

## Mandatory Vaccination: Yea or Nay?

Interdisciplinary Subject: Science

Grade Level: 9-12

Duration: 80-100 minutes

**Lesson Overview:** In this three-part lesson students will be able to discuss the proper role of government in making public health decisions. In Part I, students discuss their prior knowledge of vaccinations and the purpose of vaccinations. In Part II, students assume the roles of members of Congress to determine if they will vote on a bill to require parents to vaccinate their children. Students will use primary sources to explore the issue, then work in small groups to discuss both sides of the argument. Finally, students will state and support their vote for or against the bill. In Part III, students conduct independent research in order to write their answer to the Essential Question.

### Essential Question

Should the government be able to require parents to vaccinate their children?

### Lesson Objectives

Students will be able to:

- Analyze sources to gain understanding about an issue.
- Understand different points of view on the issue.
- Participate in an academic discussion.
- State and support an informed opinion.

### Materials Needed

Before teaching this lesson, students will need to know what a vaccination is and how vaccinations work. The Center for Disease Control provides a lot of information here: <https://www.cdc.gov/vaccines/vac-gen/default.htm>

- [Handout A: Instructions](#) – 1 per student
- [Handout B: Source Pack](#) – 1 per student or pair of students (Or students can access sources online.)
- [Slides of debriefing questions](#)

### Library of Congress Resources

- Source A: H. R. 2232: A BILL To amend the Public Health Service Act to condition receipt by States (and political subdivisions and public entities of States) of preventive health services grants on the establishment of a State requirement for students in public elementary and secondary schools to be vaccinated in accordance with the recommendations of the Advisory Committee on Immunization Practices, and for other purposes. <https://www.congress.gov/bill/114th-congress/house-bill/2232/text>
- Source B: H.Res.117 - Recognizing the importance of vaccinations and immunizations in the United States. <https://www.congress.gov/bill/114th-congress/house-resolution/117/text>
- Source C: Summary of Article by Andrew Wakefield, et al.: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(97\)11096-0/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(97)11096-0/abstract)

### Standards

#### C3 Indicators

D1.1.9-12 Explain how a question reflects an enduring issue in the field.

D1.5.9-12 Determine the kinds of sources that will be helpful in answering compelling and supporting questions, taking into consideration multiple points of view represented in the sources, the types of sources available, and the potential uses of the sources.

D2.Civ.9.9-12 Use appropriate deliberative processes in multiple settings.

D2.Civ.13.9-12 Evaluate public policies in terms of intended and unintended outcomes, and related consequences.

D4.1.9-12 Construct arguments using precise and knowledgeable claims, with evidence from multiple sources, while acknowledging counterclaims and evidentiary weaknesses.

# Teacher's Guide

## Part I: Science and the Law

1. Conduct a brief class discussion asking:

- Can you think of any laws that are based on science?

*(Federal Food and Drug Administration requirements for labeling; disposing of certain products including electronics, oil, batteries; cannot take someone else's medicine; underage drinking; use of tobacco products; use of certain insecticides; laws about clean water/air, etc.)*

2. Explain that there are almost always disagreements when new laws are made.

- For example, science tells us that eating foods high in fat and sodium are not good for you. What if a new law was going to be made that would not allow Americans to eat more than one juicy bacon cheeseburger per month?

*Would you agree with that law? Why or why not? (Accept all answers and probe for understandings about personal preferences and how such a law would be enforced.)*

3. Explain that sometimes laws, including those that are based on science, cause controversy. (If necessary, define "controversy" as strong feelings and beliefs on a topic causing disagreement.)

Assess students' prior knowledge about vaccinations before proceeding. Ask:

- Do any students recall getting vaccinations? "Booster shots"? *(Explain if necessary.)*
- What is the purpose of a vaccination? *(Vaccinations provide immunity to diseases, such as measles or the flu. Smallpox is a disease that caused full-body blisters, blindness, and death. Smallpox was eradicated from the globe in the 20th century thanks to vaccinations against the disease.)*

4. Have each student complete an inquiry exit slip to process this discussion.

- Students should use the following prompts:
  - *Two things I learned:*
  - *How I can share what I learned with someone outside of class:*

## Part II: Welcome to Congress!

### A. Examining legislation

1. Explain to the students that they are going to take the roles of members of Congress and decide whether or not they will vote for a bill having to do with vaccinations of school children.

2. Distribute **Handout A: Instructions** and **Handout B: Source Pack** to each student. (To save paper, you could have students work in pairs to analyze the sources.)

3. Tell the students that they will work independently to complete the first two steps (Step 1: Read the Bill – Source A, Step 2: Research – reading Sources B and C), then will join a group to complete Step 3 (Discuss & Decide).

4. Let students know how much time they have to complete Steps 1-2. Students could be grouped for the discussion in Step 3 as they finish Step 2. (Students should work in groups of 3-4.)

### B. Debriefing

Ask the students:

- What was the bill about that you were deciding?

- What was the controversy?
- What were the most compelling arguments for opposing the bill? For supporting the bill?
- What was the most interesting source you used? Why?
- What other sources might have been helpful to you?
- What did you learn about science and the law from this lesson?

*NOTE: These questions are listed on the two slides provided as the slide pack for this lesson.*

### **Part III: Assessment**

1. Collect Handout A and look for:
  - Accurate summary of Source A: H. R. 2232.
  - Accurate/appropriate answers to prompts for Sources B and C.
  - Clear articulation of most compelling arguments in favor and opposed to the bill.
  - Effectiveness in stating an opinion and supporting it with evidence from sources/text.
2. Have students do independent research on how vaccinations are being discussed in today's media.
  - Using their research and what they learned from the lesson activities and primary sources, students should write a short persuasive essay (300 words) answering the Essential Question:  
*Should the government be able to require parents to vaccinate their children?*
  - Students should answer the question as *yes* or *no* but may include any points they are undecided about.
3. Students may use the following questions to help guide their research:
  - What does the community of scientists say about the importance and safety of vaccines?
  - Is there a consensus on the safety of vaccines among scientists? (*Consensus* means virtual universal agreement. It does not require every single scientist to have the same opinion as all the others. It does require that almost all scientists have the same opinion.)
  - What are the dangers of children not getting vaccinated?
  - Who is saying vaccines are safe for most children? Who is saying vaccines are *not* safe and should be avoided?
4. Have a sample set of students read their essays. See if there is a variety of opinions among the students. If there are both yes's and no's the Essential Question, have both sides be heard. Poll the class to see what the class's majority opinion is.

## **Standards Alignment**

### **Next Generation Science Standards**

#### **HS Natural Selection and Evolution**

HS-L S4-1. Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.

### **Common Core State Standards Addressed**

[CCSS.ELA-Literacy.SL.11-12.1](#)

[CCSS.ELA-Literacy.SL.11-12.3](#)

[CCSS.ELA-Literacy.SL.11-12.4](#)

[CCSS.ELA-Literacy.SL.11-12.6](#)

[CCSS.ELA-Literacy.RI.11-12.1](#)

[CCSS.ELA-Literacy.RI.11-12.2](#)

[CCSS.ELA-Literacy.RI.11-12.3](#)

[CCSS.ELA-Literacy.RI.11-12.4](#)

[CCSS.ELA-Literacy.RI.11-12.5](#)

[CCSS.ELA-Literacy.RI.11-12.6](#)

[CCSS.ELA-Literacy.RI.11-12.10](#)

[CCSS.ELA-Literacy.W.11-12.9](#)

[CCSS.ELA-Literacy.W.11-12.10](#)