



Why do our skeletons have so many bones?

DISCUSS (1 of 2): How are bat wings similar to human hands? How are they different?

Similarities:

- Both have 5 fingers with 2-3 bones each.
- Both have lots of little bones connecting the hand and arm bones.
- Both have forearms with 2 bones and upper arms with 1 bone.

Differences:

- Bats have shorter thumbs and the thumb bones come out of the skin as claws. Humans have fingers of more similar lengths.
- Bats have very long finger bones – some of their fingers are longer than their arms! Humans have much longer arms than fingers.
- Bats' finger bones are all connected with skin. Humans' finger bones have very little skin ("webbing") between them.
- Bats' bones are smaller and lighter than humans' bones.

DISCUSS (2 of 2): Thinking about how bats use their wings and how humans use their hands, can you explain the differences in their bones?

Bats have long finger bones connected by a thin skin covering, which creates a wing for them to fly. Their small, lightweight bones also help them fly.

Humans have smaller fingers and longer arms, so they can reach and grasp things. They walk, rather than fly, so their bones are stronger and thicker.