**Heart—Reptile (croc)**

- Atrium (l & r)
- Ventricle (l & r)
- Conus arteriosus
- Pulmonary
- Aortic
- Sinus venosus
- Sinoatrial node (SA) (pacemaker)

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**Diving Mammal**

- Bradycardia
- Lungs collapsed
- Microcirculation

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**Mammal Heart**

- 2 Mammals
  - Atrium (l & r)
  - Ventricle (l & r)
- Conus arteriosus
  - Pulmonary
  - Aortic
- Sinus venosus
  - Sinoatrial node (SA) (pacemaker)

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**Mammal**

1. Placental circulation
2. Lungs expand
3. Ductus arteriosus > ligamentum arteriosum
4. Left atrium closure foramen ovale
5. Umbilical arteries > umbilical ligaments
6. Umbilical vein > ligamentum teres
7. Ductus venosus > ligamentum venosum

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**Lymphatic System**

1. Lymphatic Vessels
2. Lymphatic tissue
Lymphatic Vessels
- one-way valves
- motive force

Lymphatic System
- Lymphatic vessels
- accessory venous system
- absorption of fats (lacteals)
- Lymphatic tissue
  - lymphocyte (WBC) production
  - filter
  - antibodies

Lymphatic tissue
1) white blood cells and connective tissue
2) anywhere
3) lymph nodes