

Spatial Reasoning:

Some questions to ask about a place

Modes of spatial reasoning are ways of thinking. They make it easier to learn about places and to organize that knowledge in our heads. Each mode of thinking is a specific way of looking at relationships among places. Here are some questions to ask about a "new" place:

Comparison - How is this place like a place that you already know? How is it different? Is it colder, hotter, or about the same? Are the trees or buildings the same or different? Is it more or less crowded? Are most of the people older or younger? Do they wear the same kind of clothes or speak the same language?

Aura - Is there a place nearby that has an influence on this place (like a noisy highway, or a smelly factory)? Is there a shopping center or movie theater or nice park nearby? (That might make this a nicer place to live.) On the other hand, is there a polluted stream or dangerous area nearby?

Region - Does this place look like it is part of a bunch of similar places (like a group of blocks with apartments, or an area of farms with cornfields and cows)? If so, you can draw a line around the group of similar places on a map. The result is called a geographic region (like the Corn Belt, or an industrial area in a city, or the region in Texas where most people speak Spanish).

Hierarchy - Is this place located inside of a particular large geographic area, like a state, country, watershed, or medical service area? (Unlike a region, the larger area in a hierarchy might have many different kinds of places or regions within it.) Spatial hierarchies can make decisions more complicated. For example, if your city is inside a certain state, that political hierarchy has an effect on what you do, because you have to obey the laws of the state as well as the city.

Transition - Can you think of this place as part of a sequence of places? A spatial sequence is a line of places that go in a particular direction, like from the bottom to the top of a mountain, or from the coast to the middle of a country. How do conditions change as you go from one end of your sequence to the other? How do local conditions affect what people can do in various places in the sequence?

Analogy - Is there another place that is located in a position that is similar to the position of your place? For example, maybe another continent has a place that is at the same latitude as this place. If so, the two places might have the same kind of weather, even though they are thousands of miles apart. Or maybe another city also has a place that has a position like this place in this city. For example, both places might be next to a river downstream from a factory.

Pattern - Is your place part of a group of places that are arranged in particular way? Maybe they are all in short lines that run north-south. Or maybe they form rings, waves, or some other non-random arrangement. What forces might be responsible for the spatial pattern that you observe? How does that pattern affect transportation, communication, or other human activity?

Association - Are two features in your place likely to occur together with each other, in the same places? For example, grain elevators usually occur in towns that are near wheat fields. Gas stations often are located close to exits from a freeway. Can you identify a reason why those particular features tend to occur together in the same places? For example, a disease called malaria is spatially associated with Anopheles mosquitoes (they occur together in the same parts of Africa), because people are likely to catch malaria only if that kind of mosquito bites them after it has bitten someone else with the disease.