

Rights Lab– Episode 2: Where can I fly my drone?

Overview

This lesson is the 2nd in a series of four that accompany the documentary film series, [Rights Lab](#). They provide a vehicle for discussing how laws, government, and technology intersect around the Constitution. With a mix of compelling documentary video and motion graphic elements, the curriculum uses evidence-based learning by teaching students to analyze texts, graphs, and video content as well as participating in role-playing and other engaging activities designed to foster measurable growth in history and social studies courses.

Along with exploring the moral dilemmas raised within the core media, the curriculum also uses relevant historical context to trace the changes within civil liberties over time. Each lesson offers historical context, citing information from scholarly sources, and collaborative activities that include multiple forms of learning in order to engage a diverse class set. Throughout the curriculum, students are provided opportunities to reflect and assess mastery and understanding of current law, how these laws came to be, and how technology and social issues play a factor in moving forward. They are summatively and formatively evaluated and questioned to provide clear benchmarks of achievement and understanding.

Lesson Learning Outcomes

Students will develop a fundamental understanding of the significance and evolution of civil liberties in history and how certain events and advancements led to change. This lesson centers on the legality of flying drones with regards to privacy, legal precedent, and the freedoms provided by the Constitution.

Suggested Grade Level

8-12 grades

Duration of Activity

1 class period (90 minutes)

Common Core Standards

CCSS Reading	CCSS writing	CRS English
<p>Reading for Literacy in Social Studies</p> <p>CCSS.ELA-LITERACY.RH.11-12.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.</p> <p>CCSS.ELA-LITERACY.RH.11-12.9 Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.</p> <p>CCSS.ELA-LITERACY.RH.11-12.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.</p> <p>CCSS.ELA-LITERACY.RH.11-12.1 Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.</p> <p>CCSS.ELA-LITERACY.RH.11-12.3 Evaluate various explanations for actions or events and determine which explanation best accords with textual</p>	<p>Writing Standards</p> <p>CCSS.ELA-Literacy.WHST.9-10.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p>CCSS.ELA-Literacy.WHST.9-10.9 Draw evidence from informational texts to support analysis, reflection, and research.</p>	<p>Band 13-15</p> <p>CLR 201. Locate basic facts (e.g., names, dates, events) clearly stated in a passage</p> <p>REL 202. Identify simple cause-effect relationships within a single sentence in a passage</p> <p>Band 16-19</p> <p>CLR 301. Locate simple details at the sentence and paragraph level in somewhat challenging passages</p> <p>CLR 302. Draw simple logical conclusions in somewhat challenging passages</p> <p>REL 302. Identify simple cause-effect relationships within a single paragraph in somewhat challenging literary narratives</p> <p>Band 20-23</p> <p>REL 403. Identify clear cause-effect relationships in somewhat challenging</p> <p>EXJ 302. Generate reasons for a position that are vague or simplistic; show a little recognition of the complexity of the issue in the prompt by</p> <p>DEV 301. Offer limited development in support of ideas; clarify ideas somewhat</p>

<p>evidence, acknowledging where the text leaves matters uncertain.</p> <p>CCSS.ELA-LITERACY.RH.11-12.8 Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information.</p>		<p>with vague explanation and the use of general examples</p> <p>ORI 301. Provide a simple organizational structure by logically grouping some ideas</p>
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Essential Questions

1. What is the Commerce Clause and how is it used?
2. What is the Federal Aviation Administration?
3. Where is it legal to fly drones? Is flying above someone else’s land trespassing, or is the air public?
4. How do time, place and manner restrictions apply to drone use?
5. Are there any special rules/regulations in your area for drone use?
6. What are some helpful pieces of advice for flying drones?

Essential Knowledge

1. The Commerce Clause is the basis for laws regulating business, giving Congress the power to regulate commerce for the United States.
2. The Federal Aviation Administration is the aeronautics branch of the Department of Commerce.
3. It is legal to fly a drone for commercial and hobby use on public property as well as private property with permission from the owner. However, you must account for regulation requirements.
4. All business and recreational drones over 250 grams must be registered by the FAA. This is commonly known as a section 333 exemption. For private property, even if you get approvals from all parties and properties being recorded, you can still get fined without a section 333 by the FAA. Other time, place, and manner restrictions vary government to government.
5. Chicago Law as of 2016
 - a. No flying above 400 ft
 - b. No flying within 5 miles of an airport

- c. No flying over:
 - i. People
 - ii. Private Property
 - iii. Schools
 - iv. Hospitals
 - v. Businesses
 - vi. Police Stations
- 6. Proper procedures for flying drones:
 - d. Keep your aircraft in sight
 - e. Don't fly over people
 - f. Know where to land

Historical Context

The basis of laws regulating commerce were enshrined in the Constitution under the Commerce Clause, giving Congress power to regulate exchange with other countries, between states and with Native American nations. States or nations have different laws/rules, so commerce legislation mediates between them. Because the Tenth Amendment notes that any powers not given to Congress by the states cannot be legislated nationally, there's disagreement about the range of powers the Commerce Clause provides, and the Supreme Court has interpreted it differently in the 200+ years since it was created. Much like the Constitution itself, it was a fundamental legal decision that was key in overriding the power of individual states and creating a solid scope of action for the federal government to oversee. Today, it's considered to be the power that Congress has taken the most action on.

The first challenge to the Commerce Clause came in the case of *Gibbons v. Ogden* in 1824, when two steamship operators who ferried passengers from New York City to New Jersey sued to keep a third operator, who was granted a business license by Congress, from competing against them on the same route. The ruling was in favor of the new steamship operator, finding that Congress had ample power to grant new business licenses within specific states if the business in question was part of a broader inter-state commerce operation. This is good for a first example, also since it relates to transportation, it anticipates the issues of planes/drones.

In subsequent cases, the Supreme Court found two ways of looking at whether the federal government can regulate commerce. One was determining how the action was categorized - whether the action in question would have "direct" or "indirect" impact on inter-state commerce, and whether it was "in" or "out" of the stream of commerce. The second was more empirical, judging simply by the effect a certain activity would have on interstate commerce.

In 1918, the Supreme Court took up the constitutionality of child labor in *Hammer v. Dagenhart* in 1918. The case refused to ban the use of child labor in making products that were traded across state borders because workplace conditions were a local matter. In a show of how

quickly commerce attitudes shifted, the case was overruled in 1941 by U.S. V. Darby, which upheld that the Fair Labor Standards Act to create minimum wage and hour standards.

Two key bills under the Commerce Act, Interstate Commerce Act in 1887 and the Sherman Antitrust Act in 1890, tweaked the understanding of commerce to keep up with rapid industrialization and a growing economy. The Interstate Commerce Act in 1887 created the Interstate Commerce Commission to regulate railroads, and came out of farmers opposition to railroads, which they believed were offering them discriminatory rates. The Sherman Antitrust Act in 1890 was created to keep businesses from taking actions that stifled competition, such as monopolies or cartels. It was spurred by price fixing in the Chicago meat industry.

The modern age of flight began in 1903 when Orville Wright flew the first powered plane, and has grown exponentially since. Regulation of the commercial air industry didn't have for more than 20 years however - it began with the Air Mail Act of 1925, which created a profitable commercial airline industry and oversaw the first airlines. The federal government stepped in more decisively in 1926 with the passage of the Air Commerce Act, which allowed the Secretary of Commerce to work on developing air commerce and safety. The Department of Commerce also opened a new aeronautics branch which took control of the airways from the U.S. Postal Service. The Federal Aviation Administration was created in 1958 by the Federal Aviation Act.

The example of water rights is particularly interesting, and applicable to how the debate around air space has unfolded. Under common law, the foundation to American law that comes from English law based on social custom, commerce rights were divided into different ways of administering commerce and land such as riparian rights, which allocated control over water depending on who possessed land along it's path. The Commerce Clause overtook riparian rights, noting that controlling water was key for commerce. United States v. Rands, in 1967, overrode the ownership of navigable waters by individuals, and made them the public property of the nation.

The Federal Aviation Administration coined the term unmanned aircraft for flying technology such as drones. The regulating of drones falls into three main categories under the First Amendment - time, place and manner.

The FAA was having so much difficulty coming up with regulations for giving licenses for commercial drones that Congress created an act, the FAA Modernization and Reform Act of 2012, to give the FAA a deadline to come up with key rules. Until then, the agency banned all commercial drones, but allowed non-commercial flights under 400 feet. In December 2015, the FAA announced that UAV's weighing more than 250 grams must be registered with the FAA.

Meanwhile, a numerous bunch of states took up their own regulations. For example, North Carolina enacted a law mandating a drone license.

Since August 29, 2016, there are two new sections of the Federal Aviation Regulations that are specific to drones. Public drone flyers can apply for a Public Certificate of Waiver or Authorization, while commercial flyers must apply for a troublesome Section 333 Exemption. Meanwhile, cases where the FAA's reach is contested would go to court and be considered under the Commerce Clause, which extends to the regulation of national airspace. Companies like Facebook and Amazon are preparing for widespread drone use for commercial purposes.

Vocabulary

Unmanned Aircraft:

The term coined by the Federal Aviation Administration (FAA), used to describe flying technology, such as drones.

Materials

1. Episode 2 Powerpoint Slides
2. Episode 2 Notes
3. Independent Activity (assessment at the end of class)

Lesson

10 min–Opening Prompt: Scenario: Is the air public?

Teacher decides whether or not to have students write their responses silently, work in groups or partners, or engage in an open whole-class discussion. If it is decided to work silently, give students five minutes to respond and five minutes to share their findings with a partner.

Teacher should facilitate discussion and prompt students to think about the following:

- What are some issues with filming private property?
- What can go wrong with flying drones?
- When you fly over private property, is the air above it also private?

25 min–Powerpoint Instruction:

Teacher guides students through the powerpoint slides. Prompting students to take notes accordingly. Additional instructions, further thinking, and discussion questions are associated with each slide in the comments.

20 min–Rights Lab Episode:

After instruction, students watch the 2nd episode of Rights Lab and engage in a teacher led discussion centering on the content of the episode.

25 min–Independent/Collaborative Assignment:

Option 1: Writing Prompt

Post the following question to the class, “Should the government be allowed to regulate drone usage? Why or Why not?” Give the students roughly 15 minutes to write a response to the question. Make sure they utilize what they learned from the episode and what they have in their notes as well.

Option 2: Debate Activity

Your class is the local council of your district, charged with drafting the drone legislation for your community.

Divide the class into groups of six. Each group will have the following roles to select from:

1. **Drone Photographer** - In favor of lenient drone regulations (for better business)
2. **Airline Company** - In favor of strict drone regulations (due to interference with planes)
3. **Victim of drone injury** - In favor of strict drone regulations (because of safety hazards)
4. **Police Captain** - In favor of lenient drone regulations (for surveillance purposes)

Each group must draft a drone legislation policy with rules pertaining to:

1. How close drones can fly to airports.
2. Can drones fly over private land?
3. How high can drones fly?
4. Do all drones need permits, or only commercial drones?
5. Do only drones over a certain size need permits?
6. What is required to get a permit? (ie. commercial pilots license or different drone license with less flight hours, etc.)

Give the students time to prepare their argument before beginning the conversation. Ensure that students provide context from the lesson to support their arguments, using their notes for regulation references.

Further Questions

1. What are some issues with flying drones? How can they be dangerous?
2. What impact do drones have on privacy?
3. What effects do drones have on surveillance?

Arguments for lenient regulations:

People should be allowed to make money; most drones do not fly in airspace of planes and therefore pose no safety risk; regulating airspace is over-regulation

Arguments for why government shouldn't allow commercial use of drones:
Interference with planes, spying, hazard to humans.

10 min-Assessment:

See attached worksheet for end-of-class assessment

Extended Assignment/Homework

Watch the panel discussion following the Rights Lab Episode & write a response.

Rights Lab Episode 2



Where Can I Fly My Drone?

Opening Question:

You're a photographer and just purchased a new drone to take aerial photographs for your next photo gallery. You fly over the University of Chicago and take pictures of the buildings and campus. You ask the school for permission, and they grant it. At your gallery, you get arrested and charged for invasion of privacy for commercial use. Do you have a case for defense?

Is the air public?

Agenda

1. The Commerce Clause
2. Control of the Sea
3. The Age of Flight
4. Unmanned Aircrafts
5. Drones in Chicago
6. Rights Lab Episode

Questions for the day

1. What is the Commerce Clause and how is it used?
2. What is the FAA?
3. Where is it legal to fly drones?
4. Is flying above someone else's land trespassing, or is the air public?
5. How do time, place & manner restrictions apply to drone use?
6. Are there any special rules/regulations in your area for drone use?

The Commerce Clause

- The basis for laws regulating business
- Allows for Congress the power to regulate exchange with other countries and within the US, including states and tribal governments
- This becomes very important for the balance of state and federal power, and deciding on issues with property and ownership

History Repeats Itself:

The ongoing issues with drones, property, and privacy aren't completely new. There have been very similar cases in American history over another major element: **water**

Gibbins v. Ogden (1824)

- **Facts:** Two steamship operators were granted a monopoly by the New York Legislator to operate on NY waters. These operators licensed Ogden to operate a ferry boat between NYC and New Jersey. A competing company, Gibbins, began operating a ferry boat on the same waters, licensed under a federal law. Ogden sues Gibbins for operating over “their” water route.
- **Issue:** Who has the power in this situation, the New York Legislator or US Congress under the Commerce Clause?
- **Holding:** Congress has the power over State Law
- **Reasoning:** Congress has the authority to grant business licenses under the Commerce Clause. Commerce includes navigation. Congress may regulate commerce between any foreign power and any state.

United States v. Rands (1967)

- Major dispute revolving around commerce and navigable waters
- Brought the power of Congress through the Commerce Clause into question
- It was decided that navigable waters can no longer be owned by individuals, it is now considered the public property of the nation

Water Rights

Riparian Rights

- The right over control of navigable waters, depending on who possessed land along the path
- Taken from English Common Law

Gibbins v. Ogden (1824)

- Granted Congress the power to control commerce on water
- Eventually overtook Riparian Rights

US v. Rands (1967)

- Case ends in water being the public property of the nation
- Navigable water can no longer be deemed private property of individuals

The Age of Flight

The Age of Flight

- In 1903, Orville Wright flew the first powered plane
- In 1925, the Air Mail Act was passed, paving the way for the commercial airline industry
- In 1926, the Air Commerce Act allowed the Secretary of Commerce to develop commerce and safety regulations

In 1958, a new aeronautics branch of the Department of Commerce took control of the airways from the US Postal Service, called the **Federal Aviation Administration**

Constitutional Vocabulary

Unmanned aircraft: The term coined by the Federal Aviation Administration (FAA), used to describe flying technology, such as drones.

The regulation of unmanned aircrafts fall under 3 categories:

1. **Time**
2. **Place**
3. **Manner**

Current Law

All business and recreational drones over 250 grams must be registered by the FAA

This is known as a Section 333 exemption

Even if you get approval from all parties and properties being recorded with a drone, you can still get fined if your drone is not approved by the FAA

Flying in Chicago

This is the current law held in Chicago:

- No flying above 400 feet
- No flying within five miles of an airport
- No flying over:
 - People
 - Private Property
 - Schools
 - Hospitals
 - Businesses
 - Police Stations

Rights Lab Episode 2

[Where can I fly my drone?](#)

Name _____ Date _____ Class _____

Questions for the Day:

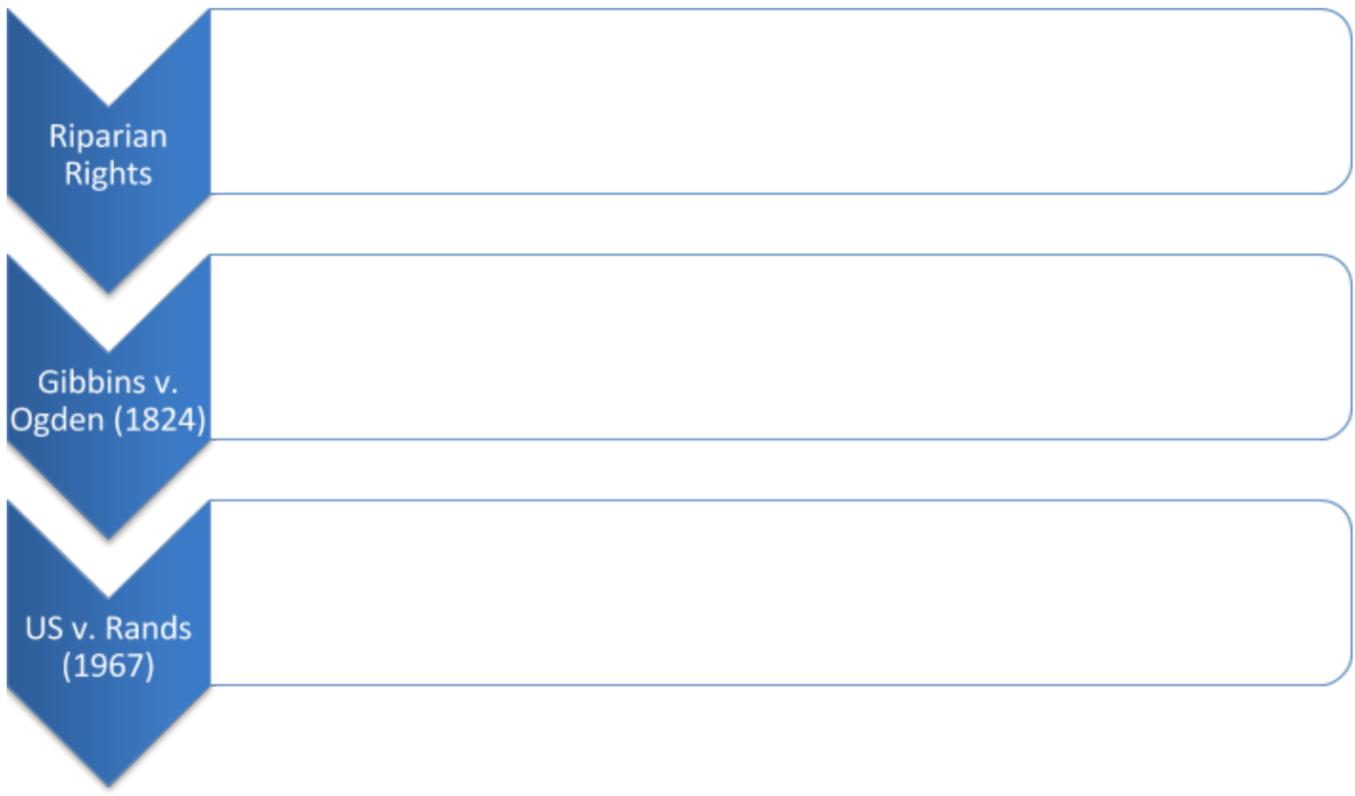
1. **What is the Commerce Clause and how is it used?**
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The Commerce Clause

Gibbins v Ogden (1824)

United States v Rands (1967)

Name _____ Date _____ Class _____



Federal Aviation Administration	Unmanned Aircraft

Current Law	Flying in Chicago

Name _____ Date _____ Class _____

Directions: Answer the questions in complete sentences and to the best of your knowledge.

1

a) What was the significance of the Commerce Clause?

b) How does precedent affect law in America?

Name _____ Date _____ Class _____

2

a) What do I need to do to fly a drone legally on private property?

b) What are the three categories for the regulation of an unmanned aircraft?

1) _____

2) _____

3) _____

Assessment: Rights Lab Episode 2: Where Can I Fly My Drone?

Name _____ Date _____ Class _____

3 What are the current regulations for flying drones in Chicago?