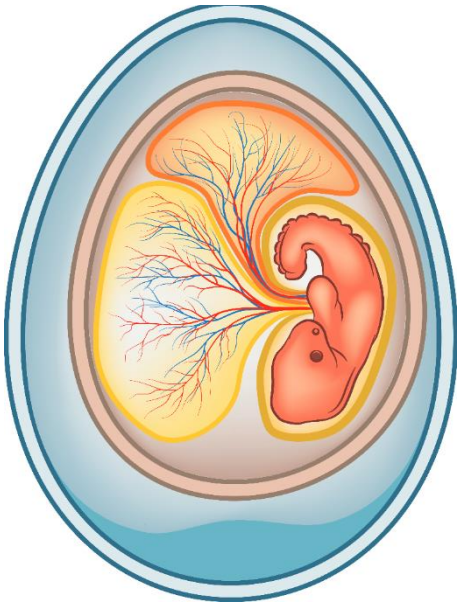
CONCEPT: AMNIOTES

● ***Amniotes*** – tetrapods named for their specialized eggs that include reptiles, birds, and mammals

□ ***Amniotic egg*** – water-tight eggs that contain a series of membranes

- ***Chorion*** – outermost membrane that lies beneath shell
- ***Amnion*** – fluid-filled cavity that encases embryo
- ***Yolk sac*** – provides food for the embryo via blood vessels connected to the gut
- ***Allantois*** – surrounds the cavity into which waste products are excreted
- ***Albumin*** – watery, protein-rich solution that cushions embryo, and provides nutrients

EXAMPLE:



● ***Reptiles*** – ectothermic tetrapods covered scales made of keratin that help keep prevent water loss

□ Fertilization occurs internally prior to eggshell secretion

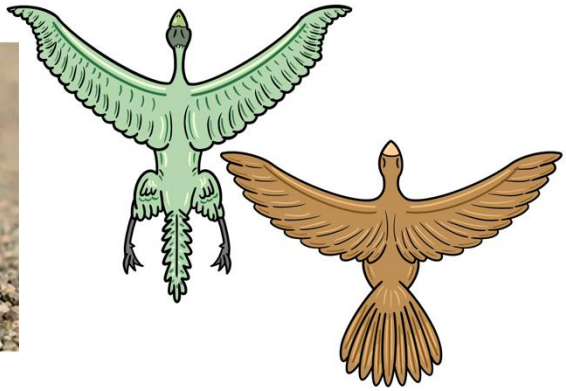
EXAMPLE:

CONCEPT: AMNIOTES

- Birds – endothermic vertebrates that have feathers, beaks, and lightweight skeletons
    - □ Birds are part of the monophyletic group dinosaurs, that are part of the monophyletic group reptiles

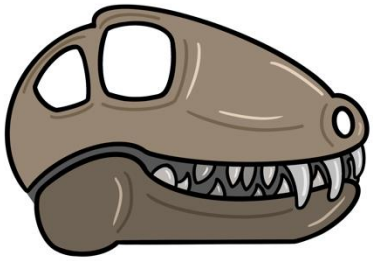
EXAMPLE:

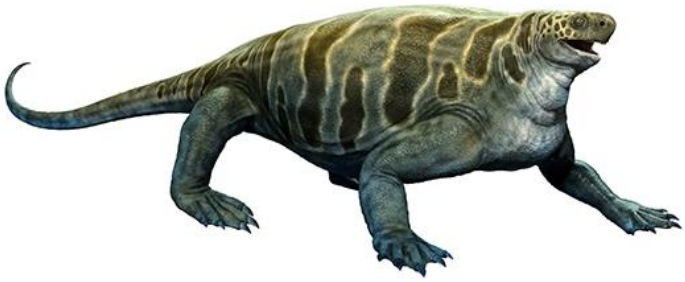
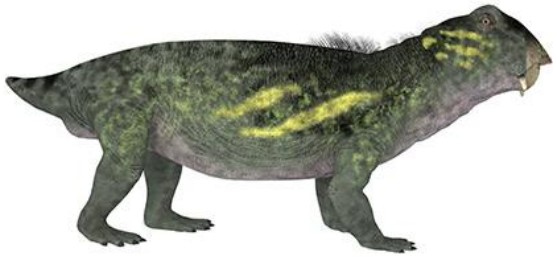




- ***Synapsids*** – group of amniotes that includes mammals, distinct from other amniotes due to features of the skull
- Sauropsids – group of amniotes that includes reptiles and birds

EXAMPLE:

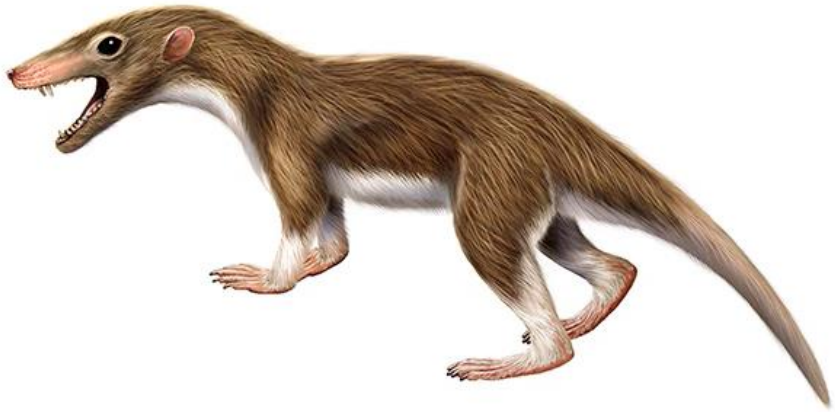


CONCEPT: AMNIOTES

● ***Mammals*** – endothermic amniotes that have mammary glands, hair, three middle-ear bones, and a neocortex

EXAMPLE:



□ ***Mammary gland*** – gland that produces milk to feed offspring

EXAMPLE:

● ***Monotremes*** – egg-laying mammals that do not give birth to live offspring

EXAMPLE:

CONCEPT: AMNIOTES

● ***Marsupials*** – birth underdeveloped offspring that remain in a distinctive pouch containing the mammary-gland nipple

EXAMPLE:

● ***Placental mammals*** (***eutherians***) – mammals that give birth to live, developed offspring after long gestation period

□ ***Placenta*** – organ that connects developing fetus to uterine wall, allowing for nutrient, waste, and gas exchange

EXAMPLE: