



ASSESSMENT: Aeronautics of the Space Shuttle

Directions

After reading *Aeronautics of the Space Shuttle*, answer each question below by circling the letter that corresponds to the correct answer.

- Name the vehicle that is an example of a lifting body.
 - a Boeing 747
 - a DC-9 jet
 - the orbiter
- The orbiter uses what type of wing?
 - delta wing
 - sweepback wing
 - straight wing
- Which part of the Space Shuttle is NOT reusable?
 - orbiter
 - external fuel tank
 - solid rocket booster
- Name the "space engines" used by the orbiter to enter, exit, and change orbit.
 - solid rocket booster
 - orbital maneuvering system
 - reaction control system
- Name the airplane control surface that is on the trailing edge of the orbiter's wings.
 - aileron
 - rudder
 - elevon
- Name the engine system that is used to control the orbiter's motions of roll, pitch, and yaw while it is in the upper atmosphere.
 - reaction control system (RCS)
 - orbital maneuvering system (OMS)
 - orbiter reaction system (ORS)
- What is the purpose of the S-turns during landing?
 - to reduce heat
 - to slow the orbiter's speed
 - to burn extra fuel
- The orbiter's rudder is used to do what?
 - control yaw
 - slow the orbiter at landing
 - deflect the airflow and increase drag
 - all of the above
- The orbiter lands on the runway moving at about what speed?
 - 215 mph
 - 424 mph
 - Mach 1
- One major difference between the orbiter and an airplane is found with what part?
 - elevons
 - wings
 - engines
- An elevon is a control surface that combines which two control surfaces?
 - aileron and elevator
 - elevator and rudder
 - wing and aileron
- At what speeds does the orbiter fly?
 - hypersonic
 - supersonic and subsonic
 - 732 miles per hour
 - all of the above