

Environmental Science Biomes Protocol

1. How much money has been collected by your group?

\$ _____

2. Which type of biome do you want to create? (circle one)

Tropical Rain Forest

Temperate Forest

Freshwater

Desert

Grassland

Other _____

3. What type of animal(s) will be included in your biome?

4. What type of plant(s) will be included in your biome?

5. What environmental conditions must exist in your biome? (temperature, humidity, etc.)

6. What necessary materials are needed to create your biome? (be specific / indicate costs)

7. Create a sketch of what your biome will look like in aquarium / terrarium form.

8. Create a typed Care Sheet to be taped to the back of your log clipboard with the following :

1. Environment / Habitat Requirements
2. Heating / Lighting Requirements
3. Feeding / Diet Requirements
4. Temperature / Humidity Requirements
5. Maintenance Schedule (how often should the biome be cleaned; animals fed)

Environmental Science Care Sheet Information

1. Environment / Habitat : (5 points)

- Describe what your biome habitat will consist of, with regards to plants, soil, substrate, and necessary room.

2. Heating / Lighting : (5 points)

- Describe the heating and lighting components necessary for your biome.

3. Feeding / Diet : (5 points)

- Describe the diet that your animals / plants require to survive long-term in your biome.

4. Temperature / Humidity : (5 points)

- Describe the necessary temperature and humidity levels needed to be maintained for your biome

5. Maintenance Schedule : (5 points)

- How often do you have to clean, feed, water, or change water in your biome to allow for a successful project?

6. Typed (5 points)

NONTOXIC PLANTS SUITABLE FOR PETS

Common Name (Scientific name)

ABELIA (*Abelia grandiflora*)
 AFRICAN VIOLET (*Saintpaulia ionantha*)
 SWEET ALYSSUM (*Allyssum* sp.)
 ASPERAGUS FERN (*Asperagus setaceus plumosis*)
 ASTER (*Aster* sp.)
 BABY TEARS (*Helxine soleirolii*)
 BIRD'S NEST FERN (*Asplenium nidus*)
 BOSTON FERN (*Nephrolepis exalta*)
 BOTTLE BRUSH (*Callistemom*)
 BOUGANVILLEA (*Bougainvillea*)
 BRIDAL VEIL (*Tripogandra multiflora*)
 BROMELIADS (*Aechmea*; *Bilbergia*; *Cryptanthus*)
 CACTUS, SPINELESS (*Astrophytum*)
 CAMELLIA (*Camellia japonica*)
 COLEUS (*Coleus*)
 CORN PLANT (*Dracaena fragrans*)
 CREEPING CHARLIE (*Pilea nummulariifolia*)*
 CROTON (*Codiaeum* sp.)
 DRACAENA (*Dracaena*)
 EMERALD RIPPLE (*Peperomia caperata*)
 EUGENIA (*Peperomia caperata*)
 FUSCHIA (*Fuschia*)
 GERANIUM (*Pelargonium* sp.)
 HEN AND CHICKS SUCCULENT (*Echeveria*)
 HIBISCUS (*Hibiscus rosa-sinensis*)
 HOYA (*Hoya exotica*)
 ICEPLANT (*Mesembryanthemum crystallinum*)
 IMPATIENS (*Impatiens*)
 JADE PLANT (*Crassula argentea*)
 JAPANESE ARALIA (*Fatsia japonica*)
 JASMINE (*Jasminum officinale*; *J. grandiflourm*)

Common Name (Scientific name)

LAVENDER (*Lavandula officinalis*)
 MARIGOLD (*Calendula officinalis*)
 MONKEY PLANT (*Ruellia makoyana*)
 MOTHER OF PEARL (*Graptopetalum paraguayen*)
 NATAL PLUM (*Carissa grandiflora*)
 PAINTED NETTLE (*Coleus*)
 PALMS (*Areca* sp.)
 PAMPAS GRASS (*Cortaderia selloana*)
 PARLOR PALM (*Chamaedorea elegans*)
 PEPEROMIA (*Peperomia caperata*)
 PETUNIA (*Petunia*)
 PHOENIX (*Phoenix roebelenii*)
 PIGGYBACK PLANT (*Tolmiea menziesii*)
 PILEA (*Pilea* sp.)
 PINK POLKA-DOT PLANT (*H. ypoestes sang.*)
 PONYTAIL PLANT (*Beaucarnea recurvata*)
 PRAYER PLANT (*Maranta leuconeura*)
 PURPLE PASSION: PURPLE VELVET (*Gynura*)
 SPIDER PLANT (*Ch'orophyllum comosum*)
 STAGHORN FERN (*Platynerium bifurcatum*)
 SWEDISH IVY (*Plectranthus australis*)
 TREE MALLOW (*Lavatera assurgentiflora*)
 UMBRELLA PLANT (*Eriogonum umbrellum*)**
 VELVET PLANT (*Gynura aurantaca*)
 WANDERING JEW (*Tradescantia albiflora*)
 WARNECKII (*Dracaena deremensis*)
 WAX PLANT (*Hoya exotica*)
 ZEBRA PLANTY (*Calathea zebrina*)
 ZINNIAS (*Zinnia* sp.)

*Not to be confused with another "creeping charlie," *Glecoma heteracea* which is toxic.

**Not to be confused with another "umbrella" plant, *Schefflera actinophylla* which is toxic.

Rupert's Care Sheet

Environment: Semi-Aquatic. Lots of light for basking and water for swimming purposes.

Heating/Lighting: Needs a UVB rays with full spectrum light for about 10-12 hours a day. You need a light going for most of the day for basking purposes.

Feeding/Diet: Feed juveniles once a day and adults every other day. You feed them by dropping food into the water. Only enough food for one feeding. There is a varied diet, turtle pellets that can be combined with non-toxic aquatic plants. You can also use anachris, water lettuce or dark leafed vegetables (endive, radicchio, romaine). Fish, Earthworms, insects can be used for treat.

Temperature/Humidity: Temperature needs to be between 90°-95° F in the basking area (warm area) and 70°-75° F in the water area (cold area). Use an incandescent light for primary heat source. Doesn't need humidity to survive.

Maintenance Schedule: Change water (75%) weekly or more often to keep water clean. Thoroughly clean the tank once a week. In order to clean the tank set the turtle aside scrub the tank and furnishings with 3% bleach solution, rinse thoroughly with water, removing all smell of bleach, add clean, dechlorinated water, with a temperature range from 70°-75° F before returning the turtle to their habitat.