

INVESTIGATION QUESTION

How significant is the opposable thumb to human and primate survival, and what does this tell us about primate evolution?

HYPOTHESIS

Hint: try writing it as "If ____, then ____, because ____."

MATERIALS

small objects to pick up, timer or stopwatch, paper and pencil

Dexterity Test Results

Trial	Condition	Objects Picked Up Per Minute	Notes on Difficulty
1 Normal (with thumbs)			
2 No thumbs (folded in)			
3 Two fingers only			
4 One hand only			

ANALYSIS

Calculate the percentage decrease in effectiveness when thumbs were removed. What specific tasks became most difficult?

CONCLUSION

Beyond picking up objects, list five specific activities in your daily life that depend on opposable thumbs. What does this tell you about how important this trait was to human evolution?

CONNECT IT

Jane Goodall discovered chimps making and using tools in 1960. Look up what she observed and how it changed the scientific understanding of what makes humans unique.

THINK FURTHER

Primates share many traits including forward-facing eyes, grasping hands, and relatively large brains. These traits evolved in tree-living ancestors. How would life in trees select for each of these traits?

ADDITIONAL NOTES