To relive Wright Brothers' first historic discovery, fold this card at the dotted lines. Glue or tape the top tab to the bottom edge to make an inner tube box.



The Wright Brothers' adventure began in the summer of 1899 with a flash of inspiration. Wilbur Wright was chatting with a customer in his Dayton, Ohio bicycle shop, idly playing with an empty inner tube box. He noticed that when he held two diagonal corners at one end of the box and the two *opposite* corners at the other end, then squeezed the corners together between his thumbs and forefingers, the surfaces of the box took on a spiral twist. He showed this curious effect to his brother Orville and in their mind's eye, they saw the top and bottom of the box as the wings of a biplane. With a few cables, they could twist the wings so the right and left sides would strike the air at different angles, rolling the aircraft right or left. From this simple idea developed a control system that is still used in every aircraft flying today.



The 1906 patent drawing for the airplane shows the same method of twisting the wings that Wilbur discovered when playing with a small box in 1899.



A flash of inspiration, then seven years of perspiration to make the dream a reality...

1899 While toying with a small box, Wilbur Wright of Dayton, Ohio envisions a way to control an airplane in flight. Wilbur and his brother Orville build a model glider and fly it as a kite to test the new control method. It works.

1900 Will and Orv build their first man-carrying glider and test it at Kitty Hawk, North Carolina. The controls work, but the glider doesn't produce enough lift to fly well.1901 The Wright brothers build a second, larger glider, but it too flies poorly. Discouraged, Will tells Orv that man won't fly for a thousand years.1902 Rather than quit, the brothers decide to find why the first two gliders failed to fly well. Using a homemade wind tunnel, they test wing shapes and build a third glider

based on their experiments. After refining their control system at Kitty Hawk, they find they can truly fly. The 1902 Wright Glider is the first controllable aircraft.
1903 The Wrights build their first powered aircraft, designing their own propellers and engine. On December 17, they make the first sustained, controlled powered flights.
1904 The Wright Brothers build a second powered aircraft and test it at Huffman Prairie, just outside of Dayton, Ohio. It flies, but just barely. One by one, they patiently identify the problems with their airplane and iron them out.

1905 Will and Orv build a third powered aircraft, using everything they have learned in seven years of hard work. The 1905 Wright Flyer III is the first practical airplane.