

PART B - STEP-BY-STEP DIRECTIONS

STEP 1: THINK about science and how it operates by reviewing QUOTES about Science:

- The quotes on pp 10-11 of Class Notes
- The quotes that are found throughout Class Notes on the top of the page that begins each topic we will be covering this semester
- The quotes by the scientists in the "Poetry of Reality" video posted on the [Class Follow Up page for Aug 22](#)
- The quotes by the scientists in the "We are All Connected" video posted on the [Class Follow Up page for Aug 29](#)
 - (NOTE: this [handout](#) contains the quotes in both videos)

STEP 2: BROWSE the Dire Predictions text to get project ideas and select one for your PROJECT TOPIC (STEP 2):

- As you browse, identify topics that interest you and that you would like to explore in more detail.
- The sections in the Dire Predictions text that focus the most directly on "Linking-To-Life" issues are: Part 3 on Impacts, Part 4 on Vulnerability & Adaptation, and Part 5 on Solutions (*However, you are not limited to these sections.*)
- Also review the Project Categories, suggested Questions, and Resources linked under STEP 3 to get ideas for you topic. You may propose a new Project Category in addition to those suggested if your topic of interest doesn't fit under any of the categories. *If you wish to do this, email Dr H to get her OK.*
- Based on your browsing, select a topic that you want to research further in your term project.

Then, combine STEPS 1 and 2 by doing the following:

Revisit the QUOTES you liked and select an ideal quote to introduce your PROJECT TOPIC in your mini-proposal write up.

- **The selected quote should "inspire" or "frame" your project. For example, it could introduce your topic in a unique way, illustrate the scientific and/or global change relevance of your topic, or explain your motivation for choosing the topic (e.g., I have used a quote in a box at the top of this webpage to introduce the motivation for this "Thinking More Deeply" assignment; I also use a quote at the start of each new class topic to highlight the topic in an interesting or unique way.)**
 - The quote does not have to be explicitly linked to you topic. The quote's main purpose is to introduce your project. It could be a quote that demonstrates an aspect of science that you value, or is relevant to how you plan to explore your topic. The quote could even be one you don't agree with, but that motivates you to think more deeply and critically evaluate it in the context of your chosen topic
 - You are NOT limited to one of the quote sources listed under STEP 1. Feel free to dig deeper and come up with your own "perfect" quote for your project. Ideally it will be by a scientist, science-related, or illustrating an attribute of how science operates, but you might find a great quote from an unlikely source (*See who Dr H has quoted for Topic #8 on the top of p 43 in Class Notes!*)

STEP 3: PONDER your topic and your quote and construct a RESEARCH QUESTION that you will explore and answer during the semester.

- To "jumpstart" your pondering, scroll down to see the Project Categories and suggested Questions in the chart below for examples of questions in each project category that you could explore.
- Then construct a QUESTION about your chosen TOPIC -- Your question is what you will investigate for your term project.
 - At this point in time, your question might be a bit general (like a few of those in the chart below) but try to state it as clearly and specifically as possible. In Part C of the Linking-to-Life assignment you will be able to refine your question if needed.
- When you think you have a good question, PONDER again on how you will go about researching and answering your question. Then devise an initial plan for doing this.

HINTS:

- Is your question stated in a way that can actually be answered? If not, re-think it or rewrite it.
- Will you be able to obtain data or information that will allow you to address the question? If not, re-think it or rewrite it
- Note that you will be able to refine your research plan in Part C of the assignment if needed.

Updated!

STEP 4: WRITE & SUBMIT -- WRITE a MINI-PROPOSAL (500 - 700 words) that summarizes Steps 1 through 3.

What do I submit to the dropbox by Friday Sep 21st? Submit the mini-proposal you write for Step 4 in the following FORMAT (the other steps are there to help you prepare a good mini-proposal

What's the **FORMAT** I should use? Your mini-proposal must be submitted as an **MS WORD document** (.doc or .docx) or a **PDF** (No other formats will be accepted!

IMPORTANT: Be SURE your submission is successful and readable, by going back to the dropbox to see if it is in there and you can open it and read it yourself.

Your PART B mini-proposal should contain these parts:

- **TITLE of your project + your NAME** (a good title will succinctly indicate what the project is about)
- **QUOTE & INTRODUCTION:** Insert your quote followed by an introductory paragraph that sets the stage for your proposal topic and question. (List the *QUOTE* first, then start your introductory paragraph. Be sure to indicate who said the quote.)
- **TOPIC:** A section stating the TOPIC you are exploring and why it intrigues you (In this section you will explain your TOPIC, how it relates to our GC 170A course, and what your motivation is for investigating it. You should also link the topic or your plan to address it with the quote you have chosen.)
- **QUESTION:** The QUESTION about your topic that you plan to investigate (State the specific question related to your topic in "question" form and **BOLD** it so it stands out as a prominent part of your mini-proposal. You may follow up with a sentence or two of clarification if that will make the question more clear.)
- **RESEARCH PLAN:** An initial RESEARCH PLAN for how you will go about investigating your question. (State initial ideas about where or how you will collect your data or information to investigate your question and what you will need to know to be able to answer it.)
- **CLOSING PARAGRAPH:** (conclude with a statement that summarizes what you are doing, why you are doing it and what you hope or expect to discover by doing it)
- **REFERENCES:** (include the references for any sources you have consulted to develop your mini-proposal, including where you got your quote.)

Cite sources for your information (e.g., include articles, and webpage URL's from which, you obtained information). Your citations should be inserted in the text to connect the statement with the source of the information for the statement -- the way to do this as "In-Text" citations for a scientific paper can be found [HERE](#). For a good handbook on documentation of the sources of your research [CLICK HERE](#) and refer to "Documenting Sources" to see examples of how to reference different types of sources, including websites.

PROJECT CATEGORIES

See category choices below or devise your own.

**PROJECT
CATEGORY**

**Earth's
Global
Environment**



**POSSIBLE
QUESTIONS**

You are encouraged to come up with your OWN question to investigate!

But if you like, you may use one of these suggestions.

How do human's impact the environment in different parts of the world?

Are there global examples of sustainable practices?

What is my response to this question from the film "Home" : "Listen . . .to this extraordinary story and decide what you want to do with it."

**Energy
Conservation**



Where does my energy come from?

How can I lower my ecological or carbon footprint -- why should I?

Is solar energy viable for me?

Will energy policies work?

Does our local utility have a "green power" program?

**Transportation
Options**



Can I find a "dream car" that balances performance, fuel economy, cost, and "crashworthiness"?

What's the most sustainable form of transportation for my needs?

What's the most promising type of alternative fuel vehicle?

What are + and - of travel by plane vs., train, vs. auto?

**Water
Sustainability**



Where does my water come from?

What are Tucson & Phoenix water managers doing to address sustainability?

How is climate change exacerbating the future of water in the arid West -- and the world?

What's the connection between energy & water supplies?

**Food & the
Environment**



How does food production impact global change?

How far does my food travel to get to me?

Why does meat add so much CO2?

How are food production and deforestation linked?

Which Tucson supermarkets provide the most food choices?

**Artistic
Expression
/ Advocacy**



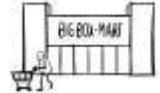
Can science and art be linked?

How can my art, writing, or poetry express my views on the environment?

What does the SGC textbook cover "say" to me about Global Change?

Is there an advocacy group that resonates with me?

**GC-Savvy
Consumerism,
Sustainability
& Business**



How can I make "global change savvy" consumer choices?

Can a business be run sustainably?

Can Energy Star labels help me find "green" electronics and appliances?

How can I detect and avoid "greenwashing"?

OTHER CATEGORIES OR ACTIVITIES ARE POSSIBLE!

Devise a category or activity of your own along the lines of the examples posted above!

Then [email Dr H](mailto:Dr.H) to see if it will be acceptable for this assignment.

Grading Rubric for Linking-to-Life PART B - Thinking More Deeply

	Excellent	Satisfactory	Needs Improvement	Unacceptable
Content & Development	<ul style="list-style-type: none"> Mini-proposal shows evidence of “thinking more deeply” through your choice of topic, your reasons for selecting it, and the question you plan to investigate. Your ideas about your project are well articulated, insightful, and thoughtfully developed Your research plan seems viable and shows evidence of initial exploration into what kind of information or data will be obtained to answer your questions. 	<ul style="list-style-type: none"> Mini-proposal shows evidence of “thinking more deeply” through your choice of topic and your reasons for selecting it, and the question you plan to investigate Your ideas about your project are presented but could be more convincingly developed Your research plan seems viable, but needs to be developed more with respect to how you are going to answer your question and what information or data you will obtain to do this 	<ul style="list-style-type: none"> Mini-proposal follows the basic directions but your choice of topic, your reasons for selecting it, and your question are not adequately stated Your ideas about your project and what you are going to do are difficult to sort out Your research plan needs work and must be developed with a clear idea of how you will answer your question and what information or data you will obtain to do this. 	<ul style="list-style-type: none"> Mini-proposal shows little coherence and/or does not address the intent of the assignment
Organization, Structure, Style & Clarity	<ul style="list-style-type: none"> Mini-proposal is organized in a way that makes sense and clearly and effectively combines all required parts into a cohesive whole Writing has effective sentence and paragraph structure Writing is concise and to the point 	<ul style="list-style-type: none"> Mini-proposal is mostly organized in a way that makes sense and clearly and effectively combines all required parts Most sentences and paragraphs are structured effectively Writing is fairly concise and addresses the point adequately 	<ul style="list-style-type: none"> Mini-proposal needs better organization. It's not clear how the parts fit together and/or some needed element is missing or unclear. Some sentences and paragraphs poorly structured Writing is wordy, unclear, and/or somewhat unfocused 	<ul style="list-style-type: none"> Mini-proposal is very confusing and/or unclear about what you intend to do. Sentences and paragraphs are poorly structured Writing is excessively wordy, unclear and unfocused
Originality (based on TurnItIn)	<ul style="list-style-type: none"> Content is original with minimal detection of problems in TurnItIn 	<ul style="list-style-type: none"> Some problems with originality detected 	<ul style="list-style-type: none"> Unacceptably high % of unoriginal content 	<ul style="list-style-type: none"> Unacceptably high % of unoriginal content
Mechanics: Punctuation, Spelling & Grammar	<ul style="list-style-type: none"> No errors in punctuation, spelling, or grammar 	<ul style="list-style-type: none"> A few punctuation, spelling and/or grammar errors, but none that detract from the meaning 	<ul style="list-style-type: none"> A few errors in punctuation, grammar and spelling that distract, but the meaning and intent of the essay can still be discerned. 	<ul style="list-style-type: none"> Major distracting errors in grammar, punctuation, and spelling that muddle the meaning of the essay
Adherence to Submission Directions	<p>All directions are followed:</p> <ul style="list-style-type: none"> Mini-proposal is in specified format Length is acceptable File is readable in MS Word or PDF format Submission is on time 	<p>Problems with one of the following:</p> <ul style="list-style-type: none"> Mini-proposal not in specified format Length is not acceptable MS Word or PDF is unreadable; needs re-submission Submission is late 	<p>Problems with several of the following:</p> <ul style="list-style-type: none"> Mini-proposal not in specified format Length is not acceptable MS Word or PDF is unreadable; needs re-submission Submission is late 	<p>Problems with most or all of the following:</p> <ul style="list-style-type: none"> Mini-proposal not in specified format Length is not acceptable MS Word or PDF is unreadable; needs re-submission Submission is late