Build Rocketship A

Introduction.

The ability to construct realistic vehicles is a key skill for the 3d artist. Spacecraft, rockets and aircraft appear frequently in animated features of all lengths. Additionally, the lathe tool has many applications in the construction of rockets. Rocketship A is an old-style rocket similar to the Atlas or Gemini launch vehicles used by NASA in the early days of the U.S. space program. Constructing models of this sort in Strata 3d is not difficult.

Procedure.

To create this rocket, start by using your object oriented drawing program (like Adobe Illustrator) to create a template for the upper and lower stages. If you plan to animate a launch scene in which the lower stage detaches from the upper stage, make two separate 2d-templates. In Strata, use the lathe tool to covert the your 2d template(s) into 3d objects. Create a triangular fin and replicate as desired (once or three times). Create surface templates to apply color and lettering to your rocket. Finally, group and animate.

Assignment.

Using templates from the gart2520 Rocketship A folder, construct rocketship A. Color as desired. Common choices are white and aluminum.
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Use the lathe tool to build the rocket.

Use the Strata File Import command to bring your 2d template into a new Strata document. After importing into Strata, remove any textures imported from Illustrator. Ungroup the fin assembly from the rocket fuselage (image right). Use the lathe tool to turn the fuselage into a 3d object. Re-center the 3d object.
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Use the extrude tool to make the fins.

Use the extrude tool to turn the fin assembly into a 3d object. Use the object properties palette to set the thickness of the tail assembly to .05 inch.

The fin assembly template.

After extruding the fin assembly template becomes a 3d object.
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Position the rocket and the fins.

Place the rocket and the fin assembly at 0,0,0. Set the y-position of the rocket and the fin at 1/2 each object’s height. This will position the fins correctly at the base of the rocket. (See image at right.) Use the rotate tool with the shift key and the option key to duplicate the fin assembly at a 90 degree angle to the original fin assembly. (Image below.)
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Texture the rocket skin and add text markings.

Texture the rocket fuselage as desired. Typical colors are white or aluminum. Texture the two fin assemblies separately (these may show contrasting colors). Create new solid color textures for each solid color. Create text in Photoshop for text markings. Load the text into a new image texture. Edit and position the text.