



Investigating Air Resistance **Gold Answers**

Results Table

Length of Parachute Side (cm)	Time Taken to Drop (s)			
	Repeat 1	Repeat 2	Repeat 3	Mean

Conclusion

As the length of the parachute side decreased, the time taken for the parachute to fall decreased. When the length of the parachute side was _____ the time taken to fall was _____, and when the length of the side was _____ the time taken to fall was _____. This shows a decrease of _____. This is because, as the surface area of the parachute increases, more air particles will collide with the parachute. This means the force of air resistance is higher which slows down the parachute as it falls. It therefore takes longer to hit the ground.

Evaluation

Student responses to the evaluation will vary depending on their investigation.

Possible control variables: The height the parachute was dropped from. The material the parachute is made from. The object being dropped. Where the object/parachute was held as it was dropped. When the person started timing.

Possible discussion points: If results were spread out across all three measurements then they may discuss repeating the investigation more times.

Whether the person timing started by sight or had to listen out for a countdown as well. The impact of their reaction time on results. They could improve this by dropping from a higher height or using light gates to record the drop.

Whether or not the parachute opened fully or twisted during the drop. A way they could prevent this from happening. This could be how it's held or a change in material.