



Advances in genome sequencing and genome editing technologies bring promise for treating and avoiding disease, nourishing a growing population, and combatting vector-borne disease. At the same time, there are fears that some applications (such as embryo screening, prenatal testing of fetal DNA, and germline editing) could lead to a new era of eugenics. With long-standing injustices and social inequities at the forefront in today's world, it is particularly timely for students to grapple with the topic of eugenics. As genomic technologies enter societal use, the history of eugenics provides students with a lens for examining issues of equity and fairness, and for considering who has the power to make decisions about people's health and safety.

I want to include the history of eugenics in my teaching, but I need to learn more. Where should I begin?

In pgEd's experience, it is common for people to pass through high school, college/university, and professional training without encountering the history of eugenics in the curriculum. Our video presentation on the history of eugenics provides an overview and includes dimensions that may be new to people already familiar with this history. For further exploration, check out this [list of resources](#) (including articles, videos, podcasts, and themes) contributed by participants during the March 10th webinar, *Discussing Genetics: History of Eugenics*.

In the following pages we provide some considerations and strategies for talking about eugenics in your classrooms, as well as a list of classroom resources.

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For more information: [Inclusive Public Engagement for Geneticists](#)





Considerations and Strategies for the Classroom

The history of eugenics will land very differently in any given classroom; this will be an entirely new topic for some, whereas others might know this history intimately. The following strategies can help to create a space for learning that accommodates this range of experiences.

Community Agreements

The goal is to collectively form the norms for how people will interact with one another in the classroom space in a way that is intentionally shaped by, and inclusive of, all identities and social groups. Classroom agreements foster equitable participation and, when established early on in a course, can provide an important foundation for subsequent sessions when difficult and/or sensitive topics arise spontaneously or in the curriculum. Agreements will differ from classroom to classroom. The sidebar shows samples that articulate key ideas (several of which are discussed [here](#)¹):

- Speak from your own experience.
- Realize impact can be different than intent. Own the impact of your words.
- Listen to understand, not to respond. The focus should be on learning, not debating.
- You don't have to agree, but you must be civil. Critique ideas, not people.
- It is ok to change your mind.
- Share the floor/pass the mic. (Step up, step back.)
- "Challenge by choice" – each individual can choose if/when to participate.

Providing Opportunities for Reflection

Many of the images in pgEd's lessons on the history of eugenics are shocking and could be disturbing to students. These topics may be personal for individuals as they reflect on their own families and how they may have been affected by these events. Educators may consider making students aware of this ahead of time and offer breaks or writing/reflection opportunities throughout the lesson. Opportunities for reflection may include:

- Personal reflections (for students only)
- Written reflections to be shared with the instructor
- Anonymous class reflections – For example, during the March 10th webinar, participants watched pgEd's video presentation, and then were invited to respond anonymously to the following prompts using the [Padlet](#) app:
 1. *Please share something from the video that was new to you.*
 2. *If there is a perspective, person, or event you know of that you feel should be included here, please share.*

These prompts attempt to meet people where they are, inviting their reflection on histories they were previously unaware of and/or their perspectives to broaden the discussion. Students may also choose not to share any responses.

¹ Teacher Guide (Lesson 0: Before the Lessons) from curricular unit on [Genetics, Race, and Racism](#) from the Science Education Partnership at the Fred Hutch, and references therein.



Classroom Resources

The Personal Genetics Education Project ([pgEd](#)) offers two lessons on the history of the American eugenics movement to inform the conversation about how society can reap the benefits of new genetic tools, while safeguarding against future misuse. Examining historical injustices is not meant to dissuade people from taking advantage of potentially life-saving genetic technologies. Rather, the goal is that people are aware of the possibilities and better equipped to evaluate the benefits and risks of genetic technologies as they enter our society.

Genetics, History, and the American Eugenics Movement

Aim: How can we as a society avoid the mistakes of the past to take advantage of the promise of genetics?

Presentation in 3 sections: (1) Overview of current uses of genetic technologies in medicine, as well as emerging ethical questions; (2) Examination of the American eugenics movement through historical events and documents; (3) Spotlight on efforts to halt eugenic practices and looks ahead to emerging issues at the intersection of genetics, health, and informed consent.



Available as a [lesson plan and PowerPoint](#) (with detailed slide notes) or a [video](#) (with captioning) that may be assigned to students. Also paired with a clip from [The Gene: An Intimate History](#), via PBS Learning Media.

Using Primary Sources to Examine the History of Eugenics

Aim: How can we use primary sources to discover how the eugenics movement became popularized in the United States and Europe?

Primary Sources Document Analysis: This activity extends the ideas examined in the presentation, using primary source documents to explore issues of race, gender and class in the 20th century.

Available as a [lesson plan and PowerPoint](#), including primary sources for student analysis, worksheets, and detailed notes for the instructor.

March 10, 2021, 2:00-3:30 p.m. EST

Discussing Genetics: History of Eugenics

Meeting the Moment: strategies for
contributing to a broad conversation
on genetics and society

Webinar series for biology researchers
and educators of any career stage



For Further Exploration

pgEd's lessons are rich with examples and references; however, they are not a complete picture of the past and present experiences of all peoples around the world who have been targeted by eugenic practices.

Student Research: Ask students to research eugenics in a part of the world or on a theme that is meaningful to them. Students may choose to explore the history of a particular community or institution, stories of people who resisted eugenic practices, or examples of eugenic ideologies echoing in the 21st century. The following resources may provide useful starting points for students:

[Image Archive on the American Eugenics Movement](#) (Cold Spring Harbor Laboratory)

[Eugenics Archives](#) (Living Archives on Eugenics in Western Canada, international perspectives)

[Eugenics: Compulsory Sterilization in 50 American States](#) (Prof. Lutz Kaelber, University of Vermont and UVM students).

Living and Breathing Curricula:

pgEd's knowledge and awareness around the topic of eugenics is ever-evolving. As we engage with people from all walks of life, new perspectives on this topic come to the forefront all the time, and we are grateful to those individuals who have been our teachers. For this reason, we periodically update our curricula to reflect a broader swath of voices and stories of people who were and are impacted.