



Not the End of the World: How We Can Be the First Generation to Build a Sustainable Planet

By Hannah Ritchie

Hot off the presses in January 2024, Hannah Ritchie's thought-provoking book *Not the End of the World* immerses readers in a data-driven exploration of our planet's possible futures. Speaking in a conversational voice, clearly meant especially for the younger generation to which she belongs (she's 31), Dr. Ritchie illuminates the complex dynamics of climate change, biodiversity loss, and environmental sustainability, inviting us to critically analyze our role in safeguarding the Earth. This assignment is a gateway to deeper understanding, prompting us to engage with key themes, evaluate scientific evidence, and contemplate the actionable steps needed to address pressing global challenges.



(image credit: leonard c via Getty Images)

TASK #1: A Summer Reading Pre-Poll

BEFORE reading *Not the End of the World*, we'd like to survey your perceptions and predictions about the issues that Dr. Ritchie will discuss. This is an occasion to reflect on your current thoughts, beliefs, and knowledge about issues both environmental and societal, and will set the stage for self-discovery and insightful learning as you read her book. When we convene at CBGS in August, we'll look back and compare our collective responses to those of other folks around the world, and to the data that Ritchie puts forth. The survey is brief: [click here to take it](#).

TASK #2: Introduction and Chapter One

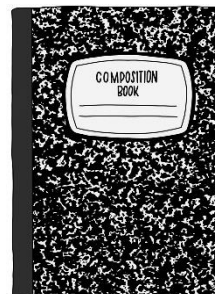
At age 31, Hannah Ritchie is already an exceptionally accomplished young scholar, an Oxford data scientist with a strong background in environmental science. In her 2024 book, she is speaking above all to YOU: the current generation of young people who have inherited the 21st century gifts of modern technology and economic prosperity, but who will also inherit the environmental threats and challenges born of that technology and prosperity. Read Dr. Ritchie's Introduction (very important!) and Chapter 1 on "Sustainability," and carry out the first reflection assignment. (See guidelines on page 2.)

Reflection #1: While reading Ritchie's Intro and Ch 1, did you ever find yourself feeling a sense of gratitude about the world we live in today? If so, please share a few of your thoughts/feelings. Did you ever find yourself feeling a sense of dread or dark concern? If so, please share. Also, read this [very brief May 9th NYT article on the "Doom vs. Optimism" debate](#) that Ritchie visits. What are your own thoughtful thoughts about this debate? Do you favor one strategy over the other, or is there value in both? As a young person in 2024, how do you feel about the way environmental AND societal issues are presented to you? Any advice on this for the media, politicians, activists, CBGS teachers, etc.?



Reflection Guidelines:

- ◆ For this assignment as well as other reflective assignments throughout your CBGS career, you'll need a standard 7.5" x 9.75" composition notebook. Juniors and Seniors, you probably already have yours; Sophs, you'll need to purchase one. If you prefer to type your responses, please print a hard copy and paste it into your composition book.
- ◆ A good essay will include explicit references, examples, and/or evidence drawn from the text, *that plainly show you've read it carefully and conscientiously*. We do want good grammar, correct spelling, and all that, but above all we want thoughtful, meaningful, substantive reflections. We don't wish to set word minimums and maxes, but 400-500 words is a good target. We want to hear your voice!
- ◆ Your product is due **Wednesday, August 14th**, the day all CBGS students will be back from summer break.



TASK #3: Chapter Five – Food: How Not to Eat the Planet

Ritchie's Intro and Chapter 1 set the stage for the 7 main chapters that follow, each an in-depth, data-driven exploration of a different environmental challenge, such as air pollution, deforestation, and overfishing. Each of you will read (at least) TWO of the 7 main chapters: EVERYONE will FIRST read Ch 5 on the environmental impacts of Food Production, and then you'll also read ONE of two chapters (your choice) assigned to YOUR 2024-25 GRADE LEVEL.

Grade Level	Assigned Chapters
All grades	Introduction Chapter 1 – Sustainability: A Tale of Two Halves Chapter 5 – Food: How Not to Eat the Planet
Sophomores Only (choose one)	Chapter 2 – Air Pollution: Breathing Clean Air < OR > Chapter 3 – Climate Change: Turning Down the Thermostat
Juniors Only (choose one)	Chapter 4 – Deforestation: Seeing the Wood for the Trees < OR > Chapter 6 – Biodiversity Loss: Protecting the World's Wildlife
Seniors Only (choose one)	Chapter 7 – Ocean Plastics: Drowning in Waste < OR > Chapter 8 – Overfishing: Pillaging the Oceans

It's important to note that the 7 main chapters are deep dives with lots o' data and detail. Your task is to become an expert on an issue (a chapter) specially assigned to your grade. When we convene in August, you and your classmates will teach the other two grade levels about your issues ...and of course, they'll teach you about theirs. This is a COLLECTIVE responsibility. Read well and be ready to do your share!

ALERT: Dr. Ritchie assumes that her reader already has some basic knowledge about carbon emissions, the greenhouse effect, and climate change. Before reading Ch 5, please watch this [3-minute primer/refreshers](#). Ritchie also uses some terms that may be unfamiliar, such as “carbon footprint,” “biofuels,” and “peak” this or “peak” that. Scroll down for a glossary of such terms.



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Reflection #2: Ritchie poses these two questions in Chapter 5: (A) How is it that we can make enough food to feed all people on the planet well beyond their daily caloric needs, yet millions of people are still starving? (B) How are we going to feed everyone without destroying the planet? These two questions are connected, of course, and Ritchie answers them in tandem. Explain how she does so, *citing specific evidence and/or examples from her text*. Do you feel she convincingly supported her claims with the data that she provided? Why or why not? Does her argument make you optimistic about the future, or are you left skeptical? ***In August, you'll circle up with your CBGS 'mates for a rich roundtable discussion about these difficult matters, so please read, reflect, and respond with thought and insight worthy of a Governor's School seminar!***

TASK #4: One (of the Two) Chapters Assigned to your 2024-25 Grade Level

Here are two kindred quotes from the book that nicely capture Ritchie's driving message and mindset, one from the early pages, the other near the end:

You will have to hold multiple thoughts at the same time We have made impressive progress, but we still have a long way to go. As my colleague Max Roser puts it: 'the world is much better; the world is still awful; the world can do much better.' **All three statements are true.** By denying the first – that we *have* made progress – we lose out on important lessons about how we keep moving forward. Denying this fact robs us of the inspiration that change *is* possible Alongside the history, and story of where we are today, I will propose a path forward. My suggestions are never **predictions**, they are **possibilities**. (pp 14-15; bold fonts added)

I believe that we can be the generation that meets the needs of everyone while leaving the environment in a better state than we found it But we can also stick with the status quo. A sustainable future is not guaranteed – if we want it, we need to create it. Being *the first generation* is an opportunity, but it is not inevitable. (pp 298-99)

Reflection #3: Again, we're assigning TWO chapters to your grade level, and for the summer assignment, we are asking you to read and reflect on ONE of those two chapters (but feel free to read and write about both!). For the environmental issue(s) that you chose to read about, how does Ritchie's data and reasoning embody the two kindred quotes above? Please give specific evidence and examples from the text. Besides being an ardent environmentalist, it's plain that Hannah Ritchie is also deeply humanistic. She's just as passionately concerned about the wellness and well-being of her fellow *Homo sapiens* as she is about the welfare of other species and the health of our natural environment. It's a tricky balance. In your chosen chapter(s), in what ways does she strive to strike this balance? Feel free to weigh in with your own ideas, here! Are you convinced? Do you share her optimism? Do you disagree with her stance or anything else?



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GLOSSARY

- ◆ **“greenhouse gases”**: When sunlight reaches the surface of the Earth, it warms the planet, its oceans, and its atmosphere. Several “greenhouse gases” act as blankets that help keep the heat from radiating back into space and thus keep our planet much warmer – hence habitable – than it otherwise would be. The most important greenhouse gas is **carbon dioxide, CO₂** (others are methane, ozone, and water vapor).
- ◆ **“fossil fuels”** and **“carbon emissions”**: During photosynthesis, plants and algae absorb CO₂ from the air and incorporate the carbon atoms into the organic molecules that make up their tissues (e.g., proteins, carbohydrates, and fats). When animals eat and digest plant matter, or when bacteria and fungi decompose plant matter, they liberate that carbon and emit it into the air again as CO₂. Thus carbon is perpetually recycled in and out of the food chain, with no overall increase in atmospheric CO₂. However, in recent centuries, humans have been mining carbon-rich coal, petroleum, and natural gas from deep underground. These are called “fossil fuels” because they are the concentrated remains of prehistoric plants and algae, whose bodies never decomposed and thus never released their carbon. Today, when we burn these fossil fuels, we are adding “NEW” CO₂ to the atmosphere, and this is raising the temperature of our planet.
- ◆ **“biofuels”**: Fossil fuels are just the remains of Earth’s own prehistoric “crops” that were naturally rendered into coal, oil, and gas. Today, we humans can similarly convert corn, sugarcane, and other crops into “biofuels” for automobiles or heating homes. A key difference is that combustion of biofuels simply recycles the CO₂ that was already in the air, whereas combustion of fossil fuels adds “NEW” CO₂ to it. However, biofuels also entail using cropland for fuel instead of food.
- ◆ **“carbon sequestration”**: This is any process that removes CO₂ from the atmosphere and stores it in a “carbon pool” for a period of time. Plants sequester carbon in their tissues through photosynthesis. We humans are also developing technologies for capturing CO₂ and storing it underground.
- ◆ **“carbon footprint”**: This is the amount of CO₂ and other greenhouse gases that are released into the atmosphere by a given human activity. We can talk about the annual “carbon footprint” of, say, the airline industry or agriculture. Or you can talk about your own personal carbon footprint through your daily use of electricity and gasoline, your food consumption, and so on.
- ◆ **“peak [fill-in-the-blank]”**: This is the point in human history when an activity or practice reaches its maximum level or rate. For example, Dr. Ritchie talks about “peak agricultural land,” the point at which the clearing of wilderness to create new farmland reaches its zenith and then either plateaus or (hopefully) begins to decline. She uses the metaphor of “peak this” and “peak that” multiple times in the book.
- ◆ **“nitrogen”** and **“fertilizer”**: In addition to plenty of CO₂ and water, plants also need much smaller amounts of nitrogen, phosphorus, and other “fertilizers” to grow. When we fertilize our farms or lawns, the crops or grass will soak up much of that fertilizer, but some inevitably gets washed by rain into local waterways. There it will stimulate the growth of algae (especially phytoplankton). This isn’t necessarily a bad thing ...until it becomes “too much of a good thing.” When aquatic algae “bloom” TOO copiously, it darkens the water and blocks essential sunlight to important habitats such as seagrass meadows and coral reefs. And when an algal bloom dies, the biomass sinks and is decomposed by bacteria, who burn up oxygen in the process, creating “dead zones” where animals cannot survive. ***The over-fertilization and over-greening of aquatic ecosystems is known as eutrophication, and it’s the environmental threat of gravest concern in Chesapeake Bay and many other coastal waters.***