TASKS: COMMUNITIES AND ECOSYSTEM

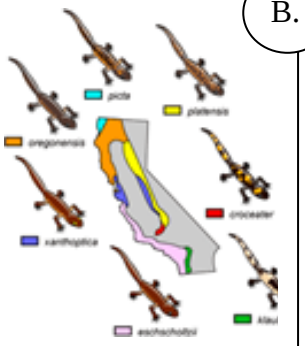
Task 1. Write a definition for the given concepts and mach them to the pictures:

1. Ecology	
2. Ecosystem	
3. Population	
4. Community	
5. Species	
6. Food chain	
7. Food web	
8. Omnivore	
9. Organic Compound	
10. Habitat	

A.

3.

B.



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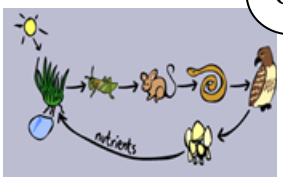

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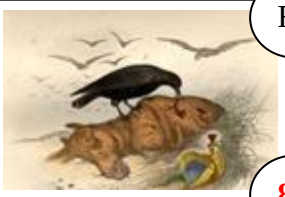

8.

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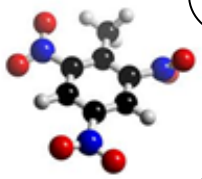

Notes:_____

Pictures retrieved from: 1. http://animalssafairs.blogspot.com/2012/08/the-amazing-great-wildebeest-migration.html#.Ud2x1_k3AaA ; 2. http://evolution.berkeley.edu/evosite/evo101/VA1BioSpeciesConcept.shtml; 3. http://www.sheppardsoftware.com/content/animals/kidscorner/foodchain/foodchain2.htm; 4. http://www.biologycorner.com/worksheets/foodweb.htm; 5. http://1234ewsfe5errd6.blogspot.com; 6. http://letthemeatmeat.com/post/430287173/are-humans-carnivores-omnivores-or-herbivores ; 7. http://www.kidsgeo.com/geography-for-kids/0164-ecosystems.php; 8. http://www.ceoe.udel.edu/kiosk/mural.html. 9. http://www.gcs.k12.nc.us/Page/7917; 10. http://factsaboutchemistry.blogspot.com/2012/09/naming-organic-compounds.html#.Ud23l_k3AaA.

Task 2. Ecosystems, Biomes, and Habitats. Read the text and write one or two questions for each paragraph. Then exchange and answer each other's questions with a colleague.

1. Ecosystems vary in size. They can be as small as a puddle or as large as the Earth itself. Any group of living and non-living things interacting with each other can be considered as an ecosystem. Within each ecosystem, there are **habitats** which may also vary in size. A habitat is the place where a **population** lives. A population is a group of living organisms of the same kind living in the same place at the same time. All of the populations interact and form a **community**. The community of living things interacts with the **non-living** world around it to form the ecosystem. The habitat must supply the needs of organisms, such as food, water, temperature, oxygen, and minerals. If the population's needs are not met, it will move to a better habitat. Two different populations cannot occupy the same **niche** at the same time, however. So the processes of **competition, predation, cooperation and symbiosis** occur.

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2. Habitats, then, are specific to a population. Each population has its own habitat. For example, a population of ants has its own habitat. Several **populations may share a habitat**. For instance, in a small pond several aquatic populations may co-exist in the same water at the same time. An **aquarium** is a good example of a shared habitat. A **terrarium** is another place where several populations will peacefully co-exist in the same habitat. **Vivaria** are habitats where several plant and animal populations live together. Within any shared habitat, **behaviour** influences the survival of a species. Behaviour can be **instinctual** or learnt.

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3. Biomes are ecosystems where several habitats intersect. The Earth itself is one large biome. Smaller biomes include **a desert, a tundra, grasslands and rainforests**. Biomes occur naturally, but people can also create controlled biomes. For example, you can integrate several small populations in a small space and observe what happens. A famous manmade biome is **Biosphere**2. Try making your own biome and observing what happens. The energy cycle within biomes, habitats, and ecosystems determines which populations survive and which die. All living things need energy. Ultimately, the sun is the source of all energy in an ecosystem. Different species have different functions: **producers, consumers, decomposers, and scavengers**.

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4. Habitats must also supply water for all living things to survive. Their needs are met through the **water cycle**. Since energy and water are vital to the survival of an ecosystem, a system of **conservation** is needed. In many ecosystems, the conservation of resources is a natural and almost an unnoticeable process. Life substances, for example, are recycled in the ecosystem. The exchange of carbon dioxide (given off by animals) and oxygen (given off by plants) is actually a process of conservation. The waste of one species becomes **food** for another. When resources become limited, the conservation process becomes more urgent and more visible with an increased need for **recycling**. If conservation efforts fail, **species become endangered** and **extinction** may follow. A species becomes endangered when there is not enough habitat available to support all members of the population. When the habitat vanishes and all members of the population die, the species is considered extinct.

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Text have been retrieved from: http://www.fi.edu/tfi/units/life/habitat/

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Task 3. Design a food chain from 5 or more organisms.

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