Evolution and diversity lab reports assignment

One of these things is that we , as man may argue about where we came form and when we got here but we are mere children in the history of planet earth and mere infants in the life that has existed here. The goal of this lab was to understand and be familiar with the millions of organisms that live on earth everyday and how they got here. The goal was to understand how certain species died out, how they evolved to survive and how organisms have managed to make it millions of years on this planet. This lab takes a look at the three domains Bacteria, Archer, and Eukaryote, which contain animals, protests, fungi, bacteria, ND plants.

And after our observations from the lab me and mark grey my partner concluded many concrete facts about life, evolution, traits and survival. Observations- Throughout the lad we viewed many different organisms and many different traits. This lab takes a look at the three domains Bacteria, Archer, and Eukaryote, which contain animals, protests, fungi, bacteria, and plants. And throughout the lab we uncovered what makes each plant different and what makes each animal in a set kingdom different. The results of our observations were recorded and analyzed from the results that follow.

Observations of species and their traits that came from either divergent or convergent evolution were recorded and analysis of each kingdom of species in the lab is included. At the end of the lab mark grey and I concluded that no matter how many observations we collect the world is full of diverse species that live by their own means to survive in a diverse, hostile forever changing world. Laboratory 3 Diversity I Prokaryote, Prosiest, Fungi Prokaryote- Prokaryote are single celled organism without a nucleus or the

membrane bound organelles. They are the most ancient lineage of living organisms and exist in Archie and Bacteria.

The first type of prokaryote we will explore is bacteria. About 10% of bacteria cause disease, while a large part of bacteria plays important roles in the ecosystem as decomposer. There are three types of bacterial cells: cuscus, bacillus, and spiritualism all of which we observed in our first stage of the lab. We also observed many different bacterial take on many different shapes. We also looked at Archie and Contractible- Photosynthetic prokaryote are contractible or blue – green algae. Species that were observed under the microscope were Amoeba, Woos, Euglena..

These bacteria tend to live in water and be able to process their own food. After we observed and analyzed the Kingdom Prosiest- The Kingdom Prosiest contains two types of organisms unicellular animal-like organisms (the protozoa) and algae. Although most algae are unicellular some are multicultural. As we begin to focus on details and differences between the portraits we begin to notice how higher life forms have evolved. During the lab Mark and I viewed the ‘ Violence series” Chlamydeous, Pandora and Volvo and noticed and reflected on many ideas.

We noticed how things can evolve from From Single celled organisms all the way to a cluster of identical cells to a large group of cells which have certain fictions and purposes. These functions and purposes are designed to save energy and make life and homeostasis less intense. We later moved on to observing The Protests which are Eukaryotic cells that are unicellular. They are classified by the basis of the mode of locomotion. These cells have many

organelles; each organelle carries out specific functions. There were 4 classes or types of Protozoan which are separated and classified based off their means of movement AKA locomotion.

For examples Sardonic use pseudopodia to move and Sponsor are parasites that use their host to move. Another example is Flagellate and how it uses a small number of long, thin structures called Figural to carry out locomotion . And another example is how Ciliate use a large number of small, thin structure called cilia to go about locomotion. Our findings and examples can be viewed in the chart below. Class Type of locomotion I Example I Flagellates Flagella I Thyrotrophic I Ciliate cilia Paramecium Sardinia I pseudopodia I Amoeba I

Sopranos Parasitic no movement Plasmid visa I Towards the end of Diversity 1 we looked at several key things but still truly significant. The first was Fungi AND THE OTHER WAS Lichens. With Fungi, it can be parasitic or saprophytic. They get their nutrition from living on biotic things. They are usually containing more than one cell but can also be single celled. Although tiny they play a huge role in the ecosystem because Fungi act as decomposer, returning nutrients to the ecosystem to be re-used by successive generations of organisms.

In the Lab , the mushroom part of the Fungus is dad for reproduction. The part of the fungi that grows and metabolites is found beneath the decaying organic material and is called a McCollum, which are made up of Happy. And as for Lichens , they represent a relationship between algae and fungus. Looking denuder the microscope you can find 3 different type of lichens

which were Foliose, Fructose and Crosses. Although Lichens were observed in oral we have encountered them in nature walks as well as religiously talked about them and what goes on with them. End of Diversity one Activity three.

Laboratory 4 Diversity II: the Plant Kingdom JUMPING RIGHT into it and switching gears from microscopic organism we started discussing theosophist and general traits of certain plant life on the planet. The first type of Plants we discussed were the simplest yet first plants to ever move on land, they were the PHYLUM BRYOPHYTE and obviously they can survive and sustain homeostasis out of water and on land but do require water to reproduce. They do not produce seed and have no root or specialized tissues (vascular tissues) for transport of water and sugars.

These species must absorb water with their whole bodies and transport them and utilize them from he process of osmosis and diffusion. Mosses and liverworts are examples of Bryophytes and it should be noted they are small and usually lurk close to the ground to make osmosis and diffusion a much easier process but they still each have specific characteristics. Liver. ‘ rots reproduce asexually by developing cupcake structures called Game on its upper surface. When a game matures, they detach themselves and grow into new liverworts. We examined Liverworts in the lab when we examined Merchant.

As for MOSSES, mosses are primitive plants and the spores produced by meiosis are wind dispersed and hen grow into the major structure of its life cycle, the leafy moss plant called the commemorate. At the top of the

commemorate, certain cells mature into gametes (sperm or egg cells). The sperm swims through the puddle of dew or rainwater to get to the egg. The fertilized egg remains in place and grows into the minor structure of the life cycle, the saprophyte which consists of the thin stalk with a capsule on top. Inside the capsule is reduction division that reproduces spores for dispersal.

No seed is produced at any time. The next type of plants we observed were vascular plants, which belong to the Phylum Tracheotomy. Vascular Plants are believed to have evolved from moss like plants 300-400 millions years ago. They were the first plants to grow to large size and away from the open water. This was due to the fact that they had a vascular system which allowed these plants to form the first forest. The vascular system extends from the roots, through the stem and branches, into the leaves. The system enables efficient transport of water and nutrients throughout the plant.

All vascular plants include the more primitive vascular seedless plants ferns and horsetails. During the lab Mark and I examined the more advanced seed vascular plants like gymnosperm and angiosperm. But we still discovered many facts about vascular plants such as that the xylem and phloem make up the vascular tissue, which transports water, minerals, and nutrients thought the plant. These plants have two types of reproductive structures. One type is spores, and the other is seeds. Ferns, horsetails, and club Moses produce spores, which can easily be spread out by the wind.

While recording data on vascular plants we came across two terms Gymnosperm and Angiosperm. When observing the Gymnosperms in the lab we looked at Conifers and Ginkgo’s. The most familiar gymnosperms are

probably the common evergreen conifers (pines, firs, spruces). There are also several deciduous confers which drop all their needles at once in the autumn. During this lab I examined two groups Conifers and Ginkgo. Gymnosperm have a naked seed at the end of the stalk or lying naked on a cone scale, rather then being enclosed in a fruit like a Angiosperm. Conifers produce male cones and female cones in the spring.

In the small non woody male cone, reduction divisions occur on each cone scale, reducing many spores, each of which grow into microscopic commemorate – the pollen grain that contains only 3 cells, one of which is a sperm. The second term Angiosperms consist of flowering plants and after collecting information on it we realized just why Angiosperms have become the dominant plant life on the planet. They have accomplished this by virtue of their efficient means of reproduction. Of greatest significance was the evolution of flowers and fruits. Angiosperms are subdivided into two groups: Monocotyledons and Dicotyledonous.

A cotyledon is an embryonic structure that forms the first leaves f the developing plant. At the conclusion of diversity two Mark and I distinguished two different plant groups with two different set of traits and we set aside some significant parts of the plant and named them. The two plant groups are known as Monocots and Idiots. In monocots) grasses and lilies) you will find one cotyledon in the seed and find leaves with parallel leaf veins. As opposed to Idiots (iliac, apples, oak) which have TWO cotyledons in the seed and Net Veined leaves where veins branch and reproach.

At the end of the lab we listed the major parts of the plant we found to be important. Our notes are below Peduncle: The stalk of a flower. Receptacle: The part of a flower stalk where the parts of the flower are attached. Sepal: The outer parts of the flower (often green and leaf-like) that enclose a developing bud. Petal: The parts of a flower that are often conspicuously colored. Stamen: The pollen producing part of a flower, usually with a slender filament supporting the anther. Anther: The part of the stamen where pollen is produced. Pistil: The ovule producing part of a flower.

The ovary often supports a long style, topped by a stigma. The mature ovary is a fruit, and the mature ovule is a seed. Stigma: The part of the pistil where pollen germinates. Ovary: The enlarged basal portion of the pistil where ovules are produced. Laboratory 5: Diversity Ill: The Animal Kingdom The last part of our lab consisted of viewing the variety of species that exist in the Animal Kingdom. Mark and I found it extremely helpful to make a chart for this as opposed to actually bulk all our observations together, What we realized in turn was that Animals are forever changing and have been changing for many many many many years.