Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_

**Mini-Lab: Wind & Waves**

**Background:** The purpose of this activity is to look at the effects of wind speed, wind duration and fetch on waves.

**Materials:**  Large, shallow, rectangular pan filled with water & small object(s) that float.

**Prelab:**

1. Define Fetch:

**Procedure:**

* Fill your pan with water. To help see movement and wave height, add a small colored bead or other object that floats.

**No Wind:**

1. **Observation**: How does the water appear when there is no wind?

**Wind Speed:** How does wind speed affect waves?

1. Wind Speed **PREDICTION**
   1. Predict how the water will vary in appearance when: someone blows gently on the water for 5 seconds:
   2. Predict how the water will vary in appearance when: someone blows hard on the water for 5 seconds:
2. Wind Speed **OBSERVATIONS**
   1. Have someone **blow gently** on the water for **5 seconds**. **Record your observations:**
   2. Have someone **blow hard** on the water for **5 seconds**. **Record your observations:**

**Wind Duration:** How does the length of time that wind blows affect waves?

1. Wind Duration **PREDICTION**
   1. **Predict** how the water will vary in appearance when: someone **blows gently** on the water for **5 seconds**:
   2. **Predict** how the water will vary in appearance when: someone **blows gently** on the water for **10 seconds**:
2. Wind Duration **OBSERVATIONS:**
3. Have someone **blow gently** on the water for **5 seconds**. **Record your observations:**
4. Have someone **blow gently** on the water for **10 seconds**. **Record your observations:**

**Fetch:** How does the distance the wind blows across the surface affect waves?

1. Fetch **PREDICTION**
   1. **Predict** how the water will vary in appearance when: someone **blows directly down onto surface (NOT across the surface)**  for 5 seconds:
   2. **Predict** how the water will vary in appearance when: someone **blows across the surface of the water** for 5 seconds:
2. Fetch **OBSERVATIONS:**
3. Have someone **blow directly down onto surface** for 5 seconds. **Record your observations:**
4. Have someone **blow across the surface of the water** for 5 seconds. **Record your observations:**

**Analysis/Summary Questions**

1. **How did each of the following affect waves?** \*\*\* Use **complete sentences and data** from your test as examples in your **explanations**.
   1. Wind speed
   2. Wind duration
   3. Fetch