



The Scenario

Rice Rabbits come in four colors; blue, yellow, green, red. They love to live in a field of white rice. But, they are also the favorite food of foxes. After hiding 10 Rice Rabbits in the field, the foxes [you] begin to hunt them. After calculating how many Rice Rabbits are left in the field, each of the remaining Rice Rabbits have 4 baby rabbits. After adding the baby rabbits, the foxes go hunting again. The cycle repeats itself as many times as you want.

Inquiry Level - 2

Grade Level – 5-9

Open-Ended Inquiry Questions

Can you predict what will happen to the population of Rice Rabbits in the field?

What actually happens to the population of Rice Rabbits in the field?

Process Skill(s)

Predicting, gathering data, comparing, graphing, analyzing

Instructions

This exercise is based on several classic predator-prey relationship exercises. For simplicity we are only taking the prey population into account. If you choose, you may also track the predator population too. It is important for each round to put in multicoloured baby rabbits (rice-shaped multi-colored sprinkles) for each Rice Rabbit that remains.

For example, if you catch three rabbits then seven remain. That means you add 7×4 or 28 baby rabbits to the field and mix them in. Each hunting round is only 30 seconds. Let the students devise a way of tracking how many Rice Rabbits remain in the field. Continue the hunting-reproduction cycle for 10 times or as many as time allows.

Ask the students what patterns they see. For example, overcrowding means a higher capture rate. Or some Rice Rabbits survive better than others, why?

Curriculum Connections

Ecosystems, food chains, food webs, habitat