



Name \_\_\_\_\_

## Design Your Own Animal

**Background Information:** It is the future, the year 3000, and it is now possible for humans to build planets, and genetically engineer or create plants and animals to live on that planet. You are one of the scientists working on the animals, and it is your job to design and create an animal which will be perfectly suited to its environment on this new planet.

**Task:** You need to pick one of the following environments of already created planets and create an animal which is going to be strong and resilient enough to survive in that environment. You need to consider how this animal is going to stay warm or cool, what it is going to eat, how it is going to get its food and water, and how it is going to care for its young to make sure they survive. Your animal must FIT INTO the existing food chain - it cannot be the ultimate predator (the one which can eat everything else and nothing can eat it).

### ENVIRONMENTS

Select 1 of the following:

1: This planet is dark and cold most of the time. It is very mountainous. It rains almost all day. Because of the wet, dark conditions, the only plants that grow well are small mosses and funguses. Animals on this planet include a type of mouse, a nocturnal hunting large cat, fish, and a variety of insects.

2: This planet is dry and hot. Most of the planet is flat. Water is found in underground streams but there is little water on the surface of the planet. Most of the planet's surface is covered in sand, although there are patches of dry grass. When plants can get their roots down into the water table, they grow into tall trees with leaves at the top but not along the trunk. Plants which are not connected to the water table are small and dry, but they are edible. Animals on this planet include insects, a species of birds which roost in the high trees, a sand-colored lizard and a type of rat.

3. This planet is tropical: wet and hot. Most of the planet is covered by rainforest. The planet is very flat. Water collects in large pools and lakes which have water in them all year 'round. A species of poisonous plant grows thickly on the ground. The spines of this plant are poisonous, and any animal which steps on one is sure to die. The vegetation is plentiful, and includes leaves, fruits and nuts. Animals include carnivorous snakes, varieties of insects, monkeys, fish and birds.

4. This planet has a moderate climate. It never gets very hot or very cold, but stays mild all year 'round. It rains for part of the year and the water forms pools and lakes which dry up towards the end of the year and then the planet is very dry. The planet is partly mountainous and partly flat. Vegetation includes tall trees with high leaves and fruit, and a smaller plant which bears nuts. However, these nuts are inside hard shells which need to be removed before the nut can be eaten. Animals include rats and mice which live underground, insects, birds that nest in the tall trees, slow moving mammals which also live in the trees and a species of carnivorous nocturnal wolf.

When you are designing your animal consider the following criteria:

- Size
- What does it eat?
- How will it catch/get food and water?
- How will it keep warm/cool
- Where will it shelter?
- How will it protect/defend itself from attackers?

On a separate piece of paper, you will draw your animal and label it with the criteria found above. Be sure to explain all of the adaptations and how each of the criteria is met.