Task Card Activity – Space Shuttle Glider Construction

The airplane-like orbiter usually remains in Earth's orbit for up to two weeks at a time. The Space Shuttle transports International Space Station components for assembly on orbit. At the end of a Shuttle mission, the orbiter is piloted back to Earth and lands on an airstrip like an airplane.

1. Make sure you have the following materials to construct your aircraft:
    - The handout with the glider diagram
    - Scissors
    - Tape or Glue

GO TO THE NEXT TASK CARD

Space Shuttle Glider Construction

Assembly Instructions. Read carefully before assembly.

2. Cut out all parts along edges with scissors
3. Cut our V-shaped notches on fuselage to create tabs along outside edge. Fold tabs out.

GO TO THE NEXT TASK CARD

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Lesson 9/ Task Card #3

Space Shuttle Glider Construction

4. Glue or tape three Nose Weights to underside of glider nose. Use the fourth weight provided for extra trim after assembly.
5. Fold fuselage along middle line.

6. Starting at the nose, glue or tape fuselage to deck and wing assembly. Match tabs on fuselage exactly.
7. Glue or tape the bottom of the glider to the deck and wing assembly.

GO TO THE NEXT TASK CARD

Lesson 9/ Task Card #4

Space Shuttle Glider Construction

8. To clase the nose, glue or tape the two halves together using tabs provided.
9. Fold Vertical Stabilizer Assembly. Except for tabs, glue or tape together.
10. Attach Vertical Stabilizer to fuselage, matching tabs with points A and B on fuselage.
11. Launch your Space Shuttle Glider!!!

GO TO THE NEXT TASK CARD

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Lesson 9/ Task Card #5

Task Card Activity – Glider Construction

The 757 serves NASA as a second generation flying laboratory. The "flying lab" is used for aeronautical research purposes.
The twin-engine jet will provide more space for experimental hardware than its predecessor, the 737, and is equipped with digital cockpit controls and displays. It serves as a vital research tool for the Advanced Subsonic Transport program.

1. Make sure you have the following materials to construct your aircraft:
   - The handout of the diagram of your aircraft
   - Scissors
   - Tape or Glue
   - Paper clip

GO TO THE NEXT TASK CARD

Lesson 9/ Task Card #6

Glider Construction

2. Cut out all parts of your Glider.
3. Cut all dashed lines.
4. Fold the plane body in half.

GO TO THE NEXT TASK CARD

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Lesson 9/ Task Card #7

Glider Construction

5. Fold *A* inward to *B*.
6. Now fold *B* into the plane section. (This adds weight to the front of the plane.)

GO TO THE NEXT TASK CARD

Lesson 9/ Task Card #8

Glider Construction

7. Insert *C* into slot (the dashed line cut at the bottom of *B*).
8. Fold the tail sections and slide it into the slot in back of the plane until it locks into place.
9. Secure with tape so it stays in place.

GO TO THE NEXT TASK CARD

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Glider Construction

10. Bend front and back “wings” to form glider.
11. Fold *D* inward.
12. Tape the nose (at D) of the airplane and add paperclip.

Launch you Glider!!!

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