

Wingspan Investigation

This experiment helps us understand body proportions and how they compare to animal wingspan.

Hypothesis: Most people's arm span is equal to their height.

Objective: To determine if the height ratio holds for most people by measuring and graphing class data.

Time Limit: 30-40 minutes

Instructions:

STEP 1: Stand straight against a wall. Measure from the top of your head to your feet—record in centimeters.

STEP 2: Stretch your arms wide. Measure from your left fingertip to your right fingertip—record in centimeters.

STEP 3: Record measurements for the entire class and create a data table.

STEP 4: Graph Your Data:

X-axis: Height

Y-axis: Arm Span

Plot data points and draw a best-fit line to check for a positive correlation.

Materials:

**Measuring tape
(in centimeters)**

Pen

Date table

Calculator

Graph paper

Observing Patterns and Comparing to Animals

Many people have an arm span very close to their height, but this is not always the case. Some people have a positive ape index, meaning their arm span is longer than their height, while others have a negative ape index (shorter arm span).



Wingspan Extensions

- Measure Your Family! Do they follow the pattern?
- Compare Athletes! Research NBA players and MMA fighters to see how their wingspan helps them in sports.
- Test Other Body Ratios! Measure the length of your forearm compared to your hand size.

WINGSPAN INVESTIGATION DATA

Participant Name

Height (cm)

Arm Span (cm)

[illegible]

WINGSPAN DATA GRAPH

