Niche Game

Rules:

1. Each group with have 4 students.

Student #1: Species A

Student #2: Species B

Student #3: Species C

Student #4: Timer/data collector/passes out cards/rule enforcer

1. Species A, B and C each need a spoon. The spoon is now your BEAK! DO NOT put the spoon in your mouth.
2. Pass out the **BLUE Species A cards** face down to student #1…DO NOT LOOK AT THEM!
3. Pass out the **GREEN Species B cards** face down to student #2…DO NOT LOOK AT THEM!
4. Pass out the **PINK Species C cards** face down to student #3…DO NOT LOOK AT THEM!
5. Place the bowl of beads in the center.
6. Each round last ONE minute. Student #4 will time each round.
7. Student #4 will be instruct the others to turn over their ROUND 1 cards. DON’T TURN THEM OVER UNTIL YOU ARE TOLD.
	1. Read the information on the card.
	2. Student number 4 will say “GO” and start the timer for one minute.
	3. One by one (starting with Species A), use the spoon to take ONE bead at a time as your card instructs. Continue until time is up or you are unable to collect anymore beads.
	4. After 1 minute, record how many beads are in each cup and if the species survived the winter.
	5. Pour ALL beads back into the center bowl.
	6. Answer the questions for that round before moving to the next round.
	7. Continue this process for rounds 2, 3 and 4.

NICHE Game

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|  | Round 1 | Round 2 | Round 3 | Round 4 |
| Species | A | B | C | A | B | C | A | B | C | A | B | C |
| # of bead’s in cup |  |  |  |  |  |  |  |  |  |  |  |  |
| Survive winter? |  |  |  |  |  |  |  |  |  |  |  |  |

 **Round 1 Questions:**

1. Which 2 species occupied the same niche in this community? How do you know?
2. Why will 2 species not be able to occupy the same niche in a community for very long?

**Round 2 Questions:**

1. What type of symbiotic relationship do A & B have with C? How do you know?

**Round 3 Questions:**

1. What type of relationship did all 3 species share? How do you know?
2. Do these 3 species occupy the same niche? Support your CLAIM with evidence & reasoning. (Use your notes for help.

**Round 4 Questions:**

1. Describe how species B & C show **competitive exclusion**. BE SPECIFIC!
2. What would happen if a new invasive species came into your ecosystem that ate blue & red beads, and was better at collecting food than the native species?