Name_____

Companion Animal
Intro to Small Animal Care activity

Part 1: Evolutionary timeline of biological events

-Use the chart on the back (Figure 1-1 in 3rd ed. text) to construct a scale timeline using receipt tape
-Scale: 1foot = 100,000,000 years.
-You should include all 18 biological events on your timeline.

Part 2: Specialty animals

-Create a chart/graph/visual that compares the populations of specialty and exotic pets owned in 1991 and 2006 (use the table below for data) (Table 1-2 in 3rd ed. text)
-Use your chart to answer the following questions:

1. Which pets increased in population?

2. Which pets decreased in population?

3. Which pet has the greatest population? Why do you think this is?

4. Which class (mammalian, reptilian, aves, or osteichthyses) is the most popular class of pet to own?

5. Which class is the least popular to own?

TABLE 1-2 United States Pet Ownership—The Number of Specialty and Exotic Pet-Owning Households and Pet Population Estimates, December 31, 1991, 1996, 2001, and 2006.

Type of Pet	Number of Pets Per Household				Number of Households (1,000)				Population of Pets (1,000)			
	1991	1996	2001	2006	1991	1996	2001	2006	1991	1996	2001	2006
Fish*	9.05	8.92	7.70	8.4	2,652	6,228	6,396	9,036	23,997	55,554	49,251	75,898
Ferrets*	1.45	2.00	2.10	2.1	189	395	472	505	275	791	991	1,060
Rabbits*	3.22	2.63	2.70	3.3	1,420	1,878	1,783	1,870	4,574	4,940	4,813	6,171
Hamsters	1.39	1.86	1.20	1.5	947	1,008	734	826	1,316	1,876	881	1,239
Guinea Pigs	1.77	1.87	1.20	1.6	473	583	524	628	838	1,091	629	1.004
Gerbils	2.18	2.76	1.90	2.3	284	277	168	187	619	764	319	431
Other rodents	2.31	2.42	2.50	2.1	379	435	315	452	875	1,053	786	949
Turtles	1.87	1.78	1.70	1.8	379	534	629	1,106	708	950	1,070	1,991
Snakes	3.88	4.14	2.10	1.5	189	217	315	390	735	900	661	586
Lizards	1.66	1.55	1.30	1.5	189	455	419	719	314	705	545	1,078
Other reptiles	2.97	2.75	1.90	2.9	95	336	315	69	281	924	598	199
Other birds (pigeons & poultry)	13.78	13.16	9.19	10.7	379	336	315	464	5,220	4,423	2,894	4.966
Livestock	7.12	11.61	5.60	15.1	473	524	524	728	3,371	6,083	2,936	10,995
All others	3.37	3.26	2.40	3.1	189	376	839	1,182	638	1,225	2,013	3,664

Rocks also reveal even more distant, indirect traces of life. Living things use particular isotopes (atomic forms) of the element carbon preferentially. The mix of carbon isotopes detected in rocks from Greenland more than 3.8 billion years old shows evidence of life on earth.[1]

Some 2.2 billion years ago, free oxygen was present in the atmosphere. Living things used this reactive substance in the biochemical functions of their cells. The free oxygen in the atmosphere also produced a layer of ozone, which filters out the ultraviolet light from the sun that is harmful to life. *See Figure 1–1.*

Era	Period	Epoch	Biologic events	Years before present (B.P.)	Geologic events Events refer especially to North America and do not reflect great worldwide variations
PRE-CAMBRIAN	Hadean Archeon Proterozoic		Fossil algae; other fossils extremely rare; evidence of sponges and worm burrows	4.5 billion 3.8 billion 2.5 billion	Volcanic activity; mountain building; glaciations; variable climate
PALEOZOIC	Cambrian		Origin of many invertebrate phyla and classes; trilobites dominant; marine algae	600 million	Three periods of land submergence; mild
	Ordovician		Ostracoderms (first vertebrates); abundant marine invertebrates; first land plants	500 million	Submergence of land; warm
	Silurian		First jawed fishes	425 million	Continental seas and reefs; mild
	Devonian		First amphibians; freshwater fishes abundant; bryozoans and corals	405 million	Inland seas; first forests; mild
	Carboniferous	Mississippian	Radiation of amphibians; abundant sharks; scale trees and seed ferns	345 million	Inland seas; warm to hot; swamplands
		Pennsylvanian	First reptiles; giant insects; great conifer forests	310 million	Shallow inland seas; extensive coal deposits; warm and moist
	Permian		Radiation of reptiles; ; displacement of amphibians; extinction of many marine invertebrates	280 million	Continents elevated; building of Appalachians; cold and dry
MESOZOIC	Triassic		First dinosaurs; mammal-like reptiles; conifers dominate plants	230 million	Continents elevated; widespread deserts; cool and dry
	Jurassic		First birds; first mammals; dinosaurs abundant	180 million	Continents with shallow seas, building of Sierra Nevada mountains; cool then mild
	Cretaceous		Climax of giant land and marine reptiles, followed by extinction; flowering plants; decline of gymnosperms	135 million	Spread of inland seas and swamps; building of Andes, Himalayas, Rockies; mild to cool
CENOZOIC	Tertiary	Paleocene	First placental mammals	70 million	Mountain building; subtropical
		Eocene	Radiation of placentals	60 million	Mountain erosion; rain and mild
		Oligocene	Apes, monkeys, whales	40 million	Mountain erosion; mild
		Miocene	Abundant grazing mammals	25 million	Plains and grasslands; moderate
		Pliocene	Large carnivores	7 million	Continental elevation; cool
	Quaternary	Pleistocene	Early man	0.5 to 3 million	Ice ages; then warmer
		Recent	Modern man	11 thousand	

Figure 1–1 The history of the earth is divided into periods of time. This geologic time chart shows the geologic events that occurred in North America and the living organisms that were present during the geologic events.