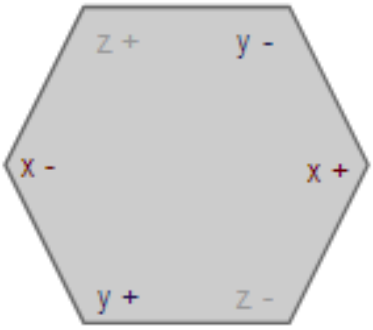
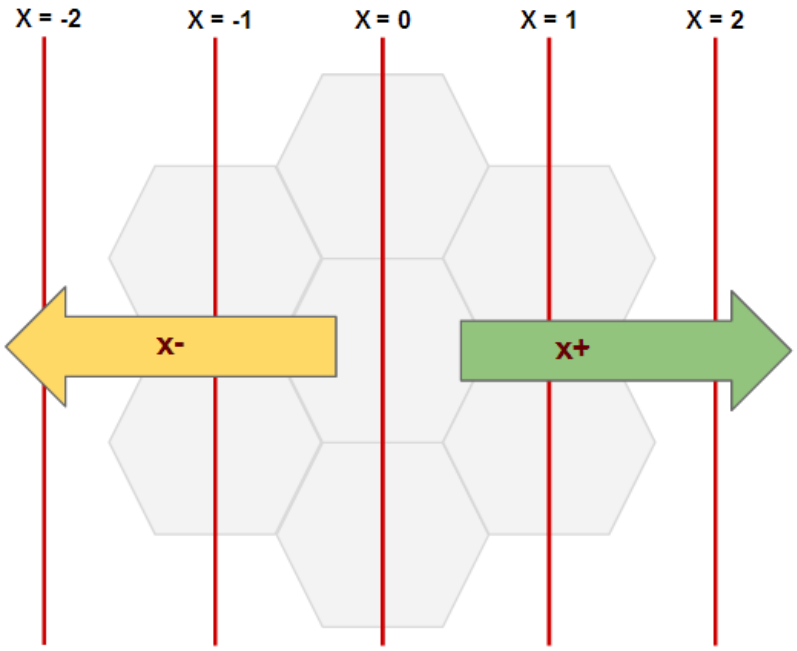
Hexagonal Grids

Catan uses hexes to build the map. We run into a problem then when trying to determine where a single hex falls, because there are three dimensions to each hex, not two. We can't use a traditional XY grid system then to build our map.

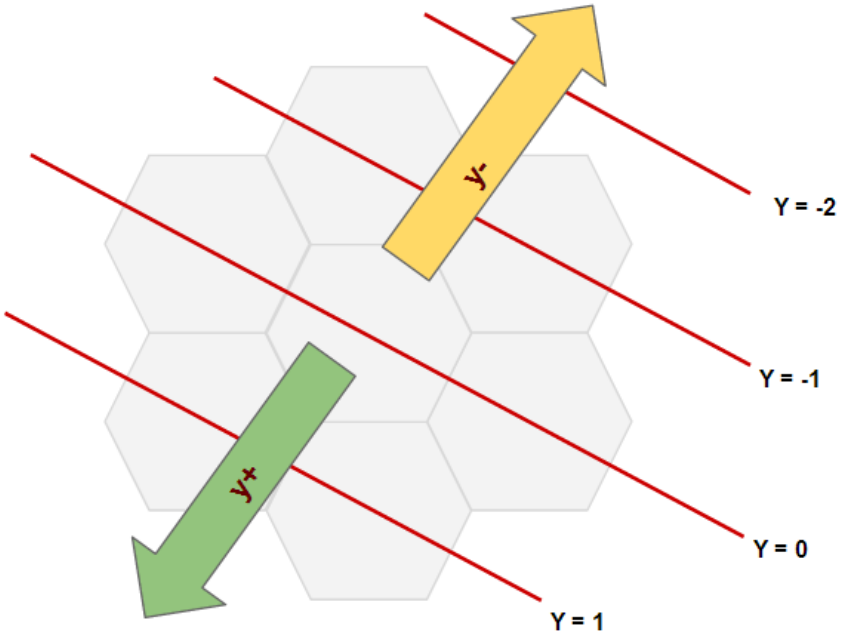
Each spot on this grid has three directions: x, y, and z.



Since we really don't care about the z-axis, we can simplify our mapping system by only using the x and y directions.

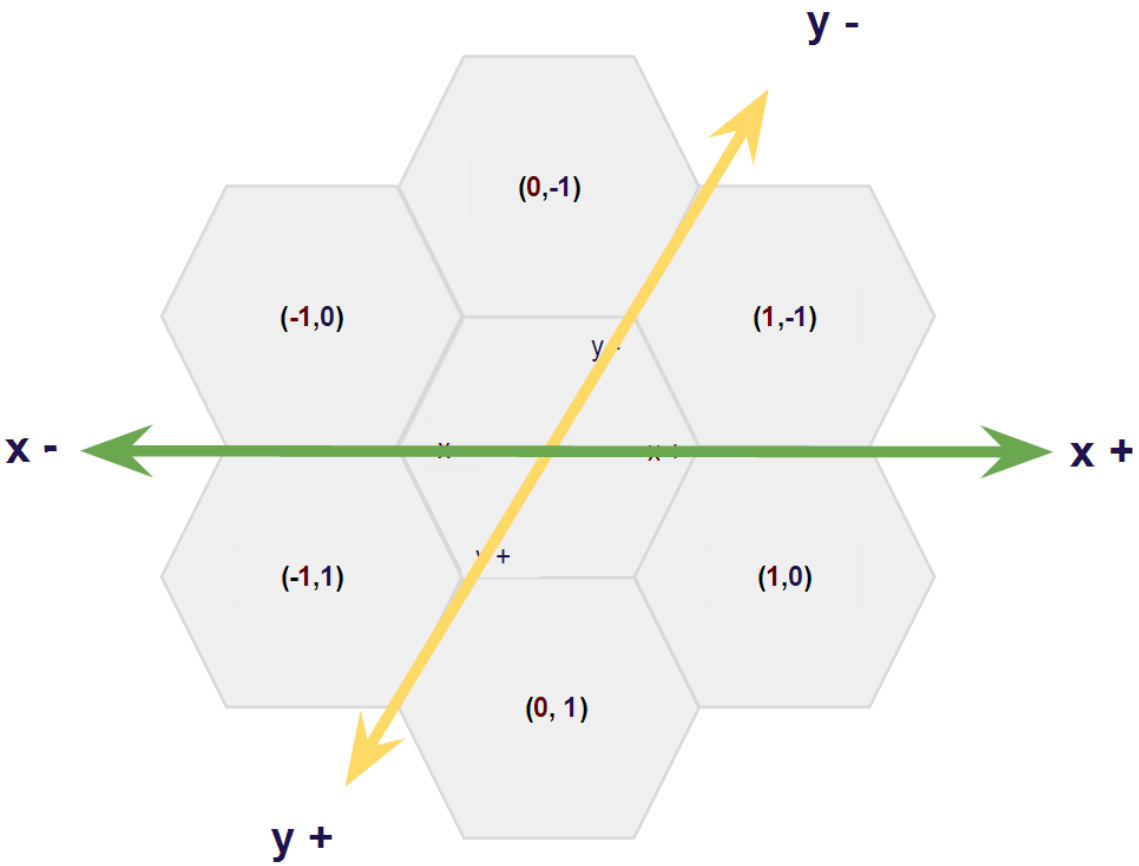


The x direction works the way we're used to: left to right.



The y-direction runs diagonally instead of vertically, and increases downwards like screen coordinates.

When you combine the two systems, you get a grid with an orthogonal coordinate system:



Side note: Each hex shares edges with the hexes surrounding it. This is important to remember as you determine which hexes a person is building on.