Hamilton Heights School Corporation
Curriculum Map

Course Title: Animal Science	Quarter 1:	Academic Year: 25-26

Essential Questions					
Unit Name	Total Days	Standards Number	Knowledge & Skills Objectives Skills Objectives	Specific Assessments	Specific Resources
1. Worlds of Opportunity - Animal Planet	5	AS.01	<u>Lesson 1.1 Animal Planet</u> 1. Animals are used to sustain human existence by providing many essential products. 2. Animals serve many purposes in the lives of humans. 3. Career opportunities exist in animal agriculture for all levels of education in the areas of production, processing, marketing, and regulation.	Unit Quiz/Test	CASE Animal Curriculum Google Drive - Animal Science
2. History & Use of Animals	15	AS.01 AS.02 AS.08 CS.04	<u>Lesson 2.1 Taming Animals</u> 1. Animal species were domesticated at different times throughout history using different methodologies. 2. Humans benefit from the domestication of animals. 3. Domesticated animals receive their basic needs, such as	Domestication Timeline Test Dale Hummel - Podcast - Domesticating animals How Dogs Got their	

			water, feed, and shelter, from humans. 4. Domestication of animals is achieved through breeding, handling, and training. <u>Lesson 2.2 Naming Animals</u> 1. All living organisms are classified using kingdom, phylum, class, order, family, genus, and species. 2. Animals are classified several different ways, such as binomial nomenclature, purpose, and characteristics of anatomy and physiology. 3. There are different breeds of animals with common ancestors that have defining characteristics displayed in offspring. 4. Dichotomous keys are a classification tool that can be used to identify objects based on their physical features.	Shapes-Video	
3. Animal Handling & Safety 3.1 - Rights vs Wrongs	20	AS.01 AS.02 AS.06 AS.07 AS.08 CS.01 CS.06 CS.07	<u>Lesson 3.1 Animal Rights or Animal Wrongs?</u> 1. Animal welfare and animal rights are differing belief systems pertaining to the acceptable use of animals. 2. The value humans place on live animals and the use of products derived from animals is influenced by the beliefs of an individual. 3. The use of animals for food and fiber sometimes create	Unit Test 3.1 Quiz Propaganda Poster	Google Drive - Rights/Wrongs Videos Blackfish

		CS.08 CS.09 CS.11	ethical dilemmas for producers and consumers. 4. Producers of animal products must consider the welfare of animals during the production process. 5. Profitability is maximized when animals are properly managed.		

Course Title:Animal Science	Quarter 2:	Academic Year:

Essential Questions					
Unit Name	Total Days	Standards Number	Knowledge & Skills Objectives Skills Objectives	Specific Assessments	Specific Resources
UNIT 3 - Animal Handling & Safety 3.2 3.3		AS.01 AS.02 AS.06 AS.07 AS.08 CS.01 CS.06 CS.07 CS.08 CS.09	<u>Lesson 3.2 Manipulating Manners</u> 1. Animals respond instinctively to stimuli and changes in their surroundings. 2. Animals exhibit both instinctive and learned behaviors. 3. Safe handling and restraint procedures protect the animal and handler. <u>Lesson 3.3 Home Sweet Home</u> 1. Animals require food, shelter, and water for survival. 2. Animal facilities differ based on environmental factors, species, use, and size of operations.	Unit Test 3.2 Quiz 3.3 Quiz Create Animal Facility - Designing	Temple Grandin - HBO Film

		CS.11	3. Animal facilities are designed to protect the safety and health of animals and handlers. 4. Animal facilities should include biosecurity precautions. 5. Biosecurity practices are implemented to reduce the spread of pathogens on farms. 6. Safe laboratory procedures include reading and following all instructions, wearing proper personal protective equipment, and cleaning up thoroughly when finished.		
UNIT 5 - Animal Nutrition 5.1 5.2 5.3		AS.02 AS.04 AS.05 CS.04 CS.06 CS.11	<u>Lesson 5.1 Digestion Junction</u> 1. Digestive systems vary among species of animals. 2. Ruminants have a four-chambered stomach consisting of the rumen, reticulum, omasum, and abomasum, each with a specific function. 3. Digestion and absorption is accomplished through a process of mechanical, chemical, and biological decomposition of food by the organs of monogastric, ruminant, pseudo-ruminant, and avian digestive systems. 4. Diet of an animal is determined by its type of digestive system. <u>Lesson 5.2 The Need for Feed</u> 1. The six nutrient groups all animals require include water, carbohydrates, protein, fats, vitamins, and minerals. 2. Animals require nutrients from all six nutrient groups to	Unit Test 5.1 Quiz 5.2 Quiz 5.3 Quiz Playdoh/3D Digestive Systems	Deer Stomach - Dissections Feedstuff ID

			thrive, survive, and reproduce. 3. The specific nutritional requirements of individual animals are dependent upon species, age, and level of production. <u>Lesson 5.3 Feedstuffs</u> 1. Animals derive nutrition from a variety of sources including roughages and concentrates. 2. Feedstuffs of the same type can vary in nutrient composition and nutritional value based on the location, time of harvest, growing conditions, water availability, and soil conditions of the area in which the feed is grown. 3. The nutritional value of a feed can be determined through feed analysis. 4. Feed labels are an important source of nutritional information.		

Course Title: Animal Science	Quarter 3:	Academic Year:

Essential Questions					
Unit Name	Total Days	Standards Number	Knowledge & Skills Objectives Skills Objectives	Specific Assessments	Specific Resources
UNIT 5 - Animal Nutrition		AS.02 AS.04	<u>Lesson 5.4 Nutritional Disorders</u> 1. Animal growth, development, and health are directly	Unit Test 5.4 Quiz	Edible Feed Lab

5.4 5.5		AS.05 CS.04 CS.06 CS.11	related to meeting nutrient requirements of the animal. 2. A deficiency or toxicity of one or more nutrients may result in poor growth and performance. 3. Animals at various stages of growth and development have different nutrient requirements. 4. Nutrient deficiencies in animals may result in poor performance and contribute to economic losses. <u>Lesson 5.5 What's for Dinner?</u> 1. Livestock rations are developed to meet the requirements of animals, maximize feed efficiency, and minimize cost of production. 2. Concentrates and roughages form the bulk of a ration. 3. Rations can be formulated using a variety of methods. 4. Supplements are used to complete a ration in order to meet the nutritional requirements of an animal. 5. Using mathematics and problem solving are important skills for animal producers when formulating rations.	5.5 Quiz Nutrient Disorder Posters Create a feed	
UNIT 6 - Animal Reproduction 6.1		AS.01 AS.02 CS.04 CS.05 CS.06 CS.08 CS.09 CS.10	<u>Lesson 6.1 Mom, Where Do Calves Come From?</u> 1. Male and female reproductive systems differ in structure and function. 2. The female reproductive system consists of the ovary, infundibulum, fallopian tubes (oviducts), uterus, cervix, vagina, and vulva. 3. The male reproductive system consists of testes, scrotum, epididymis, vas	Unit Test 6.1 Quiz 3D models	Reproduction Dissection Lab Uterus: Pig, Cow, Lamb

		CS.11	deferens, prostate gland, Cowper's gland, seminal vesicle, urethra, and penis.		

Course Title: Animal Science	Quarter 4:	Academic Year:

Essential Questions					
Unit Name	Total Days	Standards Number	Knowledge & Skills Objectives Skills Objectives	Specific Assessments	Specific Resources
UNIT 6 - Animal Reproduction 6.2 6.3		AS.01 AS.02 CS.04 CS.05 CS.06 CS.08 CS.09 CS.10 CS.11	<u>Lesson 6.2 Generating Generations</u> 1. Straight breeding is used to produce purebred breeding stock while crossbreeding is used to produce vigorous market animals. 2. There are four breeding methods a livestock producer may choose when breeding livestock, which have advantages and disadvantages. 3. Artificial insemination and embryo transfer allow producers to improve the genetics of their animals more efficiently. 4. Cloning is possible in livestock, but not practical or widely used at present. 5. The potential fertility and viability of semen may be determined based on its motility, morphology, and concentration.	Unit Test 6.2 Quiz 6.3 Quiz Easter Egg Genetics Lab	

			<u>Lesson 6.3 The Pathway to Production</u> 1. Reproductive processes vary by species of animal. 2. The reproductive cycle of females consists of puberty, the estrous cycle, gestation, parturition, and lactation. 3. Understanding of the estrus cycle and hormonal control is essential for reproductive success. 4. The breeding season of animals may be manipulated for economic gain.		
UNIT 9 - Animal Products		AS.01 AS.02 AS.05 AS.06 ABS.06 CS.02 CS.03 CS.04 CS.05 CS.06 CS.07 CS.08 CS.10 CS.11	<u>Lesson 9.1 The Products of Our Toil</u> 1. The primary purpose of livestock production is food and fiber. 2. Grading is used to provide a consistent and palatable product. 3. Products may be categorized as fresh or processed. 4. Consumer demand drives production and availability of fresh and processed goods.	Unit Test 9.1 Quiz Meat Evaluation CDE Meats ID Variety Meat Testing (cookout)	Beutler Meat Processing Plant - Tour