How Tamiflu works against the flu virus

As we learned in class, viruses cannot reproduce on their own. To reproduce, a virus must latch onto a living cell inside some organism. It then inserts its genetic material into that "host" cell, and takes over the cell's reproductive "machinery." The virus makes copies of itself - maybe hundreds. (Sooner or later, this kills the infected cell - causing disease.) All of those new viruses break out of the host cell and start the process over, attacking other cells.

But what if the new viruses can't get out?  
**This is where Tamiflu comes in.**

Tamiflu traps the new viruses inside the host cell. Eventually, the viruses die. Therefore you might get a slight temperature or some body aches, but taken soon enough, it inhibits the virus from getting OUT of the original host cell/s and infecting other cells. (Ain't science great!)

**If you want to really get scientific:** Two proteins on the surface of the virus enable it to enter and exit the host cell. The first protein, hemagglutinin, lets the virus attach to the cell and inject genetic material inside. The second protein, neuraminidase, then opens the cell membrane to let the new viruses out. Tamiflu inhibits the work of neuraminidase; that's why you hear Tamiflu called a "neuraminidase inhibitor." Another tidbit: Hemagluttinin is the "H" and Neuraminidase is the "N" used in naming virus subtypes - like H5N1, the avian flu virus that everyone worried about a few years ago.