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.
	1. What avenue are you on now? \_\_\_\_\_\_\_\_\_\_
	2. What street are you on now? \_\_\_\_\_\_\_\_\_\_
	3. 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.)

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| --- | --- | --- |
| **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.)
 | 1019SE2 |

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.
	1. What is your location? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	2. 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).”
	1. What are the coordinates of your current location? \_\_\_\_\_\_\_\_\_\_
	2. What does the first number tell you? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. What does the second number tell you? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	4. What is the difference between the points (2, 3) and (3, 2)? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. 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!)
2. 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) |
|  |  |  |
|  |  |  |
|  |  |  |

1. What is an advantage of using coordinates to describe a location? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Activity B:** **Scavenger hunt** | Get the Gizmo ready: * Click **Next city**.
 | 1019SE3 |

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: \_\_\_\_\_\_\_\_\_

1. Who built soup kitchens and orphanages in Morivec? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Landmark: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Coordinates: \_\_\_\_\_\_\_\_\_

1. How do they produce meat in Randomaria? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Landmark: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Coordinates: \_\_\_\_\_\_\_\_\_

1. What can you find on the Chapman’s front lawn in Snowden? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Landmark: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Coordinates: \_\_\_\_\_\_\_\_\_

1. Why did they build a city wall around Morivec? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Landmark: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Coordinates: \_\_\_\_\_\_\_\_\_

1. Where can you travel if you go to the Randomaria spaceport? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Landmark: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Coordinates: \_\_\_\_\_\_\_\_\_

1. Challenge: Where could you go to hear throat singing? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

City: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Landmark: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Coordinates: \_\_\_\_\_\_\_\_\_

1. Challenge: Who was shot by Sheriff’s deputies in 1846? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

City: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Landmark: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Coordinates: \_\_\_\_\_\_\_\_\_