**Guidelines for designing the layout of the zoo:**

Instructions:

You and your team are tasked with designing a zoo. The Lego kits that you have represent the animals of the zoo. Each color represents a different animal. The list of color and animals are provided below. Each animal must be included in the design. There are no restrictions on the shape of the animal areas. LEGOs can be placed in any orientation but cannot be stacked.

Dark Grey- Gorillas

Light Grey- Elephants

Blue- Dolphins

White- Polar Bears

Black- Zebras

Yellow- Lions

Guidelines for designing the layout of the zoo:

1. Each animal must be included in the design.

a. Draw the fencing around the animals with a pencil

b. Fences between two animals cannot be touching

1. There must be enough space between all animals and monuments for visitors to navigate the park. A two x two Lego piece must be able to fit between all walkways.

Example:



1. The visitors should be able to see all the animals before they leave the zoo. This means the walkway must share a border with at least one side of each animal area.
2. None of the areas for the animals may touch the monuments on the Zoo grid (pond, visitor center, etc.)
3. The goal of designing the layout is to have the shortest path for the visitors to enter the zoo, see all the animals, and exit the zoo.
4. Every square on the grid paper counts as 1 unit.
5. Visitors can only move up, down, left and right between square units (cannot move diagonally).
6. The owners of the zoo want the “Flow” of the zoo to be focused on “cool factor”.

a. The dolphins must be the first attraction by the entrance

b. The gorillas must be the last attraction before the exit

c. Focus on the arrangement of animals, which animals can be next to each other?

Which can’t?