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## 9 Planetary Boundaries Activity

### Timeline:

Tuesday- Boundaries 1, 2

Wednesday- Boundaries 3, 4

Thursday- Boundaries 5, 6, 7

Friday-Boundaries 8, 9

complete the sections below for **each of the 9 planetary boundaries**. Use the provided resources to guide your research. Be sure to include clear explanations and examples.

### Planetary Boundary #1: Climate Change

#### 1. Brief Description:

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#### 2. Example of an Issue in California:

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#### 3. What Can Society Do to Reduce Risks?

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#### 4. Boundary Status (check one):

Below boundary (safe operating space)

- In the zone of uncertainty
- Beyond the zone of uncertainty

**5. Add a Visual (image, diagram, or graph):**

[Attach or draw here]

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## Planetary Boundary #2: Biosphere Integrity

**1. Brief Description:**

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**2. Example of an Issue in California:**

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**3. What Can Society Do to Reduce Risks?**

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**4. Boundary Status (check one):**

- Below boundary (safe operating space)
- In the zone of uncertainty
- Beyond the zone of uncertainty

**5. Add a Visual (image, diagram, or graph):**

[Attach or draw here]

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## Planetary Boundary #3: Land-System Change

**1. Brief Description:**

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**2. Example of an Issue in California:**

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**3. What Can Society Do to Reduce Risks?**

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**4. Boundary Status (check one):**

- Boundary not yet quantified
- Below boundary

## **Planetary Boundary #4: Freshwater Use**

**1. Brief Description:**

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**2. Example of an Issue in California:**

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**3. What Can Society Do to Reduce Risks?**

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**4. Boundary Status (check one):**

- Below boundary (safe operating space)
- In the zone of uncertainty
- Beyond the zone of uncertainty

**5. Add a Visual (image, diagram, or graph):**

[Attach or draw here]

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# Planetary Boundary #5: Biochemical Flows

**1. Brief Description:**

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**2. Example of an Issue in California:**

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**3. What Can Society Do to Reduce Risks?**

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**4. Boundary Status (check one):**

- Below boundary (safe operating space)
- In the zone of uncertainty
- Beyond the zone of uncertainty

**5. Add a Visual (image, diagram, or graph):**

[Attach or draw here]

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# Planetary Boundary #6: Ocean Acidification

**1. Brief Description:**

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**2. Example of an Issue in California:**

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**3. What Can Society Do to Reduce Risks?**

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- 4. Boundary Status (check one):**
- Below boundary (safe operating space)
  - In the zone of uncertainty
  - Beyond the zone of uncertainty

**5. Add a Visual (image, diagram, or graph):**  
[Attach or draw here]

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## **Planetary Boundary #7: Atmospheric Aerosol Loading**

**1. Brief Description:**

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**2. Example of an Issue in California:**

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**3. What Can Society Do to Reduce Risks?**

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- 4. Boundary Status (check one):**
- Below boundary (safe operating space)
  - In the zone of uncertainty
  - Beyond the zone of uncertainty

**5. Add a Visual (image, diagram, or graph):**  
[Attach or draw here]

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## **Planetary Boundary #8: Stratospheric Ozone Depletion**

**1. Brief Description:**

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**2. Example of an Issue in California:**

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**3. What Can Society Do to Reduce Risks?**

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**4. Boundary Status (check one):**

- Below boundary (safe operating space)
- In the zone of uncertainty
- Beyond the zone of uncertainty

**5. Add a Visual (image, diagram, or graph):**

[Attach or draw here]

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## **Planetary Boundary #9: Novel Entities**

**1. Brief Description:**

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**2. Example of an Issue in California:**

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**3. What Can Society Do to Reduce Risks?**

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**4. Boundary Status (check one):**

- Below boundary (safe operating space)
- In the zone of uncertainty
- Beyond the zone of uncertainty

**5. Add a Visual (image, diagram, or graph):**

[Attach or draw here]

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