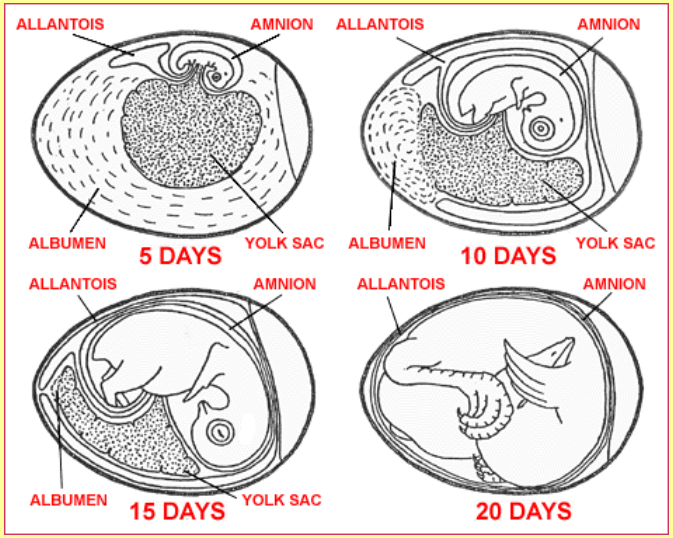
Types of Reproduction



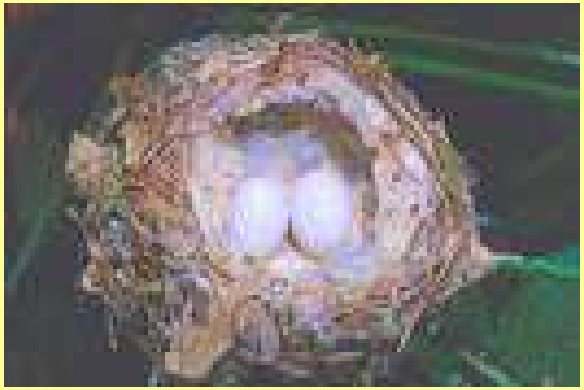
Slide show by Kelly Riedell/Brookings Biology

Ways offspring enter world

OVIPARITY- Reproductive tract encloses egg in tough protective shell

Eggs deposited outside body to hatch

EX: Reptiles & birds & mammals (monotremes)



Ways offspring enter world

VIVIPARITY-

No shell around egg

Eggs retained in body

Nourished by mother through placenta

Offspring are born alive

Ex: mammals & some reptiles

Ways offspring enter world

OVOVIVIPARITY-

Eggs laid shortly before hatching or hatch inside female

Nourishment inside mom comes from egg yolk not mother

Ex: Some reptiles (snakes)

	OVI PARITY	OVOVIVI PARITY	VIVI PARITY
SHELL? NO SHELL?	**SHELL**	**SHELL**	**NO SHELL**
Embryo grows?	**OUTSIDE**	**INSIDE**	**INSIDE**
Food comes From?	**EGG**	**EGG**	**MOTHER**
Seen in?	**Birds, Reptiles, Few mammals**	**Reptiles**	**Mammals, few reptiles**

Ectothermic

- **Body heat comes from surrounding environment**
- **Slow metabolism/low activity in cold places**
- **“cold-blooded”**
- **EX: Fish, amphibians, reptiles**

ECTOTHERMIC

ADVANTAGES:

Slow metabolism means you can survive on less food than same size endotherm

DISADVANTAGES:

Can’t keep up max activity level for long

Hard to live in cold places

Endothermic

- **Create own body heat**
- **FAST metabolism allows for high activity and ability to live in variety of environments**
- **“warm-blooded”**
- **EX: Birds, Mammals**

ENDOTHERMIC

ADVANTAGES:

Able to live in wide range of environments

Sustained activity for long periods of time

WHAT'S  IN REPTILES?

Internal fertilization-

increases chances of sperm finding egg

Amniotic eggs-

can lay eggs on land now; better protection

Partial septum-

better separation on high/low oxygen blood

WHAT'S  IN REPTILES?

Other kinds of reproduction- (OVOVIVIPARITY; VIVIPARITY)

increases chances for offspring survival

Control over Pulmonary circulation

can shift blood away from lungs to body when needed

Dry, scaly skin

better able to live on land

WHAT'S  IN REPTILES?

Nitrogen waste = uric acid

less toxic;

conserves water (need less to dilute)

Bigger cerebrum-

"smarter"; more complex behaviors

Sex depends on temperature of eggs-

can change sex based on population needs