SBI3U	Heart Rate & Blood Pressure
Animals: Structure & Function	

What is Heart Rate?

-the rate at which the heart beats

How to measure Heart Rate:

-pulse can be found in: carotid (neck), radial (wrist), brachial (inside elbow)

Brachial	Carotid	Radial
Usually only used for infants, requires pushing the bicep muscle out of the way for adults.	To find your carotid pulse, place your fingers at the top of your neck, just under your jaw at about the mid-point between your earlobe and chin.	Place your index and middle fingers together on the opposite wrist, about 1/2 inch on the inside of the joint, in line with the index finger.

- never use your thumb!
- while looking at the clock, count the beats for 10 seconds
- multiply by 6 and record your results

What is Blood Pressure?

- -the force exerted by blood on blood vessel walls
- -measured using a sphygmomanometer in units of mmHg, although most devices now don't contain mercury
- -higher in the arteries, lower in the veins
- -contains two measurements: systolic and diastolic

	Systolic	Diastolic
Measuring	Peak pressure in arteries	Minimum pressure in arteries
Measured when	Ventricle contractions	Ventricles filled with blood

How to measure Blood Pressure:

- -the auscultatory method uses a stethoscope and a sphygmomanometer
- -cuff of appropriate size is fitted smoothly and snugly above the elbow
- -line up arrows where you feel the pulse (indicating the brachial artery)
- -the stethoscope is placed on the brachial artery
- -tighten the valve until tight
- -cuff is inflated by squeezing repeatedly until 180 is reached
- -loosen the valve slowly and listen for the first sound you hear (systolic)
- -continue loosening until the last sound you hear (diastolic)
- -record your results as systolic/diastolic (ie 120/80, pronounced 120 over 80)