Lesson One: Introduction

Give ___ functions of a cat’s hair (fur)
---insulation (against heat and cold)
---protection (against insect bites, stings, thorns, etc.)
---defense (raises hair to look larger when threatened)

When and why does a cat raise its hair?
---when it is frightened or scared; because it appears larger and more ferocious to its attacker

Why is it important to be aware of the condition of a cat’s coat?
---Excessive shedding is a sign of possible disease, poor diet, parasites or overheating.

What do you call the two layers of cat’s skin?
---epidermis and dermis

What is the epidermis and dermis?
---the two layers of cat’s skin

What is the outer layer of the skin?
---epidermis

What is epidermis?
---the outer layer of the skin

What is the inner layer of the skin?
---dermis

What is dermis?
---the inner layer of the skin

What is located in the cat’s skin and the pads of the feet?
---sweat glands

Where are sweat glands located?
---skin, and pads of feet

What is the purpose of sweat glands?
---helps regulate body temperature

What do we call the glands connected to hair follicles?
---sebaceous glands

What are sebaceous glands?
---glands in the skin connected to hair follicles
Lesson One Continued: Introduction

What do we call the substance secreted by sebaceous glands?
---sebum

What is sebum?
---the substance secreted by the sebaceous glands

What does sebum do?
---coats the hairs making them glossy and protecting the fur

What does regenerate mean?
---to regrow

What does impermeable mean?
---allows nothing to pass through

Because a cat’s skin is not impermeable, what could happen?
---Oils and medicines could be absorbed through the skin. This could be fatal if the substance is toxic.

Describe the qualities of a healthy cat’s skin.
---elastic, pliable, regenerates rapidly

How many bones does a cat have?
---230

How many ribs does a cat have?
---thirteen

What are the five main parts of the skeleton?
---skull
---ribs
---spinal column
---forelegs
---hind legs

What are the two main functions of the skeleton?
---framework
---protect vital organs

What is the spinal column composed of?
---atlas
---axis
---thoracic
---cervical
---lumbar
---coccygeal (all vertebrae)

Name ___ sections of the vertebrae.
---cervical
---thoracic
---lumbar
---coccygeal

How many coccygeal vertebrae do most cats have?
---eighteen to twenty three
Lesson One Continued: Introduction

What are the two vertebrae at the top of the spinal column called?
---atlas and axis

What is the part of the spinal column to which the skull is attached?
---atlas

Name ____ of the bones that make up the foreleg.
---scapula (shoulder blade)  ---humerus
---radius  ---ulna
---carpus (wrist)  ---metacarpus---digits

Name ____ of the bones that make up the hind leg.
---femur  ---tibia
---fibula  ---tarsus (hock)
---metatarsus  ---digits

Name ____ activities a cat's muscles are designed to do.
---walking  ---running
---leaping  ---twisting

What is the name of the nerves that are concerned with the sense of smell?
---olfactory nerves

What is the name of the nerves in the nose?
---olfactory nerves

The olfactory nerves pertain to which sense?
---smell

How do cats react to the smell of catnip?
---Some do not react at all, while many are aroused, some quietly and others by rolling, purring, or growling.

What are the rough protrusions on the tongue called?
---papillae

What are papillae?
---rasp like protrusions on the tongue

What are the two functions of the papillae?
---clean its coat
---scrape all meat off bones

What is the function of taste buds?
---to react to chemical stimuli to produce sensations of acidity, bitterness, sweetness, and saltiness
Lesson Two: Vision, Hearing, Respiratory System

What is the name of the iridescent cells at the back of a cat’s eyeball?  
---tapetum lucidum

What is the tapetum lucidum?  
---a layer of iridescent cells at the back of a cat’s eyeball

What is the function of the tapetum lucidum?  
---The iridescent cells reflect light, increasing the cat’s ability to see at night.

What is another expression for tapetum lucidum?  
---eye shine

What is the transparent covering of the eye called?  
---cornea

What is the cornea?  
---the transparent covering of the eye

What is the sclera?  
---a ring of white, shiny tissue around the cornea

What is the white, shiny tissue around the cornea called?  
---the sclera

What is the third eyelid?  
---nictitating membrane

What is the nictitating membrane?  
---third eyelid

What are the two purposes of the nictitating membrane?  
---protection (when fighting or traveling through brush)  
---indicates illness or internal parasites

What is the hole in the center of the eye called?  
---pupil

What is the pupil?  
---a hole in the center of the eye that expands or contracts to let in the correct amount of light

What is the colored part of the eye called?  
---iris

What is the iris?  
---the colored part of the eye surrounding the pupil
Lesson Two: Vision, Hearing, Respiratory System

What is the purpose of the iris?
---it acts as a shutter to regulate the size of the pupil

What is located behind the pupil, in the eye?
---lens

Where is the lens located?
---behind the pupil, in the eye

What is the purpose of the lens?
---it focuses images on the back of the eyeball

What is in the back of the eye?
---retina

Where is the retina located?
---in the back of the eye

What does the retina do?
---receives light and images and transmits to the brain

What part of the eye receives and transmits images?
---the retina

How do images travel from the eye to the brain?
---on the optic nerve

What does the optic nerve do?
---transmits images from the retina to the brain

Name ___ parts of the eye
---cornea     ---iris
---sclera     ---lens
---nictitating membrane   ---retina
---pupil     --optic nerve

What is the only hearing mechanism located in the outer ear?
---the eardrum

Where is the eardrum located?
---the end of the outer ear

What is the purpose of the eardrum?
---turns sound into sound waves
Lesson Two: Vision, Hearing, Respiratory System

Where are all the hearing mechanisms except the eardrum located?
---within the skull

What are the names of the three bones located behind the eardrum?
---hammer, anvil and stirrup

What is the function of the hammer, anvil and stirrup?
---transmits sounds to the cochlea

What is the name of the snail-shaped part of the ear?
---cochlea

What is the shape of the cochlea?
---snail

Where is the auditory nerve located?
---in the cochlea

What does the auditory nerve do?
---transmits sounds to the brain

Where are the semi-circular canals located?
---near the cochlea in the ear

What is the purpose of the semi-circular canals?
---maintain the cat’s sense of balance

What is the tube located between the middle ear and the throat?
---eustachian tube

Where is the eustachian tube located?
---between the middle ear and the throat

What is the purpose of the eustachian tube?
---equalize pressure, prevent eardrum rupture

Name ___ parts of the ear.
---eardrum  ---cochlea
---hammer  ---auditory nerve
---anvil  ---semi-circular canals
---stirrup  ---eustachian tube

Give ___ functions of the respiratory system (lungs).
---transfer oxygen from the air to the blood
---remove carbon dioxide from the blood and carry it out to the air
---aids in regulating body temperature
Lesson Two: Vision, Hearing, Respiratory System

What is located on each side of the chest?
---lungs

Where are the lungs located?
---on each side of the chest

What connects the throat and the chest, carrying air to the lungs?
---the bronchial tubes

What do the bronchial tubes do?
---connect the throat and chest, carrying air to the lungs

What do we call the small tubes that branch off the bronchial tubes?
---bronchioles

What are bronchioles?
---small tubes that branch off the bronchial tubes

What do the bronchioles do?
---distribute air throughout the lungs

The bronchioles branch off into what?
---air sacs

What is a small sac in the lungs that is enclosed by blood capillaries?
---an air sac

What is an air sac?
---a small sac in the lungs that is enclosed by blood capillaries

What do air sacs do?
---allow gases to escape or be absorbed

Name the three branches that air travels through before it is absorbed into the blood.
---bronchial tubes
---bronchioles
---air sacs

Lesson Three: Circulatory and Digestive Systems: Circulatory System:

What carries nutrients and oxygen to body cells, and carries waste products away from cells?
---blood
What does blood do?
---carries nutrients and oxygen to body cells
---carries waste products away from cells

How many chambers are in a cat’s heart?
---four

What receives blood from veins and pumps it through the arteries to all parts of the body?
---the heart

What does the heart do?
---receives blood from veins and pumps it through the arteries to all parts of the body

What carries impure blood to the heart?
---anterior and posterior vena cavas

What do the anterior and posterior vena cavas do?
---carry impure blood to the heart

What are the names of the arteries that carry blood from the heart?
---anterior and posterior aortas

What do the anterior and posterior aortas do?
---carry blood from the heart

Where do the aortas carry the blood after leaving the heart?
---One carries impure blood to the lungs where it releases carbon dioxide and picks up oxygen before returning to the heart. The other carries blood to all parts of the body where it distributes oxygen and picks up waste material.

Name ___ parts of the blood
---plasma
---red blood cells
---white corpuscles
---platelets

What is the fluid of the blood called?
---plasma

What is plasma?
---the fluid of the blood

Lesson Three Continued: Circulatory and Digestive Systems: Circulatory System:

What gives blood its red color?
---hemoglobin
What is hemoglobin?
---a pigment that gives blood its red color

What does hemoglobin do?
---It transports oxygen and carbon dioxide.

What part of the blood functions in oxygen distribution?
---hemoglobin

What part of the blood fights infections?
---white corpuscles

What do white corpuscles do?
---fight infection by surrounding impurities and microbes that enter the blood

What part of the blood causes clots or coagulation?
---platelets

What do platelets do?
---cause blood to clot or coagulate

What organ stores blood and destroys old blood cells?
---the spleen

What does the spleen do?
---stores blood and destroys old blood cells

Where is the spleen located?
---behind the stomach

What are the filtering devices located along the blood route
---lymph nodes

What are lymph nodes?
---filtering devices located along the blood route

What do lymph nodes do?
---purify blood by destroying viruses, bacteria, and other alien matter

How is lymph circulated?
---by muscular activity and intestinal action

Lesson Three Continued: Circulatory and Digestive Systems: Digestive System:

What is the name of the system that processes food?
---digestive system
What is the function of the digestive system?
---processes food into a usable form that is distributed by the blood, and eliminates unused matter

Name ___ parts of the digestive system.
---mouth  ---duodenum  ---small intestine
---teeth  ---liver  ---large intestine
---esophagus  ---gall bladder  ---rectum
---stomach  ---pancreas  ---anus
---pylorus  ---tongue

What is the opening to take in food; the doorway to the digestive system?
---mouth

What is the mouth?
---the opening to take in food; the doorway to the digestive system

How many permanent teeth does a cat have?
---thirty

What is another name for the baby teeth?
---the milk teeth

What are milk teeth?
---another name for the baby teeth

How many milk teeth does a kitten have?
---twenty-six

At what age does a kitten lose its milk teeth?
---five to seven months

What are the four types of teeth?
---incisors  ---canines  ---premolars  ---molars

How many incisors does a cat have?
---twelve

How many canines does a cat have?
---four

Lesson Three Continued: Circulatory and Digestive Systems: Digestive System:

How many premolars does a cat have?
---ten
How many molars does a cat have?
---four

Why does a cat have mainly incisors and canines?
---to hold and tear food

Which teeth are important for holding and tearing food?
---incisors and canines

The incisors are used for what?
---holding and tearing food

What do we call the part of the tooth visible above the gums?
---the crown

Which part of the tooth is the crown?
---the part visible above the gums

What is the part of the tooth at the gum line?
---the neck

Where is the neck of the tooth?
---at the gum line

What do we call the part of the tooth below the gum line?
---the root

Where is the root of the tooth?
---below the gum line

What is the main function of the root of a tooth?
---to hold the tooth in place

What are the three layers of the tooth?
---enamel
---dentine
---pulp

What is the hard, protective, outer covering of the tooth?
---enamel

What is the enamel of a tooth?
---the hard, protective, outer covering of the tooth

Lesson Three Continued: Circulatory and Digestive Systems: Digestive System:

The crown and the neck are covered by what?
---enamel
What parts of the tooth does the enamel cover?
---the crown and the neck

What is inner part of the crown of a tooth?
---dentine

What is dentine?
---the inner part of the crown of a tooth

Where do we find the blood vessels and nerves of a tooth?
---in the pulp

What is in the pulp of a tooth?
---blood vessels and nerves

Can cats develop cavities?
---rarely

What do we call the tube that carries food from the mouth to the stomach?
---esophagus

What is the esophagus and its purpose?
---a strong, elastic tube that carries food from the mouth to the stomach

What is another name for the esophagus?
---gullet

What is another name for the gullet?
---esophagus

In what part of the body does early stages of digestion take place?
---stomach

What is the stomach?
---a sac-like organ with elastic walls where early stages of digestion takes place

What happens to food in the stomach?
---acid liquids help break down fats and proteins

What do we call the valve located at the bottom of the stomach?
---pylorus

Lesson Three Continued: Circulatory and Digestive Systems: Digestive System

What is the pylorus?
---a valve located at the bottom of the stomach
What does the pylorus do?
---regulates passage of food from the stomach into the duodenum

What regulates the passage of food from the stomach to the duodenum?
---pylorus

What is the duodenum?
---the first section of the small intestine

What do we call the first section of the small intestine?
---the duodenum

What do we call the fluid produced by the liver?
---bile

What is bile?
---a fluid produced by the liver to break down fats

Where is bile stored?
---in the gall bladder

What is the function of the gall bladder?
---to store bile produced by the liver

What does the bile do?
---works to break down fats

Where does bile work to break down fats?
---in the duodenum

Where are enzymes produced?
---in the pancreas

What two substances are produced in the pancreas?
---enzymes
---insulin

Where is the substance that converts starch to dextrin produced?
---in the small intestine

What do the substances produced by the small intestine do?
---convert starches into dextrin; then break them down into glucose

Lesson Three Continued: Circulatory and Digestive Systems: Digestive System

In what part of the digestive system is food completely broken down and absorbed into the blood stream?
---the small intestine
What is the largest organ in the cat’s body?
---the liver

What organ is located in front of the stomach on the right side of the cat’s body?
---the liver

Where in the cat’s body is the liver located?
---in front of the stomach on the right side of the body

Where is urea manufactured?
---in the liver

Name ___ functions of the liver.
---manufactures bile
---manufactures urea
---destroys bacteria
---regulates sugar utilization

Which two organs function in the utilization of sugar?
---the liver and the pancreas

Where are the islets of langerhans?
---in the pancreas

What part of the pancreas manufactures insulin?
the islets of langerhans

What does insulin do?
---helps the body use sugar

What is the condition caused by lack of insulin?
---diabetes

What is diabetes?
---a condition that results from lack of insulin

What are the two main functions of the large intestine?
---absorb water
---break down waste materials by bacterial action

Lesson Three Continued: Circulatory and Digestive Systems: Digestive System

What do you call the last part of the digestive system through which waste materials must pass?
--the rectum
What do you call the outer opening of the rectum?
---anus

What is the rectum?
---the final part of the digestive system through which waste materials must pass before being excreted

What is the anus?
---the outer opening of the rectum

Name ___ parts of the urinary system.
---kidneys        ---bladder
---ureters        ---urethra

Which organs filter liquids?
---the kidneys

What do the kidneys do?
---filter liquids

What transports liquid wastes from the kidneys to the bladder?
---the ureters

What do ureters do?
---transport liquid wastes from the kidneys to the bladder

Where are liquid wastes stored until discharged?
---the bladder

What does the bladder do?
---stores liquid wastes

What do you call the tube that connects the bladder to the exterior of the body?
---the urethra

What is the urethra?
---a tube from the bladder to the exterior of the body through which liquid wastes are expelled

Lesson Four: Reproductive System

What is a heat period?
---a few days during which a female cat becomes interested in mating and can become pregnant if she does mate

What do we call the period during which a female cat can become pregnant?
---heat

Name ___ signs that characterize a female cat in heat.
---rolling  ---rubbing  --yowling
---stretching  ---crying

Name two ways in which you can prevent pregnancy.
---Keep the female in the house, isolated from any tomcats.
---Have her spayed.

What is spaying?
---a surgical procedure in which the female reproductive organs are removed

What do we call the surgical removal of female reproductive organs?
---spaying

At what age do you generally spay a female cat?
---six to seven months

What is neutering?
---a surgical procedure in which the male cat’s testicles are removed

What do you call the surgical removal of a male cat’s testicles?
---neutering

What happens when you leave a male cat unaltered (not neutered)?
---The cat gets into many fights.
---The cat marks his territory by spraying strong smelling urine indoors and out.

Why is it important to neuter male cats?
---It prevents birth of unwanted kittens.
---The cat becomes a more suitable house pet.

Name ___ parts of the male reproductive system.
---penis  ---prostate gland
---scrotum  ---urogenital canal
---testicles  ---spermatic cord

What are the two substances manufactured by the testicles?
---sperm and testosterone

Lesson Four Continued: Reproductive System

What part of the body manufactures testosterone?
---testicles

What is testosterone?
---hormone that is essential to a male’s sexual development and activity
What do you call the hormone responsible for a male cat’s sexual development?  ---testosterone

What are sperm?  ---seeds produced by the testicles that fertilize eggs produced by the female

What are the seeds produced by the testicles?  ---sperm

What does the prostate gland produce?  ---seminal fluid

Where is the seminal fluid produced?  ---prostate gland

What is the purpose of seminal fluid?  ---transport sperm

How are sperm transported?  ---in seminal fluid

What is the scrotum?  ---a saclike structure that holds the testicles

What do you call the saclike structure that holds the testicles?  ---scrotum

What is copulation?  ---the mating act of the male and female which results in fertilization of eggs by sperm

What do you call the mating act of the male and female?  ---copulation

Name ___ parts of the female reproductive system.
---vagina          ---cervix
---vulva           ---uterus
---ovaries         ---fallopian tubes

Lesson Four Continued: Reproductive System

What are the vulva?  ---the outer lips of the vagina

What do you call the outer lips of the vagina?  ---the vulva
What connects the inner and outer parts of the reproductive system?  
---the vagina

Name ____ functions of the vagina.  
---connects the inner and outer parts of the reproductive system  
---serves as passageway for sperm  
---serves as birth canal for kittens

What is the cervix?  
---the opening of the uterus that connects to the vagina

What do we call the opening of the uterus, which connects to the vagina?  
---cervix

What do you call the eggs?  
---ova

What is another name for ova?  
---eggs

Where are eggs produced?  
---in the ovaries

What do the ovaries produce?  
---eggs (ova)

What is the function of the fallopian tubes?  
---connect the ovaries with the uterus

What do you call the structures that connect the ovaries to the uterus?  
---fallopian tubes

What is fertilization?  
---the union of an egg and sperm which then develops into a kitten

What do you call the union of an egg and sperm?  
---fertilization

How many litters of kittens can a female cat have in a year?  
---two or three

Lesson Five: Care of the Pregnant Cat and Kittens

Name ____ things that you should do early in a cat’s pregnancy.  
---begin to feed her vitamin and mineral supplements.  
---treat any skin conditions.
---eliminate parasites.
---increase her food ration.
---make sure she is in good health.

What is the definition of gestation?
---the period of time from mating to the birth of kittens

What do you call the period from mating to the birth of kittens?
---gestation

What is the average length of a cat’s gestation period?
---sixty-one to sixty-three days

If the cat has not given birth after the normal gestation period, how many days should you wait before consulting a veterinarian?
---sixty-seven days

If the gestation period lasts longer than sixty-seven days, why is it important to consult a veterinarian?
---The cat may be having trouble or having a false pregnancy.

What is a false pregnancy?
---when a cat shows physical and emotional signs of pregnancy but is not carrying kittens

How can you tell if a cat is pregnant?
---a month after mating, you can gently feel her abdomen for lumps that are the developing kittens

At what point in the pregnancy does milk appear in the breasts?
---about the eighth week

What should you do if your pregnant cat’s breasts become dry and caked?
---Rub them with olive oil or mineral oil.

List ___ indications that a pregnant cat is about to deliver her kittens
---She becomes very restless.
---She may lose her appetite twelve to twenty-four hours before delivery.
---Her temperature will drop a degree.

Lesson Five Continued: Care of the Pregnant Cat and Kittens

What should you do shortly before delivery if your pregnant cat is longhaired?
---Trim away the hair around her breasts, anus, and vagina.

In a normal delivery, how long will it take all the kittens to be born?
---two to eight hours
During delivery of kittens, when should you consult a veterinarian?
---more than three hours between kittens
---labor lasting more than eight hours

When it is born, how does a kitten normally emerge?
---head first

What encloses each kitten when it is born?
---a transparent sac or membrane

Lesson Six: Care of the Pregnant Cat and Kittens Continued

What is the placenta?
---source of nourishment for kittens while in the uterus

What is the source of nourishment for kittens while in the uterus?
---placenta

Why is it important to be sure your cat expels all placentas?
---a retained placenta may interfere with the birth of the next kitten
---It will decompose and cause infection.

What is the definition of pregnancy?
---having a fetus or fetuses in the uterus

What do we call the condition of having fetuses in the uterus?
---pregnancy

What is a fetus?
---an unborn kitten developing in the uterus

What do we call an unborn kitten developing in the uterus?
---fetus

In reference to kittens, what is the definition of delivery?
---the passage of kittens from the uterus through the birth canal, to the outside world

What is a breech delivery?
---the kitten arrives hind feet first

What is a caesarian section?
---surgical removal of kittens from the uterus through the abdominal wall

What do we call the surgical removal of kittens from the uterus?
---caesarian section
What is eclampsia?
---depletion of blood calcium

What do we call the depletion of blood calcium?
---eclampsia

Name ___ symptoms of eclampsia.
---temperature of 103 degrees
---excessive panting
---loss of appetite
---convulsions
---collapse
---stilted walking
---coma

Lesson Six Continued: Care of the Pregnant Cat and Kittens Continued

What is the treatment for eclampsia?
---The veterinarian will give her a shot of calcium gluconate.

How long does the discharge from the mother cat’s vagina last after delivery of kittens?
---about seven to ten days

What is the normal color of discharge from the mother cat’s vagina following delivery of kittens?
---red or dark red

Following delivery of kittens, what color of vaginal discharge would indicate a problem?
---green or greenish yellow

What does a reddish vaginal discharge following deliver of kittens indicate?
---this is normal

What does a greenish yellow vaginal discharge following the delivery of kittens indicate?
---an infection, possibly caused by a retained placenta

How long should you leave a new mother and her kittens completely alone?
---two to three days

What are the physical limitations of newborn kittens?
---They cannot see or hear, and their legs are too weak to support their bodies.

How do you check a kitten for dehydration?
---Pinch the skin at the back of the kitten’s neck and quickly release it. If the skin does not snap back to its former position, the kitten is dehydrated.

Name ___ items that you can use to bottle-feed a kitten.
---eyedropper
---baby doll bottle
---special baby animal bottle

How much does a newborn kitten eat in one feeding?
---five to twenty-five drops

At what age does a mother cat begin to wean her kittens?
---four to five weeks of age

At what age are kittens totally weaned?
---eight weeks of age

During the weaning process, what are some good foods to give kittens?
---finely chopped beef ---baby cereal ---baby vegetables

Lesson Seven: Behavior

What is the definition of intelligence?
---capability to learn and retain what has been learned

Are all cats temperaments the same?
---no

What are the two basic cat temperaments?
---moody, aggressive, nervous, and quick to resent hurt or neglect
---docile and even tempered

What do most cats respond well to
---affection, gentle handling, pampering

How does a cat’s temperament compare to a dogs?
---Cats tend to be more aloof and independent than dogs.

Name ___ ways a cat show anger?
---ears laid back ---switching tail
---arching back ---stiffening body
---all hairs stand on end ---cat snarls and spits

Name ___ things you will notice when a cat is ready to fight?
---ears pressed flat against the head
---mouth partly open ---fangs barred
---forefeet firmly planted ---claws extended

Name ___ ways a cat shows affection.
---arch its back ---hold tail stiff and straight ---perk its ears
---rub its head and muzzle against people and objects
---kneads with forepaws, claws retracted
---sniffing delicately with the nose
---purrs with delight
---by touching
---by licking

Name ___ ways a cat shows courage?
---chases away large dogs
---kills large birds of prey
---sometimes get injured in protecting their young and homes