Reasons for installing a new chain:
1. Extend the life of your gears and overall drivetrain
2. Better Performance
3. Safety

You will need:
- Chain checker
- Chain tensioner
- Missing link pliers
- A chain tool
- A new missing link
- A new chain
- A rag
- Chain lube
- A brush

First thing we need to do is get the chain down to the smallest gear on the freewheel (rear) and the largest wheel on the chain wheel (front).

Now check the chain to see if it is stretched. Use an easy chain checker for this. Put it into a roller and if it drops through, that means the chain is stretched. Check another spot to make sure. To perform a more detailed check, use a digital chain checker. (For digital chain checker: Squeeze the arms together, press zero to calibrate. While you’re still squeezing the arms together, drop it into a roller and carefully let go. We can see that his chain is almost at 0.8 so it needs to be replaced.) This is also a good time to check your gear teeth for damage and to check your rear cassette for wear.

Find your missing link. Use a chain tensioner to get some slack in your chain so it’s easier to work with. Put it into a roller on either side and now this slack makes it easier to separate the chain. Using missing link opener pliers, put them into the chain, hold the side of the chain and squeeze. With the ML open, release your chain tensioner and take your old chain off of your drivetrain.

Measure your old chain to your new chain to see if you need to adjust the length of the new chain. If the new chain is longer than the old chain, you will need to cut off some of the links with a chain tool. For the best accuracy, you can count the number of links in your old chain and then use this to measure your new chain and cut where necessary.

(KMC Chain tool: First, clear the handle from the cradle. Put your new chain on the cradle, advance the handle until you feel a little pressure on the pin, and then apply a lot of pressure to force the pin out. Now that the pin is out, release the handle, and carefully take the chain out. Apply a little pressure on opposite sides of the chain and pull the chain apart. Now that the chain is cut, clean the end of the rollers to clear out any debris. Take the small end of your cloth and put it through the roller and clean the inside. After cleaning, add a little oil to the open pin holes for lubrication.)

To put the new chain on your bike, take your derailleur and pull it up backwards. This way, you can drop your chain straight in. Get some slack on the left side and loop it around your derailleur jockey and the smallest cog of your freewheel. Slowly pull it towards your front chainwheel and around the largest gear. Leave a little bit of slack so there is enough room to pull the chain together.

Always use a new ML on your new chain for safety. Put the ML into opposite sides of the chain, apply pressure to each side and pull the chain together. Don’t close the ML because you can do that with pliers for safety and convenience. Using the ML closer pliers, put it into opposite sides of the ML, hold the ML, and squeeze. You’ll hear a “click” to indicate that it’s closed. Give the ML a good shake to make sure it’s properly closed. Another way to close the ML is to apply pedal power. Hold the rear wheel and apply pressure to the pedal. Listen for the “click” and then test for safety.