

Environmental 101 Project Topic Ideas

Pollution

- Air
 - o Pollutants
 - o PM 2.5
 - o Greenhouse Gasses
 - o Transportation Emissions
- Water
 - o drinking water
 - o waste water, runoff
 - o sustainable infrastructure, urban planning?
- Land
- Nonsource vs source pollution
- Light
- Noise

Energy Sector

- Renewable energy sources
- How fossil fuels impact the environment
- Carbon sequestration (pros and cons)
- Nuclear energy
- Common energy misconceptions
- Lithium and mineral mining operations

Agricultural Sector

- History of US agricultural practices
- Permaculture
- Agroforestry
- Sustainable farming practices
- Misconceptions of farmed goods labels
 - Caged vs pasture raised vs free range
- The environmental impacts of conventional farming
- The environmental impacts of meat production
- Soil degradation
- Desertification
- Land Use
 - Land sharing vs land sparing
- Deforestation

Transportation

- Electric vehicles

Recycling

- Plastics
- Metals
- Composting
 - food waste
- The reality of recycling
- Future recycling projects
 - Terracycle

Natural Areas & Ecology

- Ecological spaces in cities
- Oceans
- Forests
- Arctic environments
- Wildfires
- Deforestation
- Ecological Succession
- Palm Oil
- Pollinators
- Rewilding and species reintroduction
- Keystone species and ecosystem balance
- Invasive species and biodiversity threats Marine protected areas
- Conservation genetics
- The role of fungi in ecosystem health

Fashion/ Textiles

- Fast fashion
- Toxic chemicals in fashion industry

Environmental Justice

- Redlining
- Food deserts
- Lead contamination
- Accumulation of power plants & pollution

Common Climate Change Misconceptions

- Climate vs Weather
- “It’s actually global cooling”
- “It’s actually good for plants”
- “Animals can adapt”

Biodiversity

- Species richness vs species evenness

- The IUCN red list
- Invertebrates
- How many species are on earth?
- Major historical endangered or extinct species cases
 - The passenger pigeon
 - American bullfrogs
 - Monarch butterflies
 - American chestnut trees
 - The bald eagle
 - The gray wolf
- Invasive vs native species
- Major cases of invasive species
 - Burmese python
 - Wild hogs
 - European and Asian earthworms
 - Lionfish
 - Spotted lanternfly
 - Zebra mussel
 - Kudzu

Climate Change & Global Warming

- Global Warming explained
- Health impacts of climate change
- Nature disasters patterns
- Explaining the most prominent climatic studies
- Greenhouse gases explained

Environmental History

- History of climate denial propaganda
- Important environmental leaders
- Important environmental legislation US and international

Carbon Dioxide

- Carbon footprint
 - The origins of carbon footprint
- Carbon pricing
- Biggest misconceptions

Water

- Freshwater scarcity
- Water pollution
- Fishing industry
- Watersheds
- Mangroves, Wetlands, Seagrasses, Salt Marshes, etc

- Ocean acidification & coral reef damage
 - Oil spills

Third Party Certifications

- AZA accreditation
- LEED
- Cradle to Cradle
- Certified Humane
- Greenwashing

Climate & Atmospheric Science

- Urban heat islands
- Albedo effect and climate feedback loops
- Climate tipping points
- Geoengineering proposals
- Climate modeling and prediction tools
- Role of aerosols in climate systems
- Climate change and jet stream shifts
- El Niño and La Niña impacts
- Climate migration and displacement
- Climate change and infectious disease spread

Psychology Behavior & Communication

- Eco-anxiety and mental health
- Climate communication strategies
- Behavioral nudges for sustainability
- Environmental education in schools
- Role of social media in climate activism

Policy, Law & Economics

- Environmental taxation
- Green New Deal Proposals
- International climate agreements (e.g. Paris Accord)
- Environmental lobbying and corporate influence
- Environmental impact assessments (EIA)
- Climate litigation and lawsuits
- Subsidies for fossil fuels vs renewables
- Environmental economics: valuing ecosystem services

Urban & Built Environment

- Green roofs and living walls
- Passive solar design
- Net-zero buildings
- Urban biodiversity corridors

- Smart cities and sustainability
- Urban agriculture

Waste, Materials & Innovation

- E-waste and tech recycling Biodegradable plastics
- Microplastics in food and water
- Upcycling vs recycling
- Extended producer responsibility (EPR)

Global & Cultural Perspectives

- Indigenous environmental stewardship Climate justice in the Global South
- Deforestation in the Amazon
- Desertification in Sub-Saharan Africa
- Melting permafrost in Siberia

Animals & Ethics

- Wildlife corridors and habitat fragmentation Ethical dilemmas in conservation (e.g. culling invasive species)
- Zoos vs sanctuaries
- Animal agriculture and methane emissions
- Pet industry's environmental footprint
- AZA accreditation

Additional Topics

- Green consumerism and ethical purchasing
- Environmental impacts of cryptocurrency mining
- Green financing (fossil fuel investments in major banks)
- Divestment of fossil fuels
- Sunscreen and coral reef damage
- Climate change and national security
- Environmental storytelling in media and film