



BONUS MISSION

Congratulations!

Your hard work has paid off and the zoo is attracting visitors again! Keen to learn from past mistakes, the owners have agreed not to cram too many creatures into the bio-domes. Instead, to maintain the zoo's success, they are constructing a new bio-dome... with TWO new species: Devouros and Space Drones.

It is currently the middle of the Space Year. The zoo has invested in an initial purchase of 1 Devouros.

The zoo doesn't have a lot of money left over, so needs to buy the lowest number of Space Drones that it can.

Using what you know about the two species, can you work out the lowest number of Space Drones that will enable both races to survive over the next ten years?

Create a sustainable population plan for the next ten years to discuss with your fellow zoo experts. You will have to explain WHY your predictions are accurate.





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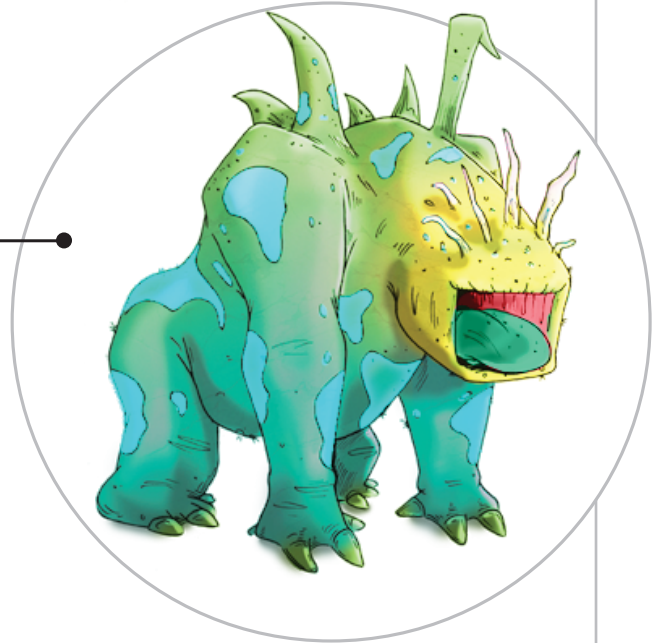


DEVOUROS

A large predator from the Milky Way, the Devouros feeds on Space Drones!

- Each Devouros eats 150 Space Drones per year
- A Devouros does not need a mate to reproduce. It will only lay a new egg at the end of the Space Year if there are at least 150 Space Drones per Devouros

If at the end of a Space Year, there are less than 150 Space Drones per Devouros in total, the excess Devouros will lay down their lives to reduce the strain on the food supply, reducing the Devouros population proportionately.



SPACE DRONES

Mindless creatures that multiply rapidly, Space Drones are a galactic pest – fortunately they are also the food of the Devouros.

- Space Drones feed on microscopic organisms in the atmosphere so there is no need to buy food for them
- A Space Drone population increases rapidly - at the start of the Space Year, during their breeding season, the Space Drone population will double

