

A. ANIMAL GROUPS (MACC APP)

MOLLUSCA

- Muscular foot and mantle
- Shell (usually) made of calcium carbonate
- Unsegmented body
- Mouth and anus



ARTHROPODA

- Bilateral symmetry
- Exoskeleton
- Segmented body
- Jointed legs



CHORDATA

- Notochord
- Dorsal nerve cord
- Pharyngeal gill slits
- Post-anal tail



CNIDARIA

- Radial symmetry
- Tentacles
- Stinging cells
- Mouth but no anus



ANNELIDA

- Bilateral symmetry
- Bristles
- Segmented body
- Mouth and anus



PLATYHELMINTHS

- Bilateral symmetry
- Flat bodies
- Unsegmented body
- Mouth but no anus



PORIFERA

- No (clear) symmetry
- Attach to surfaces
- Pores (holes) through body
- No mouth or anus



B. VERTEBRATE GROUPS (MR. FAB)

MAMMALS

- Hairs growing from the skin
- Lungs with alveoli
- Give birth to live young
- Mammary glands secrete milk
- Teeth of different types



REPTILES

- Dry, scaly impermeable skin
- Lungs with extensive folding
- Internal fertilization
- Eggs with soft shells
- One type of teeth



FISH (BONY RAY-FINNED)

- Scales grow from skin
- Gills with one gill slit
- Fins supported by rays
- External fertilization
- Swim bladder for buoyancy



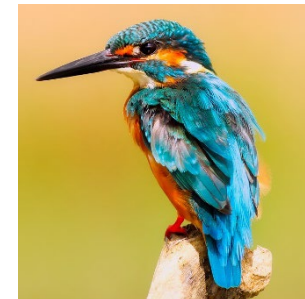
AMPHIBIANS

- Soft, moist permeable skin
- Lungs with small internal folds
- External fertilization
- Protective gel around eggs
- Larval/tadpole stage lives in water







BIRDS

- Feathers grow from skin
- Lungs with parabronchial tubes
- Wings instead of front legs
- Eggs with hard shells
- Beak but no teeth



C. PLANT GROUPS

PLANT PHYLA	VASCULAR TISSUE (XYLEM/PHLOEM)?	ROOTS	STEMS	LEAVES	REPRODUCTIVE STRUCTURES
BRYOPHYTES (MOSESSES) 	NO	NO But have rhizoids, which are similar to root hairs	SIMPLE	SIMPLE	SPORES , produced in a CAPSULE . The capsule develops at the end of the stalk.
FILICINOPHYTES (FERNS) 	YES	YES	SHORT, NON-WOODY	CURLED UP AND OFTEN DIVIDED INTO PAIRS OF LEAFLETS (PINNATE)	SPORES , produced in SPORANGIA , usually on the bottom of leaves.
CONIFEROPHYTES (CONIFERS) 	YES	YES	WOODY	NARROW WITH A THICK WAXY CUTICLE	SEEDS , which develop from OVULES on the surface of FEMALE CONES . Male cones produce pollen.
ANGIOSPERMOPHYTES (FLOWERING PLANTS) 	YES	YES (Usually)	WOODY For shrubs and trees	YES (Usually)	SEEDS , which develop from OVULES inside OVARIES . Fruits develop from ovaries.

