

## ***Your Galactic Address***

Usually you think of your address as only three or four lines long: your name, street, city, and state. But to address a letter to a friend in a distant galaxy, you have to specify where you are in a greater span of scales.

### **Before Class**

1. Get a map of your school and reduce/photocopy it (or sketch one) so that it fits on Galactic Address Map 2 (p. 33) as a photocopy master. (Another option would be to make this an additional exercise for your students.)
2. Reduce/photocopy a map of your neighborhood and a map of your city to make a photocopy master for Galactic Address Maps 3–4 (p. 34).
3. Reduce/photocopy a map of your state to put in the upper section of Galactic Address Map 5 photocopy master (p. 35).
4. Use the resulting photocopy masters (pp. 33–36) to make a complete set of Galactic Address Maps for each student or team of students.

### **In Class**

1. Ask a student volunteer for his or her address.
2. Explain if you were to write a letter to an alien being from another planet, you would need a much more detailed address than that! A complete galactic address must span many distance scales.
3. Hand out Galactic Address Maps 1 and 2. Have the students make a rough sketch map of the classroom with the desks numbered. Have each student invent a symbol to represent themselves and mark that symbol on the appropriate spot on their sketch. Have them write their desk number in the space provided.
4. Have the students mark their symbol on the proper room number in the map of the school Galactic Address Map 2. Have them mark their room number in the blank provided.
5. Hand out Galactic Address Maps 3 and 4. Have students mark their symbols in the proper places on each map, neighborhood and city. Have them fill in the address blanks, “street number,” and “street” on the right side of the page. They can all use the same school address.
6. Hand out Galactic Address Maps 5 and 6. Have students mark their symbols on each map appropriately. Have them write the proper “City” and “State” in the spaces on the right side of the page.
7. Hand out Galactic Address Maps 7 and 8. Have students mark their symbols on each map and write the correct “Country” and “Planet” in the spaces on the right side of the page.
8. Hand out Galactic Address Map 9. Tell the class that our solar system is about  $\frac{2}{3}$  of the way from the center to the edge of the galaxy. Also, we are located on the outer edge of the “major spiral arm.” The students can use those clues to mark their symbols at their location in the Milky Way Galaxy. Have them fill in the “Galactic Arm” space on the right side of the page.
9. Finally, ask the students to write in the bottom part of Map 9 their complete galactic address, all the way from which desk they are sitting in to which galaxy we are in. Tell them that the Milky Way is part of a cluster of galaxies called *The Local Group*.

### **Materials**

For each student, one of each of the address maps:

- (1) Classroom
- (2) School
- (3) Neighborhood
- (4) City
- (5) State
- (6) Country
- (7) World
- (8) Solar System
- (9) Milky Way Galaxy

## **Galactic Address Map 1: Classroom**

Please mark where your desk is.

I am at desk number \_\_\_\_\_

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## **Galactic Address Map 2: The School**

Please mark where your classroom is.

I am in classroom \_\_\_\_\_

**Galactic Address Map 3: The Neighborhood**

Please mark where your school is.

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**Galactic Address Map 4: The City**

Please mark where your school is.

Street Number and Street

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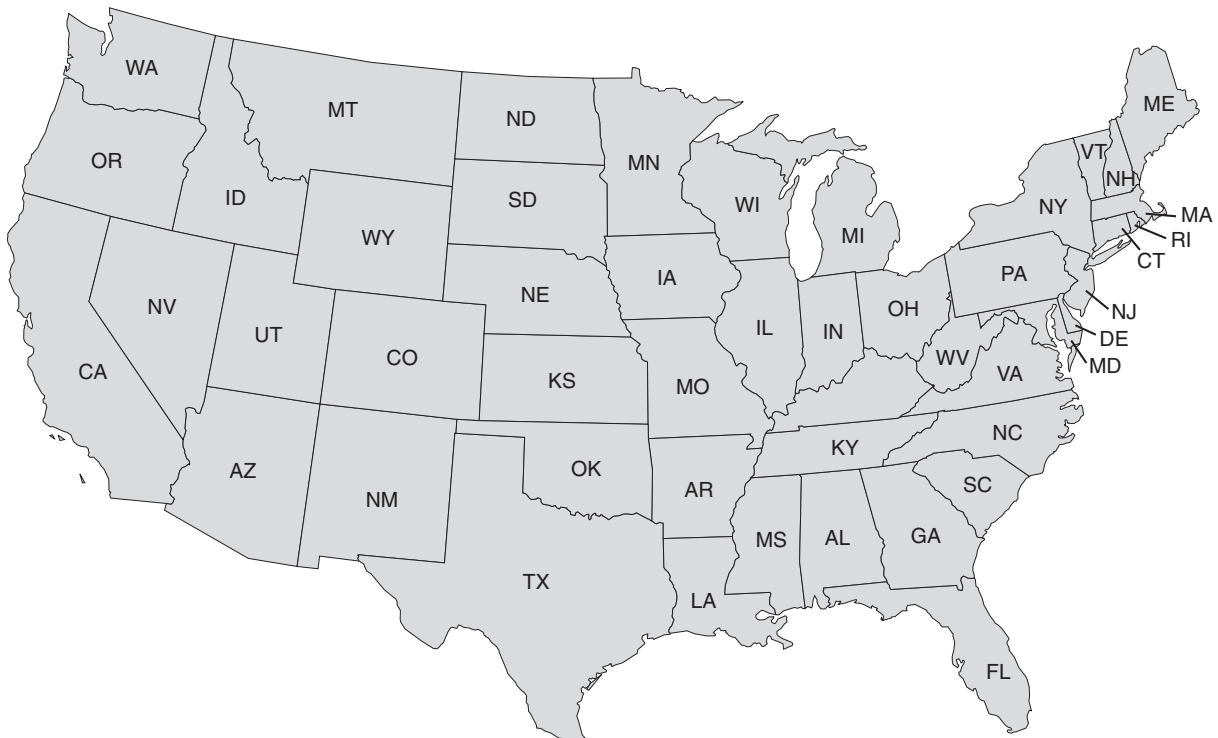
## Galactic Address Map 5: The State

Please mark where your city is.

My City

## Galactic Address Map 6: The Country

Please mark where your state is.



My State

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## Galactic Address Map 7: The World

Please mark where you are.

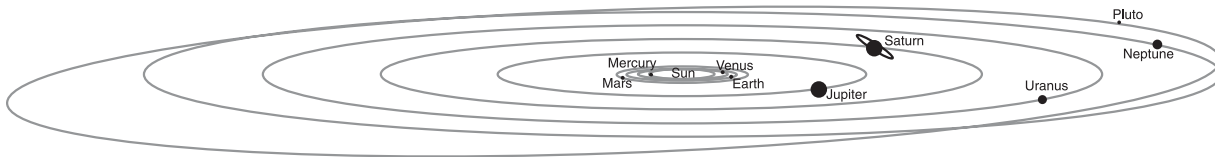


My Country \_\_\_\_\_

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## Galactic Address Map 8: The Solar System

Please mark where your world is.

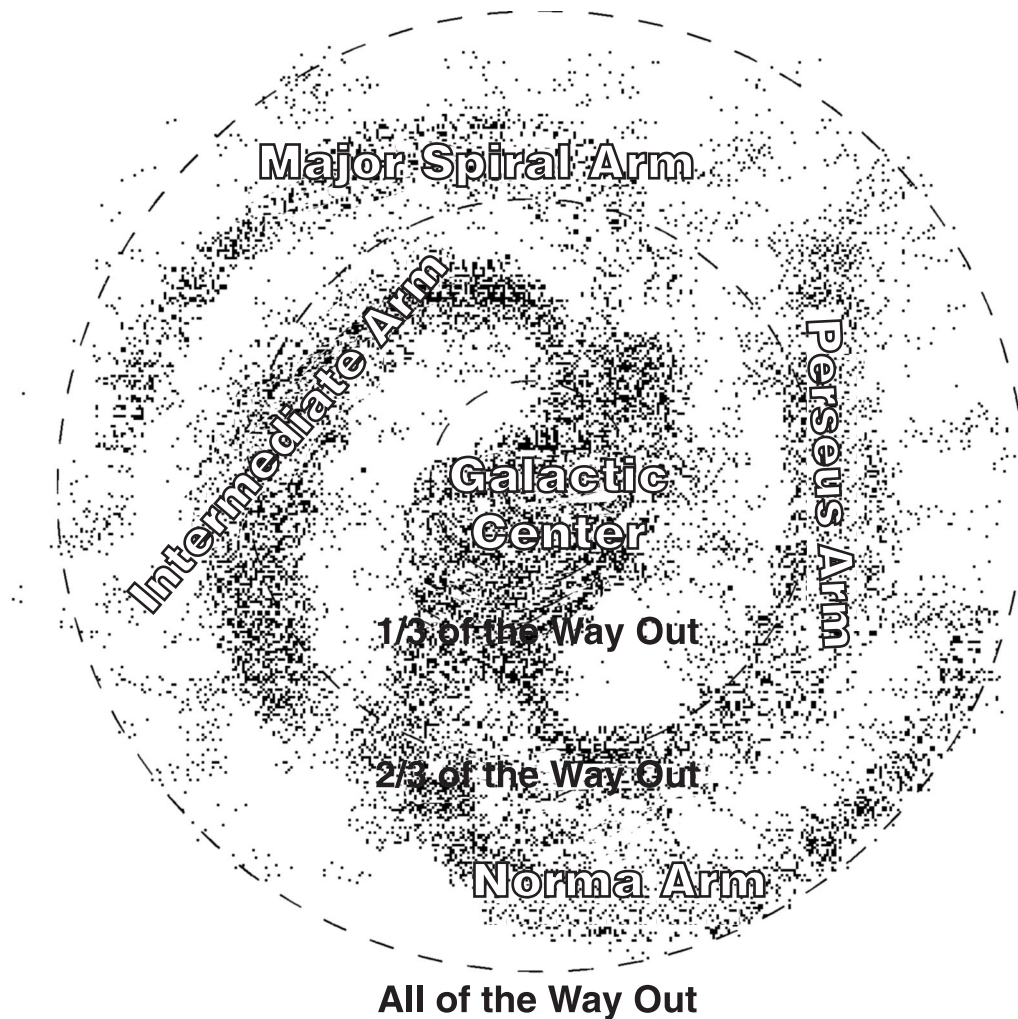


My Planet \_\_\_\_\_

Note: Planets' orbits are really very nearly circular. Why do they seem like long, skinny ovals here?

## Galactic Address Map 9: The Milky Way Galaxy

Please mark where your world is.



My Planet System

Please write your complete galactic address below.

Your Name:

1. Classroom:
2. School:
3. Street & #:
4. City:
5. State:

6. Country:

7. Planet:
8. Planet System:
9. Galactic Arm:
10. Galaxy:
11. Galaxy Cluster: