Predator and Prey Game   Name_____hr__

Predator and Prey relationships are everywhere -- Lions and gazelles, hawks and mice, skunks and larvae, monkeys and termites, sharks and fish, coyotes and rabbits. This game simulates the population changes that occur when such animals are interacting.

Rules:
Large card = predator
Small card = prey
If the large card lands ON a prey it "eats" the prey
After "eating" a prey it is allowed to "reproduce" (one more predator is added)
If the large card misses its prey it "goes hungry" and must die (that predator is removed)
After all predators have tried to "eat" during the round, prey that is still living get to "reproduce" (for example if 7 prey cards remain after the eating time, seven more get added for the next round for a total of 14)

Play the game at least 3 times (until either all predators or prey die, or until 10 rounds) and enter your data in the tables below. The game starts with 10 prey and 3 predators.

GAME1	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10
Predator	3									
Prey	10									

GAME2	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10
Predator	3									
Prey	10									

GAME3	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10
Predator	3									
Prey	10									

Pick a set of data from above (1, 2, or 3) and create a line graph on the back. The x axis should be trial numbers, and the y axis should be number of animals.

<u>Do not forget:</u>
the axis labels,
a title for the graph,
a key that defines the lines,
evenly spaced intervals,
and rulers for neatness

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1. When prey populations increase, what happens to predator populations?

2. When prey populations decrease, what happens to predator populations?

3. If a predator population is growing at a large rate, what happens to the prey population?

4. If a predator population is declining, what happens to the prey population?