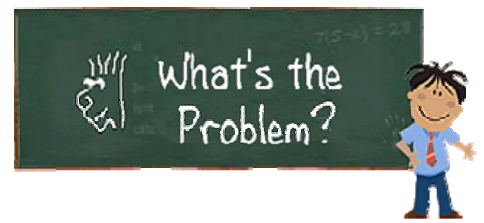


Teacher Instructions:



Problem Scenario: “Up in the Air...”

The Main Problem: *You are the mayor of the city. A new company in the area wants to use Unmanned Aerial Vehicles (known as “drones”) for commercial purposes that will be useful to the citizens in the community. What are the issues that need to be considered, and should the company be allowed to operate these flying drones in the city’s air space?*

Your students will be viewing this problem from an **integrated** perspective.



Should the flying drones have lift off?

Students will review the uses of commercial drones as well as the major concerns, and use that information to decide how to proceed.

Step ①

**Review
Stimulus
Items**

Stimulus Item #1 — “Amazon to Use Drones” (video)

Stimulus Item #2— “Commercial Drones” (Web Post)

Stimulus Item #3— “Ethics of Drones” (Article)

A low-readability option has been provided so students in lower grades can participate in this problem scenario

**ALTERNATE Stimulus and Activity for Lower Grades —
“Five Obvious Uses for Drones ” (list to be read aloud)**

***Students should take notes as they review the Stimulus Items*

Step ②

**Classroom
Discussion**

Lead a **class discussion** about issues related to the topic.
You are being provided a sheet to help you guide the classroom discussion.

Extended Responses: Have students answer the following questions. Remind students to use information from the Stimulus Items to support their response.

- 1. In what ways could commercial drones be useful? What are concerns that would arise from having drones flying in nearby air space?**
- 2. Should a company be allowed to fly drones within the city’s airspace? Why or why not? How is this in the best interest of the community?**

Step ③

**Student
Response**

****students should have access to their notes as they enter their answers*

****students may also have access to the Stimulus Items as they enter their answers*

EXTENDED PRODUCT (Optional): Have your students think about the benefits and concerns of using flying drones for commercial use. They must then write two **cover letters for petitions** that focus on both sides of the issue. The first petition will be to garner support to allow a company to use flying drones in the city’s air space. The cover letter must explain why residents should support this and how it will benefit the community. The second petition should be to stop a company from using flying drones. This cover letter should convince residents that the practice is too risky and dangerous.

Step ④

Analysis

Rubrics to grade student entries have been provided, and all questions have been mapped to the content standards.