Guidelines for making 3D models for printing

- Should be thick enough to hold own weight
- Models should be sealed/closed surfaces
- Needs to be manifold (every edge needs to be connected to exactly two polygons)
- Try to avoid overhangs greater than 45 degrees
- Keep in mind overall scale as you're modeling (scaling an object down may make certain parts too thin)

Helpful Links

Blender
Download blender for free at http://www.blender.org
Get started with http://www.cgcookie.com/blender, click on "Blender Basics"
More tutorials and help available at http://www.blender.org/education-help/tutorials/
Learn hotkeys at http://www.blenderguru.com/blender-2-5-cheat-sheet/
Advanced tutorials at http://www.blenderguru.com/

Other Free 3D Tools
Autodesk 123D Software at http://www.123dapp.com/, under the “Apps” menu
Google Sketchup at http://google-sketchup.en.softonic.com/
Sculptris (free 3D sculpting tool – like modeling clay) at http://pixologic.com/sculptris/

Makerbot
Browse free online library of printable 3D objects at http://www.thingiverse.com/
Download MakerWare at http://www.makerbot.com/makerware/
Learn more about the MakerBot Replicator 2 at http://store.makerbot.com/replicator2
Find MakerBot Replicator 2 support at http://www.makerbot.com/support/replicator2/troubleshooting/

Other links
Eric's personal website at http://www.ecarlsen.com
“Top 15 Applications for 3D Artists” at http://cgi.tutsplus.com/articles/top-15-applications-for-3d-artists--cg-298
Shapeways site: http://www.shapeways.com