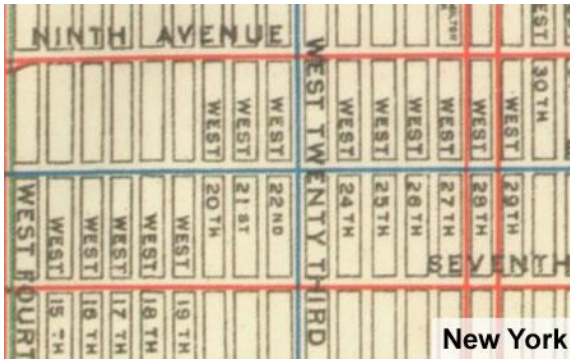Name: _____   Date: _____

Student Exploration: City Tour (Coordinates)

Vocabulary: coordinates, horizontal axis, ordered pair, origin, vertical axis

Prior Knowledge Questions (Do these BEFORE using the Gizmo.)
The two historical maps below show sections of famous cities.

1. Based on the maps, which city would be easier to find your way in? _____

2. Why? _____

Gizmo Warm-up
In the *City Tour* Gizmo, you are a tourist visiting (fictional)
cities all over the world. The tour begins in **San Cristobel**.

1. Check that **Move using arrows** is selected. You
    should be at your hotel (🏠). Click the right arrow 3
    times to ride your bike 3 blocks east. Then click the up
    arrow 5 times to ride your bike 5 blocks north.

    A. What avenue are you on now? _____

    B. What street are you on now? _____

    C. Click **Visit here**. What did you find at this location? _____

2. Click **Resume travel**, and select **Move from my location**. Use this method to get to the
    landmark on 7th Avenue and 3rd Street. Click **Visit here**.

    What did you find? _____   (Click **Resume travel** when done.)

| **Activity A:**

Visiting San Cristobel | Get the Gizmo ready:

• Click **Return to hotel**.
• Check that **San Cristobel** is selected. (If not, click **Previous city** until your reach San Cristobel.) | |

Welcome to San Cristobel, a sparkling jewel on the Caribbean Sea. The map of San Cristobel shows avenues on the **horizontal axis** and streets on the **vertical axis**. You will start at your hotel, which is located at the **origin** of the grid (where the horizontal and vertical axes cross).

1. Using any method, move to one of the landmarks labeled by a green star.

    A. What is your location? _____

    B. Click **Visit here**. Which landmark are you visiting? _____

2. Click **Resume travel**. Turn on **Show my address**. **Coordinates** name a location. For a flat surface or graph, coordinates of a point are written as an **ordered pair** such as "(2, 3)."

    A. What are the coordinates of your current location? _____

    B. What does the first number tell you? _____

    C. What does the second number tell you? _____

    D. What is the difference between the points (2, 3) and (3, 2)? _____

    _____

3. Select **Move using arrows**. Turn on **Places to visit** and visit all four locations on this list. Also visit the five spots marked by green stars on the map. (Click **Visit here** at each place!)

4. A friend of yours wants to visit San Cristobel. List three landmarks you would recommend visiting. Also give the location and coordinates of each place. (An example is given.)

Landmark	**Location**	**Coordinates**
Shipwreck	10th Avenue and 6th Street	(10, 6)

5. What is an advantage of using coordinates to describe a location? _____

_____

| **Activity B:**

Scavenger hunt | <u>Get the Gizmo ready</u>:

• Click **Next city**. | |

You've signed up for a scavenger hunt! To answer these questions, visit all the landmarks (the **Places to visit** plus the green stars) in Snowden, Saltuna, Morivec, and Randomaria. (Note: The Randomarians are tricky—they switch the locations of their landmarks each time you visit!)

Use either method of moving. Click **Next city** or **Previous city** to go from one city to another. Find the answer to each question, name the landmark, and list the coordinates. Happy travels!

1. In Saltuna, when was the ancient Anasazi village deserted? _____

    Landmark: _____   Coordinates: _____

2. Who built soup kitchens and orphanages in Morivec? _____

    Landmark: _____   Coordinates: _____

3. How do they produce meat in Randomaria? _____

    Landmark: _____   Coordinates: _____

4. What can you find on the Chapman's front lawn in Snowden? _____

    Landmark: _____   Coordinates: _____

5. Why did they build a city wall around Morivec? _____

    Landmark: _____   Coordinates: _____

6. Where can you travel if you go to the Randomaria spaceport? _____

    Landmark: _____   Coordinates: _____

7. <u>Challenge</u>: Where could you go to hear throat singing? _____

    City: _____   Landmark: _____   Coordinates: _____

8. <u>Challenge</u>: Where did Babyface Lee brew kombucha? _____

    City: _____   Landmark: _____   Coordinates: _____