Name: _____ Block: _____

PRIVATE INVESTIGATOR

1. You are responsible for collecting data about the **weather**. Collect the weather data (air temperature, wind speed, and cloud cover) for each of the 8 virtual days.

2. Observations and notes:

a. Talk to the people who live near the pond and write down notes about what they say. Be sure to find:
   - Manny on June 30th
   - Mr. Mulligan on July 25th
   - Ms. Vasquez on July 16th
   - Ranger Susan on July 28th and August 15th

   Who else can you find to talk to? Write down notes about the people you find and what they say.

b. Write down your observations about the pond and surrounding area.
   - What day did it rain?
   - What day did all the large fish die?
   - What else do you notice about the pond and surrounding area? Write down notes about how things **look** on different days, and any changes you observed over time.

c. Use the **data view** graphs to look at the weather data you collected. Describe any changes in air temperature, wind speed, and cloud cover over time. Write down how you think these changes might relate to other things happening around the pond.

Name: _____ Block: _____

NATURALIST

1. You are responsible for collecting data on **populations of fish and birds**. Collect the population data for largemouth bass, bluegill, fathead minnows, and herons for each of the 8 virtual days.
   (Note: you can't collect population data for the bass and bluegills on August 15, because there aren't any of them to click on. So it's okay to leave that blank.)

2. Observations and notes:

a. Read the **field guide** pages about each of the three fish species. Write down notes that might help you figure out reasons for changes in the fish populations.

b. Use the **data view** graphs to look at the fish population data you collected. Describe how each fish population changes over time. Write down your ideas about why the fish populations might have changed, and how this might relate to other things happening around the pond.

c. Look at the heron population data you collected. How does it change over time? Write down your ideas about why the heron population changed.

Name: _____ Block: _____

MICROSCOPIC SPECIALIST

1. You are responsible for collecting data on **populations of microscopic organisms**. Collect the population data for bluegreen algae, green algae, and bacteria for each of the 8 virtual days.

2. Observations and notes

a. Read the **field guide** pages about the bluegreen algae, green algae, and bacteria. Write down notes that might help you understand changes in each of their populations.

b. Use the **data view** graphs to look at the bluegreen algae and green algae population data you collected. Describe any changes over time. Write down your ideas about why the algae population might have changed, and how this might relate to other things happening around the pond.

c. Use the **data view** graph to look at bacteria population data. Describe any changes in the bacteria population over time. Write down your ideas about why the bacteria population might have changed, and how this might relate to the algae, or to other things happening around the pond. *It may also help to review your notes on the learning quest about bacteria.*

Name: _____ Block: _____

WATER CHEMIST

1. You are responsible for **Water measurement data**. Collect the data for the 7 water measurements: water temperature, dissolved oxygen, phosphates, nitrates, turbidity, pH, and Chlorophyll a, for each of the 8 virtual days.

2. Observations and notes:

a. Use the **data view** graphs to look at each of the measurements you collected. Describe in words how each variable changes over time.

- Water temperature
- Dissolved oxygen
- Phosphates and nitrates
- Turbidity
- pH
- Chlorophyll a

b. Write down any ideas about why the water measurements might have changed, and how the changes might relate to other things happening around the pond. *It will help to review your notes from the learning quests on chlorophyll, turbidity, pH, nitrates and phosphates, and dissolved oxygen.*