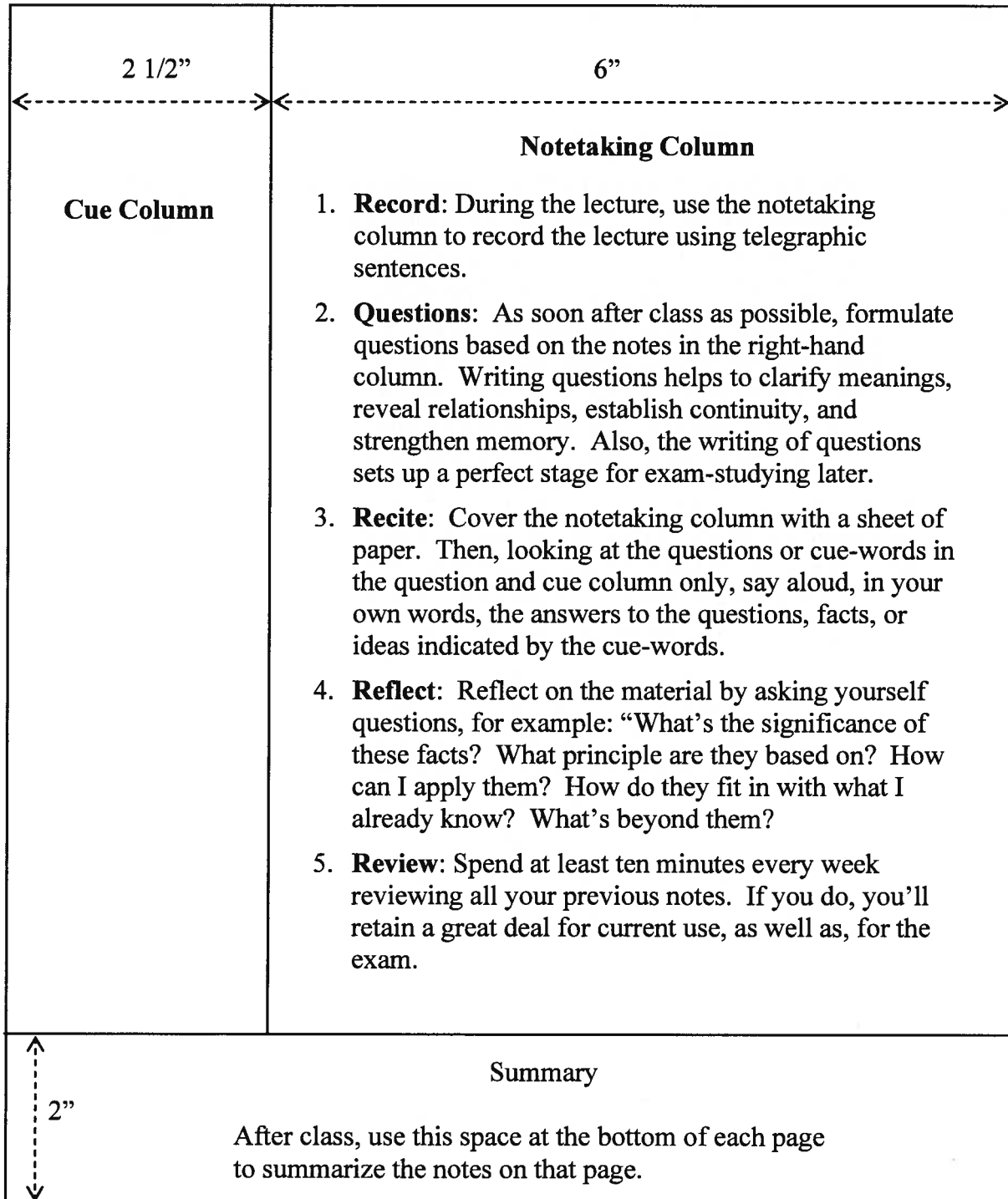
ACCESSIBILITY TO YOU AS A READER	INTEREST AND MEANING FOR YOU AS A READER
<ul style="list-style-type: none"> Am I able to read and comprehend the text easily? How do the text's structure and formatting either help or hinder me in reading it? Do I have adequate background knowledge to understand the terminology, information, and ideas in the text? 	<ul style="list-style-type: none"> Does the text present ideas or information that I find interesting? Which of my Inquiry Paths will the text provide information for? Which inquiry questions does the text help me answer? How?

ASSESSING A SOURCE TEXT'S RELEVANCE AND RICHNESS

Using your Research Frame as a reference, answer the following questions:

RELEVANCE TO TOPIC & PURPOSE	RELEVANCE TO AREA OF INVESTIGATION	SCOPE AND RICHNESS
<ul style="list-style-type: none"> What information does the text provide on the topic? How might the text help me accomplish the purpose for my research? Does the text provide accurate information? 	<ul style="list-style-type: none"> How is the text related to the specific area I am investigating? Which of my paths of inquiry might the text provide information for? Which inquiry questions might the text help me address? How? 	<ul style="list-style-type: none"> How long is the text and what is the scope of the topic areas it addresses? How extensive and supported is the information it provides? How does the information in the text relate to other texts?

The Cornell Note-taking System





Name

Inquiry Question/Path

REF.	DETAILS	COMMENTS
<p>Source # and location in the source:</p>	<p>I record details, ideas, or information that I find in my sources that help me answer my inquiry questions:</p> <div data-bbox="321 478 863 890" style="border: 1px dashed black; padding: 10px;"> <p>In this column, students write a series of details drawn from their sources. These details can be citations, facts and numbers, or ideas that they reformulate in their own words. These details can NOT be personal comments of views on the source. <u>The teacher can assess the students' ability to select important and relevant details in a source, and how they chose to express these details in the scope of using them for their research purpose.</u></p> </div> <div data-bbox="149 989 451 1478" style="border: 1px dashed black; padding: 10px;"> <p>Students must provide the Source number as well as the page/ line/ paragraph/ or other reference in order to locate the detail within the source. <u>The teacher will make sure that every detail is referenced and therefore know how and where the student found them.</u></p> </div>	<p>I explain the reason why I think they are important, and write personal comments:</p> <div data-bbox="938 478 1458 989" style="border: 1px dashed black; padding: 10px;"> <p>In this column, students explain why they think each detail that they chose is important. This will encourage students to make relevant choices as opposed to writing random details. It will also push them to think about their sources and the information they contain with respect to their Research Frame, and help them establish connections as they process the information. <u>The teacher can assess the students' ability to explain their choices, to follow their Research Frame, and to establish connections.</u></p> </div>



Name Model

Inquiry Question/Path How does sustainable design influence humanity's relationship to the world?

REF.	DETAILS	COMMENTS
Source # and location in the source: Source #2 Debating P. 1, 2, 6	I record details, ideas, or information that I find in my sources that help me answer my inquiry questions: Sustainability is one of the most pressing issues in the design conversation. Sustainable design helps people live responsible, ethical lives. At issue, however, is a lack of consensus over what constitutes sustainable design.	I explain the reason why I think they are important, and write personal comments: People who want to lead ethical lives likely do not want to harm the planet or others if possible. Sustainable design potentially offers ways to not only avoid harm, but also to promote good in the world. But what if someone doesn't want to or can't be ethical?
#2 Debating P. 1	Sustainable design does not simply incorporate "renewable" or "reusable" resources; nor is it solely about saving the planet. It is also about improving the lives of others. S.H.E. not only sources local, eco-friendly materials for its sanitary products, but most importantly helps girls and women not miss work/school during their periods.	The way people interact with the world and with each other is shaped by design. Without certain designs, certain people's experiences of the world and others is compromised. Innovative ideas like S.H.E. is a particularly important example of the multi-layered affects and possibility of sustainable design.
Source #7 Cradle min. :55-1:20	Speaking about a rubber duck sold in CA with a warning concerning its cancer- and birth-defects causing chemicals, McDonough asks, "What kind of culture would produce a product of this kind, and then label it, and sell it to children? I think we have a design problem."	If someone knowingly gave a child cancer, we would consider that person a bad person; we would likely incarcerate them. So, why, through a designed product, do we permit it? It seems we need education around these problems, possible solutions, and our options.
Source #10 B'berg's \$20B	With 53% of all of NYC's power plants in neighborhoods threatened by storms (By 2050, 97% will be), a plan to protect them is a priority for city leaders.	In the face of a changing climate and given its vulnerable coastal geography, a city as important as NYC, with its 7m people, must effectively address how it stay safe. Sustainable design is also about protecting lives.



Name Topic

Area of Investigation

INQUIRY PATH	INQUIRY PATH	INQUIRY PATH
<p>Reference: IP #</p> <p>Name this Inquiry Path in the form of a brief description or question:</p>	<p>Reference: IP #</p> <p>Name this Inquiry Path in the form of a brief description or question:</p>	<p>Reference: IP #</p> <p>Name this Inquiry Path in the form of a brief description or question:</p>
<p>List all the questions in this Inquiry Path:</p>	<p>List all the questions in this Inquiry Path:</p>	<p>List all the questions in this Inquiry Path:</p>





Name Model!..... Topic Design.....

Area of Investigation What is sustainable design and why does it matter?.....

INQUIRY PATH	INQUIRY PATH	INQUIRY PATH
<p>Reference: IP # 1</p> <p>Name this Inquiry Path in the form of a brief description or question:</p> <p>What are the basic components of sustainable design?</p> <p>List all the questions in this Inquiry Path:</p> <p>What are the laws, policies, and standards surrounding sustainable design (i.e., LEED).</p> <p>What role does "retrofitting" play in sustainable design?</p> <p>How will new sustainable designs be evaluated for quality and effectiveness?</p> <p>Is there a perfect "life-cycle" design that has limitless utility and effectiveness?</p> <p>What factors contribute to deciding that sustainable design is necessary?</p>	<p>Reference: IP # 2</p> <p>Name this Inquiry Path in the form of a brief description or question:</p> <p>How does sustainable design influence humanity's relationship to the world?</p> <p>List all the questions in this Inquiry Path:</p> <p>What relationships do I have with the world and others that involve obvious and hidden design elements?</p> <p>In what ways do these designs influence my view of the world? In other words - the more "green" designs that are out there, the more messaging I'm getting that we need to do something to save the planet.</p> <p>How do these designs shape how I perceive my identity in terms of these relationships (e.g., am a good person because I drive a hybrid car?)?</p> <p>How do I view others who reject, are not current, or simply do not employ sustainable design in their lives?</p>	<p>Reference: IP # 3</p> <p>Name this Inquiry Path in the form of a brief description or question:</p> <p>What are society's major influencing factors in terms of sustainable design?</p> <p>List all the questions in this Inquiry Path:</p> <p>What key statistics (i.e., climate change, population, fossil fuels, etc.) demonstrate the need for sustainable design?</p> <p>How do personal ethics and world views play into these types of decisions?</p> <p>How do we know which designs to choose?</p> <p>In what ways can policy and markets influence a trend toward sustainability? How can policy makers influence our use of sustainable designs (i.e., laws, tax breaks)?</p> <p>What do I think about an individual's right to not use sustainable designs?</p> <p>How will class, socio-economic factors, gender, and race play into sustainable design, both in terms of access and use?</p>

RESEARCH PORTFOLIO DESCRIPTION

The Research Portfolio helps you store and organize your findings and analysis throughout every step of the research process. Various tools help you develop a research strategy and record, analyze and annotate your sources. Every time you complete a tool or annotate a source, file it in the corresponding section of your portfolio. Keeping an organized portfolio helps you make connections, see what you already have, and determine what you still have left to investigate. It will also provide everything you need to write your conclusions when you finish your research. The portfolio may be in either electronic or paper format.

PORTFOLIO SECTIONS	CONTENT
<p>SECTION 1: DEFINING AN AREA OF INVESTIGATION</p> <p><i>This section stores all the work you do exploring the topic and choosing an Area of Investigation.</i></p>	<p>Exploring a Topic Area Evaluation Checklist Potential Sources (from pre-searches)</p>
<p>SECTION 2: GATHERING AND ANALYZING INFORMATION</p> <p><i>This section stores all the information you gather throughout your investigation. It also stores your notes and analysis of sources. All the tools should be grouped by source.</i></p>	<p>Potential Sources Annotated Sources Personal Drafts Taking Notes (about sources) Forming EBC</p>
<p>SECTION 3: DRAWING CONCLUSIONS</p> <p><i>This section stores your Notes and EBCs about Inquiry Paths, your research evaluations, and the personal perspective that you come to at the end of your inquiry. Group the Taking Notes, Forming EBC or Organizing EBC by Inquiry Path.</i></p>	<p>Taking Notes (about Inquiry Paths) Forming EBC Organizing EBC Synthesizing EBC Research Evaluation Evidence-Based Perspective</p>
<p>SECTION 4: DISCARDED MATERIAL</p> <p><i>This section stores all the sources and analysis that you have discarded throughout your investigation. The purpose of this section is to keep a record of discarded materials until the end of the research process in case you change your mind and want to use them.</i></p>	



Name Source(s) #

Inquiry Question:

SEARCHING FOR DETAILS

I read the sources closely and mark words and phrases that help me answer my question.

SELECTING DETAILS

I select words or phrases from my search that I think are the most important for answering my question. I write the reference next to each detail.

Detail 1 (Ref.:)

Detail 2 (Ref.:)

Detail 3 (Ref.:)

ANALYZING AND CONNECTING DETAILS

What I think about the details and how I connect them:

I re-read parts of the texts and think about the meaning of the details and what they tell me about my question. Then I compare the details and explain the connections I see among them.

MAKING A CLAIM

My claim that answers my inquiry question:

I state a conclusion I have come to and can support with evidence from the texts after reading them closely.

FORMING EVIDENCE-BASED CLAIMS

Inquiry Question: I use my inquiry question to guide my reading and focus my attention on details for answering it.

SEARCHING FOR DETAILS

SELECTING DETAILS

I select words or phrases from my search that I think are the most important for answering my question. I write the reference next to each detail.

As I read, I notice authors use a lot of details and strategies to develop their points and arguments. Below are examples of types of details authors often use in important ways.

- Author's Facts and Ideas**
- Statistics
 - Examples
 - Vivid description
 - Characters/actors
 - Events

- Author's Words and Organization**
- Repeated words
 - Strong language
 - Figurative language
 - Tone
 - Organizational structure/phrases

- Opinions and Point of View**
- Interpretations
 - Explanation of ideas or events
 - Narration
 - Personal reflection
 - Beliefs

ANALYZING AND CONNECTING DETAILS

I re-read parts of the texts and think about the meaning of the details and what they tell me about my question. Then I compare the details and explain the connections I see among them.

By reading closely and thinking about the details, I can make connections among them. Below are some ways details can be connected.

Facts and Ideas

- Authors use hard facts to illustrate or define an idea.
- Authors use examples to express a belief or point of view.
- Authors use vivid description to compare or oppose different ideas.
- Authors describe different actors or characters to illustrate a comparison or contrast.
- Authors use a sequence of events to arrive at a conclusion.

Words and Organization

- Authors repeat specific words or structures to emphasize meaning or tone.
- Authors use language or tone to establish a mood.
- Authors use figurative language to infer emotion or embellish meaning.
- Authors use a specific organization to enhance a point or add meaning.

Opinions and Point of View

- Authors compare or contrast evidence to help define their point of view.
- Authors offer their explanation of ideas or events to support their beliefs.
- Authors tell their own story to develop their point of view.
- Authors use language to reveal an opinion or feeling about a topic.

MAKING A CLAIM

I state a conclusion I have come to and can support with evidence from the texts after reading them closely.

As I analyze and connect the details, I can answer my inquiry question based on evidence from the texts.

Inquiry Question: How does sustainable design influence humanity's relationship to the world?

SEARCHING FOR DETAILS

I read the sources closely and mark words and phrases that help me answer my question.

SELECTING DETAILS

I select words or phrases from my search that I think are the most important for answering my question. I write the reference next to each detail.

Detail 1 (Ref.: Cradle to Cradle)

McDonough highlights our intellectual malnutrition as it concerns design, i.e., we create poisonous children's toys and show little demonstrable interest in protecting the environment despite how much it enhances our lives.

Detail 2 (Ref.: Bloomberg plan)

NYC faces possible natural annihilation; millions of lives, and the global economy are at stake. Mayor Bloomberg's proposal, albeit as ambitious as it is unclear, aims to fortify the city from the ravages of storms

Detail 3 (Ref.: Sorry Green Design)

"But sustainability turned out to be unsustainable. We just didn't have the time; we couldn't afford to be green. We thought the products looked ugly. We didn't enjoy the preachiness or the guilt."

ANALYZING AND CONNECTING DETAILS

I re-read parts of the texts and think about the meaning of the details and what they tell me about my question. Then I compare the details and explain the connections I see among them.

What I think about the details and how I connect them:

The environmentally questionable devices we continue to use teach and perpetuate our pending planetary is the result of thoughtful design, what we communicate about how the world be should is regularly inconsistent with our everyday behaviors. Despite our knowledge, morals, and intentions, we are not getting it right. In part, this is the result of human laziness, the other is the result of society's requirement not simply for products that improve our lives and the world, but also the easy to which we can assimilate. Unfortunately - especially in the face of obvious global and humanitarian crises - we cannot even agree on what we need. We believe we need sustainable design, yet despite rapid and impressive design concepts and scientific advancements supporting them, our will is lagging (not lacking!).

MAKING A CLAIM

I state a conclusion I have come to and can support with evidence from the texts after reading them closely.

My claim that answers my inquiry question:

Sustainable design seeks to enhance, expand, and improve the ways in which people relate to the world. If people value improved relations with the world and its inhabitants, we should demand it and our leaders should demonstrate the will to achieve it.

EVIDENCE-BASED CLAIMS CRITERIA CHECKLIST

COMMENTS

I. CONTENT AND ANALYSIS
An EBC is a clearly stated inference that arises from reading texts closely.

Clarity of the Claim: States a conclusion that you have come to after reading and that you want others to think about.

Conformity to the Text: Is based upon and linked to the ideas and details you have read.

Understanding of the Topic: Demonstrates knowledge of and sound thinking about a text or topic that matters to you and others.

II. COMMAND OF EVIDENCE
An EBC is supported by specific textual evidence and developed through valid reasoning.

Reasoning : All parts of the claim are supported by specific evidence you can point to in the text(s).

Use and Integration of Evidence: Uses direct quotations and examples from the text(s) to explain and prove its conclusion.

Thoroughness and Objectivity: Is explained thoroughly and distinguishes your claim from other possible positions.

III. COHERENCE AND ORGANIZATION

An EBC and its support are coherently organized into a unified explanation.

Relationship to Context: States where your claim is coming from and why you think it is important.

Relationships among Parts: Groups and presents supporting evidence in a clear way that helps others understand your claim.

Relationship to Other Claims: Can be linked with other claims to make an argument.

IV. CONTROL OF LANGUAGE AND CONVENTIONS

An EBC is communicated clearly and precisely, with responsible use/ citation of supporting evidence.

Clarity of Communication: Is clearly and precisely stated, so that others understand your thinking.

Responsible Use of Evidence: Quotes from the text accurately.

WRITING EVIDENCE-BASED CLAIMS

Writing evidence-based claims is a little different from writing stories or just writing about something. You need to **follow a few steps** as you write.

1. ESTABLISH THE CONTEXT

Your readers must know **where your claim is coming from** and **why it's important**.

Depending on the scope of your piece and the claim, the context differs. If your whole piece is one claim or if you're introducing the first major claim of your piece, the entire context must be given:

In his speech to Stanford graduates in 2005, Steve Jobs tells a story...

Purposes of evidence-based writing vary. In some cases, naming the article and author is enough to show why your claim is important. In other cases, you might want to give more information:

Steve Jobs led an inspirational life. In his speech to Stanford graduates in 2005, Steve Jobs tells a story...

If your claim is part of a larger piece with multiple claims, then the context might be simpler:

According to Jobs,... *or* In paragraph 5, Jobs claims...

2. STATE YOUR CLAIM CLEARLY

How you state your claim is important; it must **clearly and fully express your ideas**.

Figuring out how to state claims is a **process**. Writers revise them continually as they write their supporting evidence. Here's a claim about Jobs' speech:

In his speech to Stanford graduates in 2005, Steve Jobs tells a story "about death" because he wants the graduates to realize something he has learned from having cancer: that death is a necessary part of life, which should influence how people live.

Remember, you should continually return and re-phrase your claim as you write the supporting evidence to make sure you are capturing exactly what you want to say. Writing out the evidence always helps you figure out what you really think.

3. ORGANIZE YOUR SUPPORTING EVIDENCE

Most claims contain multiple parts that require different evidence and should be expressed in separate paragraphs. This claim can be **broken down into two parts**:

A description of how **HAVING CANCER CAUSED JOBS TO FACE DEATH**
and
how **JOBS THINKS DEATH SHOULD SHAPE HOW PEOPLE LIVE**.

3. ORGANIZE YOUR SUPPORTING EVIDENCE (CONT'D)

Here are two paragraphs that support the claim with evidence organized into these two parts.

A description of how HAVING CANCER CAUSED JOBS TO FACE DEATH:

In his speech to Stanford graduates in 2005, Steve Jobs tells a story “about death” because he wants the graduates to realize something he has learned from having cancer: that death is a necessary part of life, which should influence how people live. When Jobs was first diagnosed with pancreatic cancer, he was told that it was incurable and that he would not live long (107-108). Knowing he might die from cancer caused him to remember something he had thought since he was 17, that he should live every day as if it were his last (lines 95-7).

A description of the JOBS THINKS DEATH SHOULD SHAPE HOW PEOPLE LIVE:

In lines 120-1, Jobs introduces his message and tells the graduates that he can state his ideas “with a bit more certainty than when death was a useful but purely intellectual concept.” In paragraph 21, he states several claims that explain how he now views death. He describes Death as “the single best invention of life” and “life’s change agent” because it “clears out the old to make way for the new” (124-125). Jobs’ story about his cancer explains something he has said earlier in paragraph 17: “Remembering that I’ll be dead soon is the most important tool I’ve ever encountered to help me make the big choices in life.” Steve Jobs is telling the graduates that they should live their lives in a meaningful way, because, like him, they never know when life might end.

Notice the phrase, “In lines 120-1, Jobs introduces his message” starting the second paragraph. **Transitional phrases** like this one aid the organization by showing how the ideas relate to each other.

4. PARAPHRASE AND QUOTE

Written evidence from texts can be paraphrased or quoted. It’s up to the writer to decide which works better for each piece of evidence. Paraphrasing is **putting the author’s words into your own**. This works well when the author originally expresses the idea you want to include across many sentences. You might write it more briefly. The second line from the first paragraph paraphrases the evidence from Jobs’ text. The ideas are his, but the exact way of writing is not.

When Jobs was first diagnosed with pancreatic cancer, he was told that it was incurable and that he would not live long (107-108).

Some evidence is better quoted than paraphrased. If an author has found the quickest way to phrase the idea or the words are especially strong, you might want to **use the author’s words**. The third line from paragraph 2 quotes Jobs exactly, incorporating his powerful phrases.

He describes Death as “the single best invention of life” and “life’s change agent” because it “clears out the old to make way for the new” (124-125).

5. REFERENCE YOUR EVIDENCE

Whether you paraphrase or quote the author’s words, you must include **the exact location where the ideas come from**. Direct quotes are written in quotation marks. How writers include the reference can vary depending on the piece and the original text. Here the writer puts the line numbers from the original text in parentheses at the end of the sentence.

CONNECTING IDEAS

USING TRANSITIONAL WORDS AND PHRASES

Transitional words and phrases create links between your ideas when you are speaking and writing. They help your audience understand the logic of your thoughts. When using transitional words, make sure that it is the right match for what you want to express. And remember, transition words work best when they are connecting two or more strong ideas that are clearly stated. Here is a list of transitional words and phrases that you can use for different purposes:

ADD RELATED INFORMATION	GIVE AN EXAMPLE OR ILLUSTRATE AN IDEA	MAKE SURE YOUR THINKING IS CLEARLY UNDERSTOOD	COMPARE IDEAS OR SHOW HOW IDEAS ARE SIMILAR	CONTRAST IDEAS OR SHOW HOW THEY ARE DIFFERENT
<ul style="list-style-type: none"> furthermore moreover too also again in addition next further finally and, or, nor 	<ul style="list-style-type: none"> to illustrate to demonstrate specifically for instance as an illustration for example 	<ul style="list-style-type: none"> that is to say in other words to explain i.e., (that is) to clarify to rephrase it to put it another way 	<ul style="list-style-type: none"> in the same way by the same token similarly in like manner likewise in similar fashion 	<ul style="list-style-type: none"> nevertheless but however otherwise on the contrary in contrast on the other hand
EXPLAIN HOW ONE THING CAUSES ANOTHER	EXPLAIN THE EFFECT OR RESULT OF SOMETHING	EXPLAIN YOUR PURPOSE	LIST RELATED INFORMATION	QUALIFY SOMETHING
<ul style="list-style-type: none"> because since on account of for that reason 	<ul style="list-style-type: none"> therefore consequently accordingly thus hence as a result 	<ul style="list-style-type: none"> in order that so that to that end, to this end for this purpose for this reason 	<ul style="list-style-type: none"> First, second, third... First, then, also, finally 	<ul style="list-style-type: none"> almost nearly probably never always frequently perhaps maybe although



Name Inquiry Path

CLAIM:	
A Supporting Evidence	C Supporting Evidence
B Supporting Evidence	F Supporting Evidence
(Reference:)	(Reference:)
D Supporting Evidence	F Supporting Evidence
(Reference:)	(Reference:)

CLAIM:

In that people play a significant role in shaping the state of the world - historically, currently, and likely into the future - we must think carefully about what we want to happen to the earth and its future inhabitants.

<p>A Supporting Evidence</p> <p>"What kind of culture would produce a product of this kind, and then label it, and sell it to children? I think we have a design problem." (min. :55-1:20)</p> <p>(Reference: #7 Cradle to Cradle)</p>	<p>B Supporting Evidence</p> <p>The Energy Independence and Security Act of 2007 "sets some design standards for new construction (55% reduction in use of fossil fuels, starting in 2010, and 30% of water-heating demand from solar thermal technology)."</p> <p>(Reference: Sustainable Federal Buildings)</p>	<p>C Supporting Evidence</p> <p>"It [sustainable design] demanded we atone for resource scarcity by making do with less. It suggested we undo the damage caused by rampant consumerism by engaging in a paradoxical and ill-defined un-consumption. We would buy our products only once, and they would last us forever, whether we liked it or not."</p> <p>(Reference: #8 Sorry green design, it's over)</p>
<p>D Supporting Evidence</p> <p>"Currently, 53 percent of power plants are in threatened neighborhoods. By the 2050s, according to the report, 97 percent will be."</p> <p>(Reference: #10 Bloomberg Outlines \$20B)</p>	<p>E Supporting Evidence</p> <p>"...sustainability turned out to be unsustainable. We just didn't have the time; we couldn't afford to be green. We thought the products looked ugly. We didn't enjoy the preachiness or the guilt. But most of all we got seduced by tech. iPads! Plasma TVs! Replicator 2s! Drones!... Anything, as long as it has a touchscreen or makes a reassuring beeping sound."</p> <p>(Reference: #8 Sorry green design, it's over)</p>	<p>F Supporting Evidence</p> <p>"Existing infrastructure favours who it was built for."</p> <p>(Reference: #5 Arguing Against Sustainability)</p>



Name Inquiry Path

CLAIM:			
Point 1		Point 2	
A Supporting Evidence	B Supporting Evidence	A Supporting Evidence	B Supporting Evidence
(Reference:)	(Reference:)	(Reference:)	(Reference:)
C Supporting Evidence	D Supporting Evidence	C Supporting Evidence	D Supporting Evidence
(Reference:)	(Reference:)	(Reference:)	(Reference:)



Name Inquiry Path

CLAIM:		
Point 1	Point 2	Point 3
A Supporting Evidence (Reference:)	A Supporting Evidence (Reference:)	A Supporting Evidence (Reference:)
B Supporting Evidence (Reference:)	B Supporting Evidence (Reference:)	B Supporting Evidence (Reference:)
C Supporting Evidence (Reference:)	C Supporting Evidence (Reference:)	C Supporting Evidence (Reference:)

Name Topic



Area of Investigation

Inquiry Path.....

In a few sentences, write a synthesis of what you have learned from your research about this Inquiry Path. This synthesis should provide an answer to your Inquiry Path, referencing your sources. At this point, you are NOT yet expected to provide your personal perspective. You simply give an account of your findings and analysis of sources. Draw from the Forming and Organizing Evidence-Based Claims tools you have developed for this Inquiry Path and use connecting words to help express the logic of your ideas.

Lined writing area for the synthesis response.

Name Model..... Topic Design.....



Area of Investigation What is sustainable design and why does it matter?

Inquiry Path What are society's major influencing factors in terms of sustainable design?

In a few sentences, write a synthesis of what you have learned from your research about this Inquiry Path. This synthesis should provide an answer to your Inquiry Path, referencing your sources. At this point, you are NOT yet expected to provide your personal perspective. You simply give an account of your findings and analysis of sources. Draw from the Forming and Organizing Evidence-Based Claims tools you have developed for this Inquiry Path and use connecting words to help express the logic of your ideas.

Sustainable design seeks to enhance, expand, and improve the ways in which people relate to the world. If people value improved relations with the world and its inhabitants, we should demand it and our leaders should demonstrate the will to achieve it.

On the positive, politicians are aware of how we are able to create sustainable solutions to handle real environmental problems. In the face of possible natural annihilation, Mayor Bloomberg of New York City aims to fortify the city from the ravages of large storms and hurricanes. This sustainable system could save lives and money for the city in the long run.

However, the poor decisions people can have dire consequences for the environment. McDonough, in "Cradle to Cradle," explains how our intellectual malnutrition negatively affects sustainable design. For example, we create poisonous children's toys and show little demonstrable interest in protecting the environment despite how much it enhances our lives. These choices and lack of action have an immediate affect on our environment.

Similarly, Freirs, in "Sorry Green Design, It's Over," points out how our fascination with new technologies has replaced our desire to create "green" designs. He claims that "sustainability turned out to be unsustainable. We just didn't have the time; we couldn't afford to be green. We thought the products looked ugly." Like McDonough, Freirs explains how the conscious decision making by people will yet again negatively affect the environment. This shows that people can easily put aside environmental-friendly design for design that only favors the lives of people. If leaders like Bloomberg, however, are capable of designing sustainable solutions, then we should press leadership to execute solutions that are sustainable for both humans and their environment, and that enhance our way of relating to our surroundings.

Name Area of Inv. Date

RESEARCH EVALUATION CRITERIA CHECKLIST		✓	COMMENTS
I. ADEQUACY AND SUFFICIENCY OF RESEARCH <i>The researcher's investigation follows the Research Frame and the information gathered is sufficient.</i>	Adequacy of the research: The researcher's investigation is based on the Research Frame and the claims and information presented link directly to the Inquiry Paths.		
	Sufficiency of the answers: The answers formulated by the researcher based on his/her investigation are sufficient to cover the scope of each Inquiry Path.		
	Adequacy of the scope and focus of the research: No Inquiry Questions or Paths of the research seem irrelevant or useless with respect to the Research Frame.		
II. CREDIBILITY AND RICHNESS OF SOURCES <i>The sources gathered by the researcher are credible and rich.</i>	Credibility of sources : The sources gathered by the researcher are credible.		
	Richness of sources: The researcher found a reasonable amount of rich sources that provide important information that is relevant to the inquiry.		
III. RANGE OF PERSPECTIVES <i>The researcher has considered a wide range of perspectives.</i>	Richness of perspectives: The researcher has considered and explored multiple perspectives.		
	Sufficiency of perspectives: No important perspective has been ignored.		
	Balance among perspectives: There is no over reliance in any one source or perspective.		
IV. ACCURACY OF THE PERSPECTIVE <i>The EBCs drawn from the analysis of the sources are coherent, sound and supported.</i>	Coherence of EBCs: The evidence-based claims drawn from the analysis of the sources are coherent with respect to the Research Frame.		
	Soundness of EBCs: The evidence-based claim demonstrates knowledge of and sound thinking about the Area of Investigation.		
	Support for EBCs : The evidence-based claims are supported by quotations and examples from the texts.		



Presenter:

Reviewer:

Review the feedback on your Research and think about ways you should revise your work. For each action you choose, explain what specific steps you are planning to take.

GUIDING QUESTIONS	MY NOTES, COMMENTS AND FUTURE STEPS
<i>What adjustments and additions do I need to make to my Research Frame?</i>	
<i>Are there sources lacking in credibility that I need to replace?</i>	
<i>What new information do I need to find to more fully address existing or new Inquiry Paths?</i>	
<i>What missing perspectives do I need to research?</i>	
<i>Are there any parts of my research I should discard?</i>	
<i>Other:</i>	



Presenter:

Reviewer:

Work in small groups to evaluate each other's research. Rotate roles in your group.

AS A PRESENTER:

- **Present your Area of Investigation and Research Frame.** Describe the general scope of your research and explain why you are interested in this area.
- **Summarize from your written claims** for each of your answers to the Inquiry Paths. Make sure you reference evidence from sources to support your claims.
- **Present 2 key sources.** Explain why you think they are key, summarize their content and explain your analysis of these sources to your peers. Show your peers and comment on your annotations, notes, and EBCs about these sources.
- Make sure you **give your peers the opportunity to ask you questions** during the entire presentation.
- **Take notes** on a Revising Research tool to determine actions you may take to revise your research based on your peers review.

AS A REVIEWER:

- **Listen** carefully to the presentation.
- **Ask clarifying questions** to the presenter when necessary.
- Using the table below, **make comments and suggestions** about the presentation answering the guiding questions.

GUIDING QUESTIONS	COMMENTS AND SUGGESTIONS
<i>What have you learned about the presenter's area of investigation?</i>	
<i>What was interesting to you in the presentation?</i>	
<i>What new information does the presenter need to find to more fully address existing or new Inquiry Paths?</i>	
<i>What was not clear to you in the presentation?</i>	
<i>What would you like to know more about the presenter's area of investigation?</i>	
<i>Do you have any other comment or suggestions that you think would help the presenter improve his/her work?</i>	

