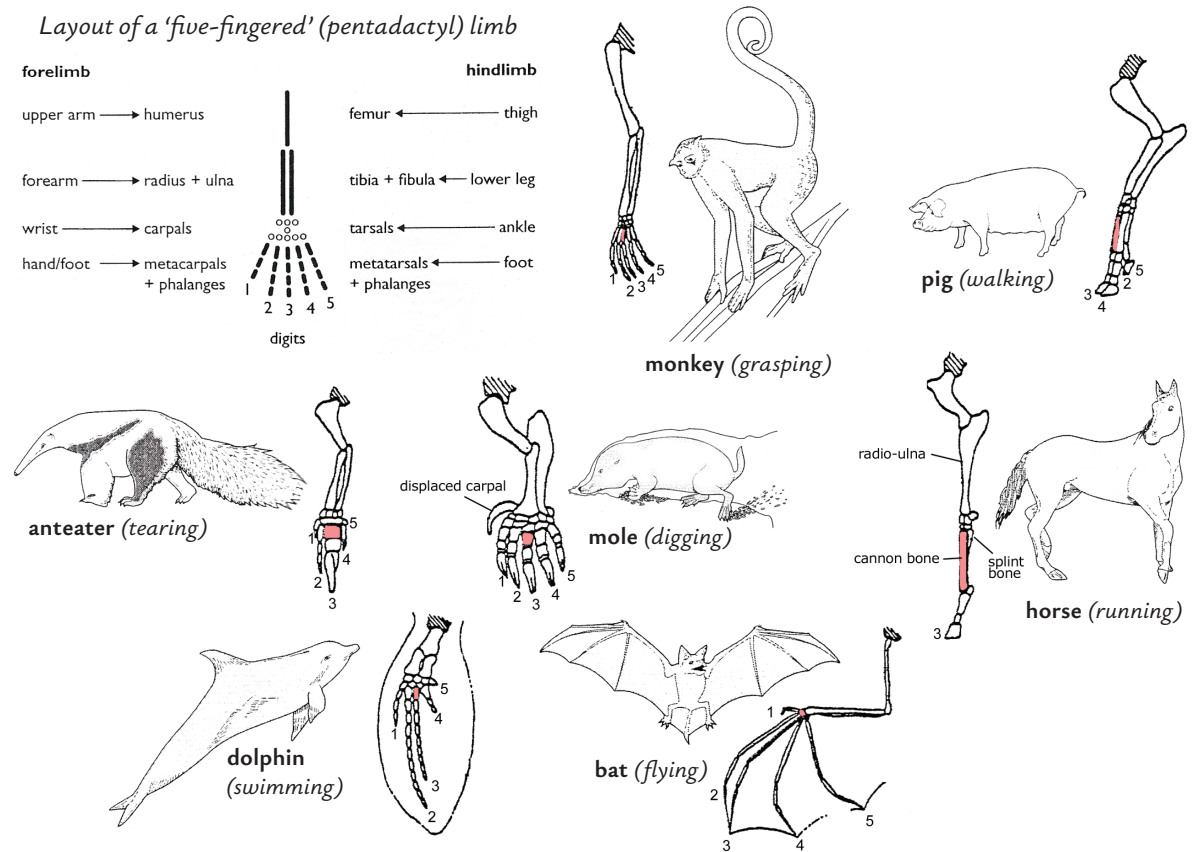


Modular Design in Vertebrates

Vertebrates seem to be designed in a “modular” fashion. All vertebrates have a similar arrangement of internal organs, but the various subgroups have unique features that design them for different ecological roles.

The pentadactyl (five-fingered) limb is a design shared by most terrestrial vertebrates. This design is modified for various methods of locomotion in different groups of vertebrates.

This principle can be compared with modular building construction in which similar components are modified to create buildings for different purposes. A design that can be adapted for a variety of applications shows good engineering.



Pentadactyl pattern of vertebrate limbs

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Image elements have been rearranged and the caption has been modified.

Type of Organism	Shared Feature	Unique Feature
Pigeon	Vertebrate Limb Pattern	Respiratory System
Cow	Vertebrate Limb Pattern	Ruminant Stomach
Turtle	Vertebrate Limb Pattern	Limbs Attach Inside Ribcage
Fish	Vertebrate Limb Pattern	Swim Bladder