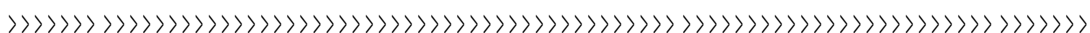


Aerodynamics ~ STEAM Education from Queensland



Warm up!

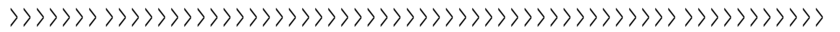


Check the important words and phrases used in the session and what they mean.
You can also use the read-aloud voice on the website to check your pronunciation.

| ✓ Words & Phrases | 訳 |
|---|--------------|
| <input type="checkbox"/> 1. inquiry | 調査、研究 |
| <input type="checkbox"/> 2. gravity | 重力、引力 |
| <input type="checkbox"/> 3. pull force | 引く力 |
| <input type="checkbox"/> 4. push force | 押す力 |
| <input type="checkbox"/> 5. investigate | ～を調査する |
| <input type="checkbox"/> 6. lift | 揚力 |
| <input type="checkbox"/> 7. weight | 重力 |
| <input type="checkbox"/> 8. thrust | 推力 |
| <input type="checkbox"/> 9. drag | 抗力 |
| <input type="checkbox"/> 10. air particle | 大気中微粒子 |
| <input type="checkbox"/> 11. balloon | 風船 |
| <input type="checkbox"/> 12. blade | (プロペラなどの) 羽根 |
| <input type="checkbox"/> 13. paper clip | クリップ、紙ばさみ |
| <input type="checkbox"/> 14. diagram | 図表 |
| <input type="checkbox"/> 15. spin | 回転 |
| <input type="checkbox"/> 16. oppose | ～に対抗する |
| <input type="checkbox"/> 17. reduce | ～を減らす |
| <input type="checkbox"/> 18. increase | ～を増やす |
| <input type="checkbox"/> 19. altitude | 高度 |
| <input type="checkbox"/> 20. flap | フラップ、下げ翼 |



Let's join the session!



The following questions are based on the contents of the session. Watch the session and answer each question.

[1] Explain why things fall.

[2] Complete these sentences by writing appropriate words or phrases in the underlined spaces.

1. Our helicopter had a _____ fall because _____
_____ .

2. Our helicopter had a _____ spin. Fast spin is good because it creates extra
_____ that gives _____ to our helicopter.

[3] Explain why the helicopter falls slowly.

[4] Complete these sentences by writing appropriate words or phrases in the underlined spaces.

1. When we walked fast the tumbling _____ altitude because _____
_____.

2. When we walked slowly the tumbling _____ altitude because _____
_____.

[5] Explain how to make something that falls as slow as possible.

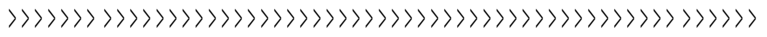
Blank space for explanation.

[6] Looking at this session, what kind of attitude do you think is important for scientific research?

Blank space for answer.



Wrap up the session!



[1] The following is a summary of the session. Write down the appropriate words in the blanks in the passage. You may use the same words for several blanks.

Everything on the () which has () falls because of (). Gravity () things towards the earth. However, we can make things fall slowly by using () (). Paper helicopters with () fall (), because the () catch many air particles. The air particles cause the blades to () and () the helicopter. In the experiment with the (), the () can () in the air for more than ten seconds. As we walk with a (), the () is hit by air particles and can stay at a high () for a long time.

[2] Write down what you learned in today's session.

