



Unit 3 — Science and Ethics

Track E · Klasse 12 · Niveau E (Basisfach / Leistungsfach)

Learning objectives

- *I can read short ethics-of-science texts (CRISPR, large language models, climate intervention) and identify the consequentialist and deontological moves.*
- *I can use vocabulary of science ethics (precautionary principle, dual use, informed consent, moratorium, governance).*
- *I can write a 350-word science-ethics essay with a structured ethical argument.*

Lead-in

Mr. Yilmaz set three short ethics-of-science texts: one on CRISPR germline editing, one on large language models and academic integrity, one on climate intervention research (stratospheric aerosol injection). The class noticed quickly that all three debates rotated around the same question — *who decides what we are not allowed to find out?*

Vocabulary

- precautionary principle
- dual-use research
- informed consent
- moratorium
- governance
- irreversibility
- externality
- stakeholder engagement
- transparency
- peer review
- replication
- bioethics committee

Practise

- Match: precautionary principle → caution under uncertainty; dual use → research with both civilian and military potential; moratorium → temporary halt.
- T or F: consequentialism rules out informed consent; deontology rules out cost-benefit thinking.
- Build 4 sentences applying consequentialist + deontological + virtue-ethics moves to the CRISPR case.

Your turn

Science-ethics essay, 350 words. Pick one case (CRISPR / LLMs / climate intervention). Build a structured argument with one consequentialist move + one deontological move + one virtue-ethics move + one disagreement / acknowledgement. Use 4 academic discourse markers + 1 cleft.

Reflect

- I can identify consequentialist, deontological, and virtue-ethics moves.
- I can use 6+ science-ethics terms.
- I can write a 350-word structured science-ethics essay.