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CTE Frameworks - Animal Science Equipment List

## Suggested Equipment List

### Health and Safety

* First Aid Kits
* Fire Extinguisher
* Gloves, disposable
* Safety Boots (for work with livestock)
* Safety Goggles/Face Shields
* Respirators or Face Masks
* Lab Coats and Aprons
* Sun Protection
* Animal restraint devices, muzzles, and calming aids (e.g., pheromone sprays)
* Sharps Containers
* Biohazard Waste Disposal
* Eye Wash Stations

### Business Operation and Management (as needed)

* Budgeting software for tracking expenses, income, and payroll (e.g., QuickBooks, Zoho Books)
* Scheduling tools for facility or shop management (for grooming or farrier appointments, vet visits, etc.)
* Marketing materials (brochures, business cards, websites)
* Inventory management tools (for feed, nutrition care, bedding, etc.)
* Customer service tools (CRM software to track clients and appointments)

### Laboratory Equipment

* Anatomical models and preserved animal specimens (e.g., skeletons, muscle models, heart, and organ models)
* Dissection kits (scalpels, forceps, scissors, probes)
* Dissection Trays
* Glassware and glassware racks
* Microscopes
* Microscope slides
* Microscope cover slips
* Electronic balance
* Steam autoclave or sterilizers
* Animal weighing scales
* Livestock models, cattle, horses, swine, sheep
* Reproductive teaching models
* Artificial insemination tools (syringes, straws, thawing tanks)
* Semen tank complete with liquid nitrogen and management equipment
* Genetic testing kits and tools
* Hormone analysis kits (if applicable)
* Physiology simulation software
* Breeding management software (for tracking animal genetics, breeding dates, etc.)
* Chemical storage cabinets

### Animal Handling and Behavior Equipment

* Animal restraint tools (e.g., restraint pole, leash and collar set for dogs, halters for horses)
* Safety muzzle for dogs and cats
* Avian restrainers
* Animal catching devices, (catch poles, nets for smaller species)
* Training collars (slip leads)
* Training aids (clickers, treats, toys)
* Portable pens, chutes, and cages
* Animal behavior assessment tools (e.g., behavioral observation sheets, charts)
* Training dummies (for canine or livestock training)

### Companion Animals Tools and Equipment

* Pet Handling Tools: Leashes, collars, harnesses, and muzzles
* Crates and Cages
* Grooming Tools: Brushes (slicker, pin, bristle, etc.), Nail clippers (for dogs, cats, and small animals), Pet combs (different types for different fur textures)
* Grooming tables
* Hair clippers (for specific pet grooming)
* Shampoo, conditioners, and sprays suitable for pets
* Ear and Eye Care: Ear cleaners, cotton swabs, and specialized eye wipes
* Pet First Aid Kits: With bandages, antiseptics, and emergency supplies
* Health Monitoring Tools: Thermometers (rectal for pets), Stethoscopes, syringes, or medicine droppers
* Pet weight scales (digital or mechanical)
* Pet Food and Nutrition: Measuring tools for portion control and feeding bowls
* Pet Health Supplies: Flea, tick, and worming treatments, as well as supplements
* Small Animal Housing: Cages for rabbits, guinea pigs, hamsters, and other small animals.
* Pet Training Equipment: Clickers, training collars, and treat pouches, long training leads, training collars (e.g., gentle leaders, harnesses)
* Pet Toys. Chew toys, balls, or interactive toys for stimulation
* Scratching posts or pads for cats
* Exercise wheels or tunnels for small animals
* Pet stroller or wagon (for small pets, injured animals)
* Microchip scanners

### Classroom Technology and Instructional Tools

* Projector or Interactive Whiteboard
* Computers or Tablets
* Document Camera
* Lab Materials: Microscopes, slides, and dissecting kits
* Storage Solutions: Cabinets, shelving units, and bins

### Birds and Reptiles Specialized Equipment

* Safety equipment for handling (gloves, tongs, snake hooks)
* Specialized aquariums or terrariums (for housing aquatic and semi-aquatic birds/reptiles with built-in filtration systems)
* Feeding systems (e.g., automatic feeders, humidity-controlled enclosures for reptiles)
* Feeding Tools (tongs, tweezers)
* Heating Lamps or UVB Lighting and thermostats
* Temperature and Humidity Monitoring Systems
* Water testing tools
* Water Pumps for Aquatic Species
* Incubators for egg hatching
* Vivarium or aviary structures (to replicate natural habitats)
* Reptile-specific Substrates
* Identification guides (for bird and reptile species)
* Habitat enrichment tools (natural vegetation, climbing structures, hiding spaces)

### Pet Grooming

* Grooming Tables with restraint capability
* Electric Clippers
* Hand Clippers
* Nail Clippers (cat, dog) and Dremel
* Shampoo and Conditioner
* Dryers, high velocity
* Flea Combs and Brushes
* Mat Splitters and Dematting Combs
* Teeth Cleaning Kits: Brushes, toothpaste, and wipes for oral hygiene
* Ear Care: Ear cleaning solutions
* Grooming Aprons
* Shedding Blade
* Shedding Rake
* Slicker Brush
* Specialty grooming tools for different breeds (e.g., combs for specific coat types)
* Grooming towels
* Show leashes and collars
* Non-slip mats
* Protective barriers for dogs or pets in crates
* FURemover Pet Hair Remover Carpet Rake
* Large Non-Slip Bathtub and Shower Mats
* Dog bath/shower
* Stainless steel modular dog cage
* Pet Grooming Loop Noose (Stainless Steel Wire Rope Restraint Noose for Grooming Tables arm)
* Bath Dog (Sall, Medium and Large Dogs)
* Shower Drain Cover Hair Trap for Tub, Sink, Wash Basin
* Handheld Vacuum
* Touchless Stationary Vacuum for Pet Hair, Dust and Debris

### Equine Science

* Halters, lead ropes, and training leads
* Grooming Brushes: Curry combs, Dandy brushes, Body brushes, Mane and Tail Combs. Sweat Scrapers
* Hoof Care: Hoof picks, hoof oil
* Farrier tools, hoof nippers, rasps, nail pullers, and files, pulling tools, rasps, hoof stand
* Horse Blankets and Sheets
* Saddles and Tack: Saddles, girths, bridles, and bits, leg wraps or boots
* Horse Health Equipment: Thermometers, Stethoscopes, Weight tapes, Vaccination charts and records
* Horseman’s First Aid Kit: Supplies for handling equine injuries (bandages, antiseptics, etc.)
* Pregnancy testing equipment
* Weigh scales for accurate feed measurements
* Feed Scoops
* Riding Boots and Helmets
* Fly Control: Fly masks, fly sheets, and sprays
* Training Surcingle
* Leg wraps, bell boots, and protective gear for training
* Training aids (e.g., crops, lunge lines, lunge whips, Lunge Cavesson, cones for obstacle courses)
* Desensitization tools (e.g., flags, tarps, poles)
* Groundwork equipment for establishing trust and discipline (e.g., lead ropes, clickers)
* Round pens and training arenas
* Brooms
* Water Troughs
* Feed Bins
* Hay Racks or Nets
* Tack Room Storage
* Toolboxes with basic tools, screwdrivers, wire cutters, hammer, fence repair tools, etc.
* Horse Walkers
* Stalls, stable mats, and bedding (shavings, straw)
* Stall cleaning tools (manure forks, rakes, shovels, pitchforks, wheelbarrows, manure carts)
* Horse trailers and equipment for safe transport
* Stall mats for loading/unloading safety
* Pressure washers for cleaning stalls

### Livestock

* Breed Charts (Cattle, Swine, Horses, Sheep, Goats, Poultry, Dairy)
* Livestock Handling Equipment: Chutes, head gates, and sorting panels
* Feeding and Watering Systems: Automatic feeders and waterers for livestock.
* Livestock Health: Thermometers and stethoscopes, tools for deworming cattle, syringes and needles for vaccines, Pistol Grip Syringe
* Rope Cattle Halter
* Cattle Clippers
* Currycomb
* Drench Gun
* Balling Gun
* Nose tongs for cattle
* Cattle Prod
* Pelvimeter (used in cattle to predict/prevent calving problems)
* Disposable Syringes, 20 cc, 10 cc
* Ear Tags
* Ear Tag Pliers
* Ear Notcher
* Dehorner, electric or manual
* Dehorner, tube
* Hoof care tools
* Branding Iron, Freeze
* Branding Iron, Paint (Aluminum)
* Calf puller
* Chain-Obstetrical
* Cattle show stick
* Hog Holder
* Sheep blocking stand
* Sheep card
* Rope Sheep Halter
* Scotch comb
* Shearer's Screwdriver
* Wool card
* Wool grading kit
* Lamb Feeding Tube
* Show box, cattle, swine, sheep (transport show supplies)
* Clipping and Grooming Tools: Sheep shears, clippers for trimming fur or hooves
* Buckets, 2 to 5 gallons
* Pucket water heater
* Hose with nozzle
* Foot rot shears
* Electric fence tester
* Electric fence wire roller
* Electric extension cords
* Livestock Scales
* Manure Forks
* Wheelbarrows
* Manure Spreaders
* Composting

### Poultry Care Equipment

* Chicken feeders and waterers
* Nesting boxes and roosting bars/perches, wood shavings, straw, or hay for bedding, pine pellets or paper bedding
* Poultry cages or pens or chicken coup, with lighting, ventilation, feeding and watering system
* Air purifiers or dehumidifiers
* Chicken wire or poultry netting
* Temporary pens
* Poultry transport crates
* Heat lamps or heat pads
* Ventilation fans
* Humidity and temperature monitors
* Cold-weather insulation
* Incubators for hatching eggs
* Egg turners
* Egg cartons
* Egg candling tool (for checking egg development)
* Pipette (for adding humidity in incubators)
* Hopper feeders (gravity-fed for large flocks)
* Tray feeders (for small groups)
* Nipple drinkers or gravity waterers
* Automatic watering systems
* Hanging or floor-mounted waterers
* Misting systems
* Chicken vaccination supplies
* Poultry first aid kit: antiseptic, bandages, eye wash, thermometers, bandages
* Poultry vitamins and supplements (for health support)
* Dewormers, Deworming syringes
* Flea/tick treatments
* Pecking order remedies (anti-pecking sprays or collars)
* Poultry dusting powder
* Dust bath containers
* Poultry scale
* Nail clippers or hoof trimmers (for trimming beaks or talons)
* Feather plucking
* Bird handlers
* Hens' comb protectors
* Coop Rake

### Pig and Goat Care

* Fencing tools & materials: Pliers, wire cutters, post hole diggers, t-post driver, (for constructing pens and paddocks.)
* Bedding materials (straw, hay, or wood shavings)
* Pig hutches or shelters
* Farrowing crates
* Hoop barns (temporary or mobile shelters)
* Pigs’ first aid kit: antiseptic, bandages, wound care supplies, anti-fungal or anti-bacterial ointment
* Needle Teeth Nippers (for piglets)
* Farrowing crate for swine
* Ear tags or tattoos
* Nose Rings
* Toenail trimmers
* Hoof trimming tools
* Thermometer
* Fly control products
* Veterinary syringes and needles
* Poultry netting or fencing
* Skin scrapers or brushes
* Piggery handling sticks or boards
* Livestock trailer
* Livestock Chute
* Hay racks
* Automatic waterers
* Goat pens or paddocks
* Outdoor shade or roofed areas
* Goat first aid kit: antiseptic, bandages, wound care supplies
* Breeding harness or marker
* Kidding kits (for helping with births)
* Kid feeding bottles (if bottle-feeding is necessary)
* Fencing (strong enough to contain goats, as they are great escape artists)
* Goat birthing stalls
* Goat handling sticks
* Goat halters
* Body score charts (for assessing the health condition of goats)
* Milk machines for goats
* Milk test kits

### Cleaning and Maintenance Equipment

* Litter boxes (for cats) and litter
* Pooper scooper or waste bags
* Cleaning supplies (pet-safe disinfectants, sprays)
* Vacuum (for pet hair)
* Shovels and scoops
* Coop disinfectants (non-toxic, poultry-safe)
* Litter forks (for sifting bedding)
* Dust bath containers (sand, ash, and diatomaceous earth for mites)
* Pressure washer or hose (for deep cleaning the coop)
* Broom and dustpan
* Coop rake (for collecting waste and bedding)
* Scrubbing brushes (for washing feeders and waterers)
* Mop and bucket (for cleaning floors in the coop)
* Squeegees
* Pressure washer

### Marine and Aquaculture

* Fish species identification guides (for both freshwater and marine species)
* Aquariums and Fish Tanks (various sizes for different aquatic species)
* Water Quality Testing Kits
* Ammonia, Nitrite, and Nitrate Test Kits
* Salinity meters or refractometers
* Alkalinity test kits
* Chlorine test kits
* Dissolved Oxygen (DO) Test Kits
* Temperature sensors/thermometers
* Conductivity meters
* Mechanical filters
* Biological filters
* UV sterilizers
* Bio-balls
* Sump filtration systems
* Air pumps
* Powerheads
* Wave makers
* Water aeration stones or diffusers
* Aquarium Heaters
* Chillers
* Temperature controllers
* Thermometers
* LED lighting
* UV light
* Daylight spectrum
* Actinic lights
* Fish nets
* Dip nets
* Casting nets
* Fish traps
* Harvesting buckets or containers
* Fish handling gloves
* Automatic feeders
* Broadcast feeders
* Hand-held feeders
* Fish food storage bins
* Algae scrubbers or scrapers
* Siphon pumps
* Aquarium vacuums
* Submersible vacuum pumps
* Tank cleaning brushes
* Sediment filtration systems
* Substrate for aquariums
* Aquatic plant pruning
* Plant fertilizers
* Planting tools
* Fish disease diagnostic kits
* Aquarium microscopes
* Fish treatment medication
* Fish dip nets and bags
* Water clarifiers
* Acriflavine or copper sulfate
* Spawning tanks or breeding nets
* Egg collectors
* Incubators
* Oxygen supply system
* Live rock or coral care kits
* Coral fragging tools
* Invertebrate care equipment
* Rotifer or algae culture kits
* Live feed culture containers
* Shellfish trays or baskets
* Seeding tools
* Shellfish monitoring tools
* Air diffusers or air stones
* Aquaculture aerators
* Oxygen generators
* Aquaculture tanks or raceways
* Aquatic species tagging tools
* Farming nets or cages
* Transportation tanks
* Thermal packaging
* Insulated containers
* Positive reinforcement tools (e.g., clickers, whistles, treats for training)
* Targeting poles
* Sound recording equipment (to study vocalizations of marine mammals)
* Digital cameras or underwater cameras
* Marine ecosystem models

### Research Animal Technology

* Plastic or stainless-steel cages
* Enclosed housing units
* Aquatic tanks
* Multi-level cage racks
* Isolator cages
* Sterile bedding
* Hay or straw
* Absorbent pads
* Heating pads or lamps
* Air filtration systems
* Rodent feeders
* Animal-specific food containers
* Automatic water dispensers, Water bottles or sipper tubes, Water bowls
* Feeding stations
* Thermometers (digital or infrared for measuring body temperature)
* Blood pressure monitors
* Pulse oximeters
* Heart rate monitors
* Stethoscopes
* Syringes and needles
* Injection kits for IV fluids
* Tweezers
* Blood collection tubes
* Urine collection kits
* Fecal collection containers
* Viral, bacterial, and parasite testing kits
* Bottle brushes
* Monitoring devices (e.g., telemetry systems for heart rate, movement tracking)
* Cryopreservation containers
* Animal tagging devices
* Recovery kennels (to monitor animals after anesthetic procedures)
* Injectors (for precise subcutaneous, intramuscular, or intravenous injections)
* Needles of various sizes
* Exercise wheels
* Chew toys and tunnels
* Interactive toys
* Nesting materials structures
* Perches and climbing
* Foraging devices
* Automated behavioral tracking systems
* Operant conditioning chambers (Skinner boxes for behavior analysis)
* Social housing units
* T-maze or Y-maze setups (for cognitive testing)
* Running wheels with motion sensors
* Animal behavior recording cameras
* Large animal pens
* Individual or group housing setup
* Temperature and humidity data loggers (to monitor environmental conditions in real-time)
* Activity trackers (for monitoring movement, feeding, and sleeping patterns)
* Electronic lab notebooks
* Remote monitoring systems (for off-site monitoring of research animals)
* Animal tracking systems (using RFID chips or GPS for larger animals)
* Microscopes (light microscopes, electron microscopes for tissue analysis)
* Autoclaves (for sterilizing equipment and tools)
* UV sterilizers (for disinfecting cages or surfaces)
* Chemical disinfectants (pH-neutral cleaners for animal enclosures)
* Sanitizing wipes
* Plastic or metal transport cages
* Carrying cases
* Restraint devices (e.g., restraint tubes for rodents, harnesses for rabbits or primates)
* Muzzles
* Netting or traps
* Animal identification tags
* Ethical treatment documentation (to ensure research complies with animal welfare regulations)