‘WEATHER’

CLOUDY WITH A CHANCE OF THUNDER

UNDERSTANDING THE POWER OF THUNDERSTORMS

SNAPSHOT

01

Objective

- Analyze and evaluate the formation of thunderstorms, including the key meteorological factors that contribute to their development. Integrate this understanding to critically assess and evaluate how these storms specifically affect aviation, with a particular focus on the challenges and risks posed to drone flight.

Materials Needed

- **Computer/laptop/internet**
- **Mobile device**

Resources:

1. **Anatomy of a Thunderstorm (click here to access)**
2. Anatomy of a Thunderstorm Research (Page 2)
3. Bonus: Have student access and play **Make a Thunderstorm (click here to access)**

Lesson Steps:

1. As a whole class view and discuss resource 1: Anatomy of a Thunderstorm presentation.
2. Have students complete the research document found in resource 2 referring to the thunderstorm presentation as needed.
3. Bonus: If time allows have student access and play the interactive make a thunderstorm game.

45 MIN LESSON

Questions to ask:

- What causes a thunderstorm?
- How does a thunderstorm affect flight?
- What are the stages of a thunderstorm?
- Why is it important to know about thunderstorms as a drone pilot?

RESOURCE 2: ANATOMY OF A THUNDERSTORM RESEARCH

02

Use the resources provided to help you research your thunderstorms and complete the following:

1. What are the three ingredients needed to form a thunderstorm?

2. What are the three stages of a thunderstorm?

3. Name and describe what happens in each stage of a thunderstorm.
Stage 1:

Stage 2:

Stage 3:

4. Why does humidity matter in the formation of a thunderstorm?

5. If temperatures near the ground differ from temperatures up high what happens?

6. What are the four biggest hazards for aviation associated with thunderstorms?

7. How far can lightening strike from a thunderstorm?

8. What is the most dangerous stage of a thunderstorm for flying?

9. What are squall lines and supercell thunderstorms?

10. Who is responsible for researching the weather before deciding if it's safe to fly?