

Warm-Up Activity:

Definition of *compromise*:

Example of *compromise*:

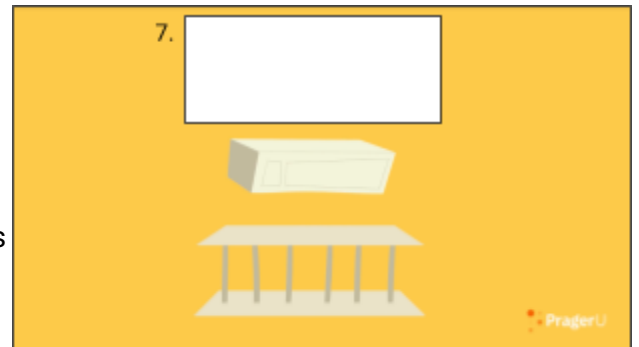
Making Predictions: Why is compromise important in teamwork?

Directions: Circle the correct answer.

1. What did the Wright brothers, Orville and Wilbur, become famous for?
 - a. Inventing and flying the first successful airplane in 1903
 - b. Inventing and driving the first successful car in 1903
 - c. Inventing and flying the first successful helicopter in 1903
2. Who did the Wright brothers credit their love for aeronautics to?
 - a. Their father, who was also an aeronautical engineer and gave them engineering books.
 - b. Their father, who often traveled for his work as a bishop and brought them back a model helicopter based on the invention of a French aeronautical pioneer.
 - c. Their grandfather, who was also a famous inventor and gave them engineering tools.
3. The Wright brothers always enjoyed working with their hands and tinkering with parts to understand how things work.
 - a. True
 - b. False
4. Before beginning their aeronautics research, what did the Wright brothers do?
 - a. They were pilots.
 - b. They were science teachers.
 - c. They had their own bicycle repair shop.



5. How did the German aviator Otto Lilienthal's fatal glider crash inspire the Wright brothers?
- They were inspired to learn more about safety while flying.
 - They were inspired by his willingness to take a risk and began conducting more test flights.
 - They were inspired by his idea of gliding as a way to control and began researching a more reliable way for pilots to control their craft.
6. What did Orville and Wilbur study to help them find a reliable way for pilots to control their craft?
- They studied how other planes flew.
 - They studied birds and how they flew.
 - They studied engineering textbooks.
7. According to your response to #6, draw a sketch in the box on the right of what the Wright brothers studied to help them figure out how to control an aircraft.



Short Response:

8. During the Wright brothers' research, they discovered "wing-warping" was key. What does this mean?
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9. Many people in aeronautics favored power over control. Did the Wright brothers agree or disagree with this? Explain.
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-
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Making Connections:

10. In the video, what advice do Orville and Wilbur give Leo and Layla on teamwork?
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11. How did Wilbur and Orville's differences make them great partners?

12. What does the Wright brothers' story teach you about the importance of compromise and teamwork? Provide a specific example of how you can apply this lesson to your own life.

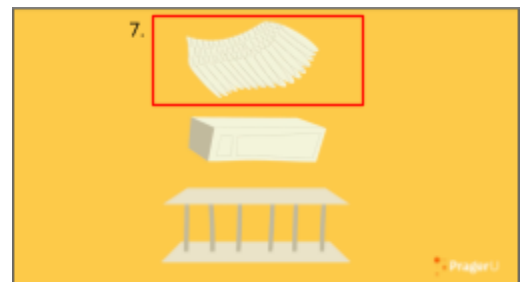
The Wright Brothers | Answer Key

Warm-Up Activity:

Check students' work for completion.

Directions: Circle the correct answer.

1. What did the Wright brothers, Orville and Wilbur, become famous for?
 - a. **Inventing and flying the first successful airplane in 1903**
 - b. Inventing and driving the first successful car in 1903
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 - c. Their grandfather, who was also a famous inventor and gave them engineering tools.
3. The Wright brothers always enjoyed working with their hands and tinkering with parts to understand how things work.
 - a. **True**
 - b. False
4. Before beginning their aeronautics research, what did the Wright brothers do?
 - a. They were pilots.
 - b. They were science teachers.
 - c. **They had their own bicycle repair shop.**
5. What did German aviator Otto Lilienthal's glider fatal crash inspire the Wright brothers to do?
 - a. They were inspired to learn more about safety while flying.
 - b. They were inspired by his willingness to take a risk and began conducting more test flights.
 - c. **They were inspired by his idea of gliding as a way to control and began researching a more reliable way for pilots to control their craft.**
6. What did Orville and Wilbur study to help them find a reliable way for pilots to control their craft?
 - a. They studied how other planes flew.
 - b. **They studied birds and how they flew.**
 - c. They studied engineering textbooks.
7. According to your response to #6, draw a sketch in the box on the right of what the Wright brothers studied to help them figure out how to control an aircraft.
Students' drawings should resemble a bird's wing.



Short Response:

8. During the Wright brothers' research, they discovered "wing-warping" was key. What does this mean?

The Wright brothers explained that while studying birds' wings, they discovered that birds change the angle of the ends of their wings to make their bodies roll right or left. They thought this would be a good way for a flying machine to turn – to "bank" or "lean" into the turn. Then, it's easier to recover when the wind tilts the machine to one side. They explained that it is like riding a bike – when you lean, you can control your movement.

9. Many people in aeronautics favored power over control. Did the Wright brothers agree or disagree with this? Explain.

The Wright brothers disagreed. They explained that many people thought powerful engines would sustain the plane, but they believed absolute control was more important. Their drooping wing design was more unstable, but it was less vulnerable to being thrown off by crosswinds.

10. In the video, what advice do Orville and Wilbur give Leo and Layla on teamwork?

The Wright brothers explain to Leo and Layla that teamwork is never easy. Although the brothers disagreed often, they recognized that they would always accomplish more together than separately. Everyone has strengths and weaknesses, and the beauty of teamwork is that different strengths can complement one another, and weaknesses can be minimized.

11. How did Wilbur and Orville's differences make them great partners?

Sample answer: Wilbur was a perfectionist—his focus could get too narrow sometimes, and Orville reminded him to look at the bigger picture and helped him see things from a new angle. On the other hand, Wilbur reigned in Orville when he got too carried away with big ideas. Wilbur was practical and helped Orville stay focused. Their differences complemented each other and made them a stronger team.

12. What does the Wright brothers' story teach you about the importance of compromise and teamwork? Provide a specific example of how you can apply this lesson to your own life.

Sample answer: The Wright brothers' story teaches me that compromise is essential to effective teamwork. To work with someone on a team, it's important to recognize each other's strengths and weaknesses, balance each other out, and meet in the middle. My brother and I always argue about our positions when we play soccer together. Since he is good at scoring goals and I am good at defending, we should divide the positions this way in the future to make our team even stronger.