

ACTIVITY: Evidence For Evolution

BACKGROUND: Much evidence has been found to indicate that living things have evolved or changed gradually during their natural history. The study of fossils as well as work in embryology, biochemistry, and comparative anatomy provides evidence for evolution.

OBJECTIVES: In this lab you will learn about homologous, analogous, and vestigial structures and their significance in evolutionary theory.

MATERIALS: Colored pencils and worksheet.

PROCEDURES AND OBSERVATIONS:

PART I. HOMOLOGOUS STRUCTURES (definition): _____

1) Carefully examine the drawings of the bones shown in Figure 1 on the next page. Look for similarities among the various animals.

A) Color each part of the human arm a different color. (All bones of the wrist should be a single color; the bone groups of the hand should be a different single color, ETC.) Then color the corresponding bone in each of the other animals the same color as the human bone.

B) Describe the function of each set of bones below (*based on the arrangement of bones, for what purpose is the shown appendage best suited?*)

ANIMAL	FUNCTION
HUMAN	
WHALE	
CAT	
BAT	
BIRD	
CROCODILE	

C) Are the bones arranged in a similar way in each animal? _____