 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Use a model to investigate the impact of changes in a population of one organism on others in the ecosystem.



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| --- | --- | --- | --- | --- |
| Know | |  | Apply  2  1 | |
| Ideas | |  |  |  |
| K1 | Organisms in a food web (decomposers, producers and consumers) depend on each other for nutrients. So, a change in one population leads to changes in others. |  | A1 | Describe how a species’ population changes as its predator or prey population changes. |
| A2 | Explain effects of environmental changes and toxic materials on a species’ population. |
| K2 | The population of a species is affected by the number of its predators and prey, disease, pollution and competition between individuals for limited resources such as water and nutrients. |  | A3 | Combine food chains to form a food web. |
| A4 | Explain issues with human food supplies in terms of insect pollinators. |
|  | |  |  |  |
| Facts | |
| K3 | Insects are needed to pollinate food crops. |  |  |  |
|  | |  |  |  |
| Key words | |
| K4 | **Food** **web:** Shows how food chains in an ecosystem are linked. |  |  |  |
| K5 | **Food** **chain:** Part of a food web, starting with a producer, ending with a top predator. |  |  |  |
|  |
| K6 | **Ecosystem:** The living things in a given area, and their non-living environment. |  |  |  |
| K7 | **Environment:** The surrounding air, water, and soil where an organism lives. |  |  |  |
| K8 | **Population:** Group of the same species living in an area. |  |  |  |
| K9 | **Producer:** Green plant or algae that makes its own food using sunlight. |  |  |  |
| K10 | **Consumer:** Animal that eats other animals or plants. |  |  |  |
| K11 | **Decomposer:** Organism that breaks down dead plant and animal material so nutrients can be recycled back to the soil or water. |  |  |  |
| 3 | Extend |  |  |  |
| E1 | Suggest what might happen when an unfamiliar species is introduced into a food web. |  |  |  |
| E2 | Develop an argument about how toxic substances can accumulate in human food. |  |  |  |
| E3 | Make a deduction based on data about what caused a change in the population of a species. |  |  |  |
| E4 |  |  |  |  |
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|  |  |  |  |  |
| E5 |  |  |  |  |
|  |  |  |  |  |
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