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| **Know the facts** | | **Key words** | |
| 1 | Natural selection is a theory that explains how species evolve and why extinction occurs. | 1 | **Population**: Group of organisms of the same kind living in the same place. | |
| 2. | Biodiversity is vital to maintaining populations. | 2 | **Natural selection:** Process by which species change over time in response to environmental changes and competition for resources. | |
| 3 | Within a species, variation helps against environment changes, avoiding extinction. | 3 | **Extinct**: When no more individuals of a species remain. | |
| 4. | Within an ecosystem, having many different species ensures resources are available for other populations, like humans. | 4 | **Biodiversity**: The variety of living things. It is measured as the differences between individuals of the same species, or the number of different species in an ecosystem. | |
| 5. | A species may become extinct because they have been unable to adapt to changing conditions. | 5 | **Competition**: When two or more living things struggle against each other to get the same resource. | |
| 6. | A lack of biodiversity can affect an ecosystem. | 6 | **Evolution**: Theory that the animal and plant species living today descended from species that existed in the past. | |
| 7 | By preserving biodiversity we can provide useful products and services for humans such as drugs for disease | 7 | **Adaptation:** Characteristic that helps an organism to survive in that environment | |
| 8 | If an organism is not able to change over time due to natural selection their numbers will decrease | 8 | **Interdependence**: the change in one species population affects the population of another. Both populations depend on each other. | |
| 9 | You can inherit characteristics from your parents – this is your DNA | 9 | **Variation**: Difference in characteristics within a species | |
| 10 | DNA is arranged into long strands called chromosomes , Each chromosomes is divided into sections of DNA. | 10 | **Species**: organisms that have lots of characteristics in common , and can mate to produce fertile offspring | |
| 11 | The section of DNA that contain the information to produce a characteristic are called gene. | 11 | **Continuous variation** : a characteristic that can take any value in arrange e,g height. | |
| 12 | All living things have a common ancestor ,through the process of natural selection. | 12 | **Discontinuous variation**: a characteristic than can only have a certain value eg eye colour | |
| 13. |  | 13 | **Gene Bank**: a place where genetic samples from different species are stored | |

**Adaptation and Inheritance**