Q: When do you reject or retain the null hypothesis?

Well, let me try to explain this as simple as possible. Let us use one-sample z test (Dr. Meyer's Problem in our overhead and the video). Suppose we know the population mean is 250 and population standard deviation is 50. (Some kind of test scores). Then you would like to know whether or not the population of home-schooled children would have a higher or lower mean than the general population. So you take a sample of 25 home-schooled children and give the test. They scored the mean of 272. It is higher than the population mean of 250 (that is, "descriptively speaking"). Are these 22 points large enough to say that the mean of ALL home-school children have a higher mean than the general population (that is, "inferentially speaking)? Or these 22 points within the reasonable range of fluctuation that you would expect with this sample size of 25? (Remember, even if you take the sample of 25 from the distribution of $\mu = 250$, each sample mean would differ somewhat.) So our null hypothesis is:

H$_0$: $\mu = 250$

We will find out how much of fluctuation of the sample means around 250 is "reasonable" range given the sample size of 25. By going through the steps of hypothesis testing, you find out that the mean of 272 could occur assuming $\mu = 250$, but chances are so small (probability = .0278). In other words, it is less than 5% chance that the sample mean of 272 came from the distribution of $\mu = 250$. Then, someone has to decide what probability is "small". Researchers typically decide 5% or less is "small". (This is the level of significance or also known as the alpha level.) In other words, the researcher decides that the "reasonable" range is the 95% range.

So in this case, you reject the null ($\mu = 250$), knowing we can be wrong about 2.78% of the time (but "small" enough), and state that "the population mean for home-schooled children are significantly different from the general population ($z = 2.2$, $p = .0278$)." The last parenthesis is important. You are reminding people that you can be wrong 2.78% of the time. (Better protect your self!)

Now, you can also say that "the population mean for home-schooled children are significantly HIGHER THAN the general population ($z = 2.2$, $p = .0278$)."   Why? Because 272 is higher than 250.

In sum, rejecting the null hypothesis means that your sample is so unlikely (typically less than 5%) to come from the predetermined null distribution. Retaining the null hypothesis (i.e., fail to reject the null hypothesis) means that you could not find enough evidence to say that your sample came from different distributions.