

## The Big Question

### Should supersonic passenger flights come back?

*An activity of "Supersonic flight: Can this old tech take off again?"*

If supersonic planes make a comeback, you could fly at twice the speed of sound, and go from Singapore to Tokyo in three hours — half the usual flight time! Why did supersonic flights disappear, and should they be revived? Read "Supersonic flight: Can this old tech take off again?" (page 22-23, *What's Up* April 2024).

1. Form Home groups with at least four members per group. Within your Home group, assign members to be Experts A, B, C, and D. Experts of the same category leave their Home groups, and get together to work on their corresponding worksheet. For example, all "A Experts" meet to complete Worksheet A, while "B Experts" work on Worksheet B, and so on.

#### Expert Worksheet A: The advantages of the Concorde

Watch "This plane could cross the Atlantic in 3.5 hours. Why did it fail?"

➤ [https://youtu.be/a\\_wuykzffzE?si=QMDdMQaxhqRXbltA](https://youtu.be/a_wuykzffzE?si=QMDdMQaxhqRXbltA) (Vox, 19 Jul 2016)

Use the *What's Up* story and video to respond to these two prompts:

- List the characteristics of the Concorde.

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- What did passengers and airlines like about it?

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#### Expert Worksheet B: The disadvantages of the Concorde

Watch the same video as Expert A (see above). Use the *What's Up* story and video to respond to these two prompts:

- What were the main concerns about the Concorde?

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- How did airlines lose money in their operation of the Concorde?

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### Expert Worksheet C: All about the Airbus A350

Watch “*Inside The \$350 Million Airbus A350-900*” Aviation Base. 9 Oct 2023

➤ <https://www.youtube.com/watch?v=fTiQsBz7xg&t=336s>

Use the *What’s Up* story and the video to respond to these two prompts:

- List the characteristics of the A350.

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- What advantages does it have over the Concorde?

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### Expert Worksheet D: Sonic Boom

Watch these two videos:

“*The sonic boom problem — Katerina Kaouri*” (TED-Ed. 10 Feb 2015)

➤ <https://www.youtube.com/watch?v=J04VHM69oI>

“*How NASA’s X-59 may change the future of high-speed flight*” (Nasa Video. 9 Jan 2024)

➤ [https://www.youtube.com/watch?v=y0j\\_yQrZS4E](https://www.youtube.com/watch?v=y0j_yQrZS4E)

Use the *What’s Up* story and the videos to respond to these two prompts:

- How does the sonic boom affect people and the environment?

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- How does NASA plan to reduce the loudness of the sonic boom reaching the ground?

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2. Upon completion of the worksheets, all the Experts return to their Home groups. All Home groups will now have their A, B, C and D Experts back with them. Every Home group then discusses the big question, with contributions from each type of expert.

**THE BIG QUESTION: Should supersonic passenger flights make a comeback?**

3. Finally, each group presents its conclusion to the class.