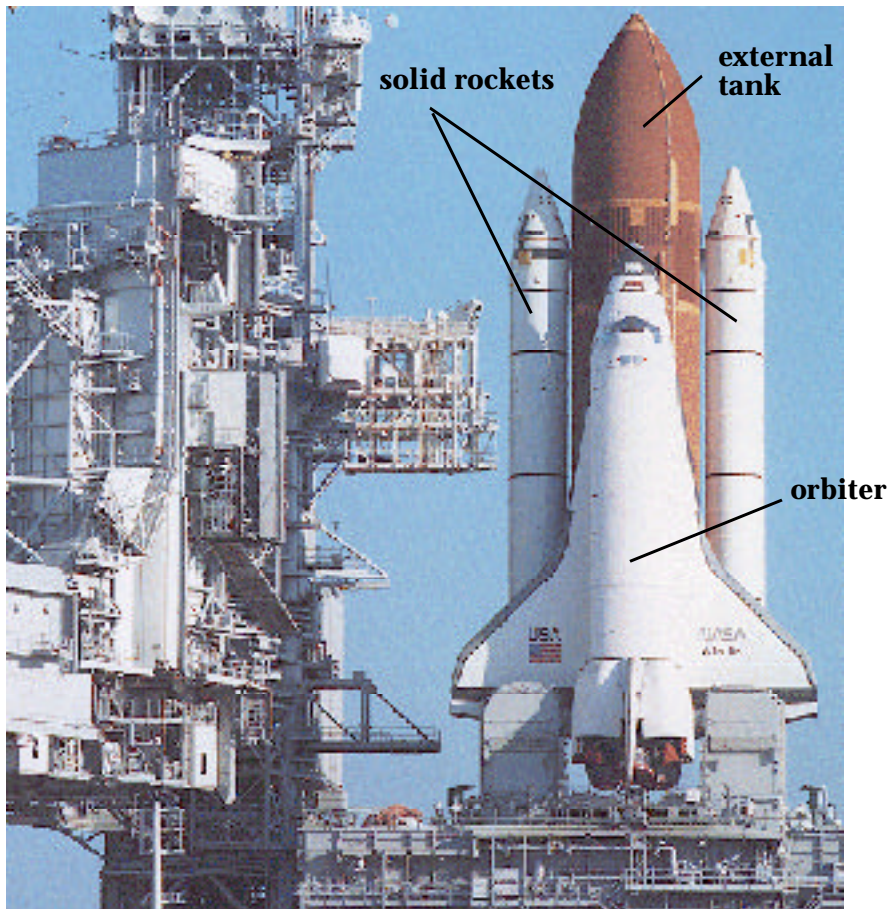


On the Launch Pad

Sitting on the launch pad, the Space Shuttle, or Shuttle Transportation System (STS), is composed of three basic parts: the external tank, the solid rocket boosters, and the orbiter.



Orbiter. The 250,000-pound orbiter is the part of the Space Shuttle that looks like an airplane. In fact, it's about the same size as a commercial airliner. During launch, the orbiter is attached to the external tank. Three main engines, located at the tail end, are ignited on the launch pad, and used during the launch. They burn fuel stored in the external tank and cannot be used once the tank is gone.



External Tank. The external tank is the biggest piece on the launch pad. It is the “backbone” of the Space Shuttle: both the orbiter and the solid rockets are attached to it. The external tank contains nothing but liquid fuel. During launch, this fuel (a combination of liquid oxygen and liquid hydrogen) is fed through big pipes into the Space Shuttle’s three main engines located on the orbiter.

Solid Rockets. The Space Shuttle has two solid rockets, one attached to each side of the external tank. The appropriately named solid rockets contain nothing but solid fuel. This fuel has the consistency and appearance of a pink pencil eraser. The solid rockets are very powerful, and provide about 80% of the Space Shuttle’s total thrust at lift-off.

