

**Game Layout**

**Canada!**

(V) (W) (X) (Y)

(U) (T) (S)

(O) (P) (Q) (R)

(N) (M) (L)

(H) (I) (J) (K)

(G) (F) (E)

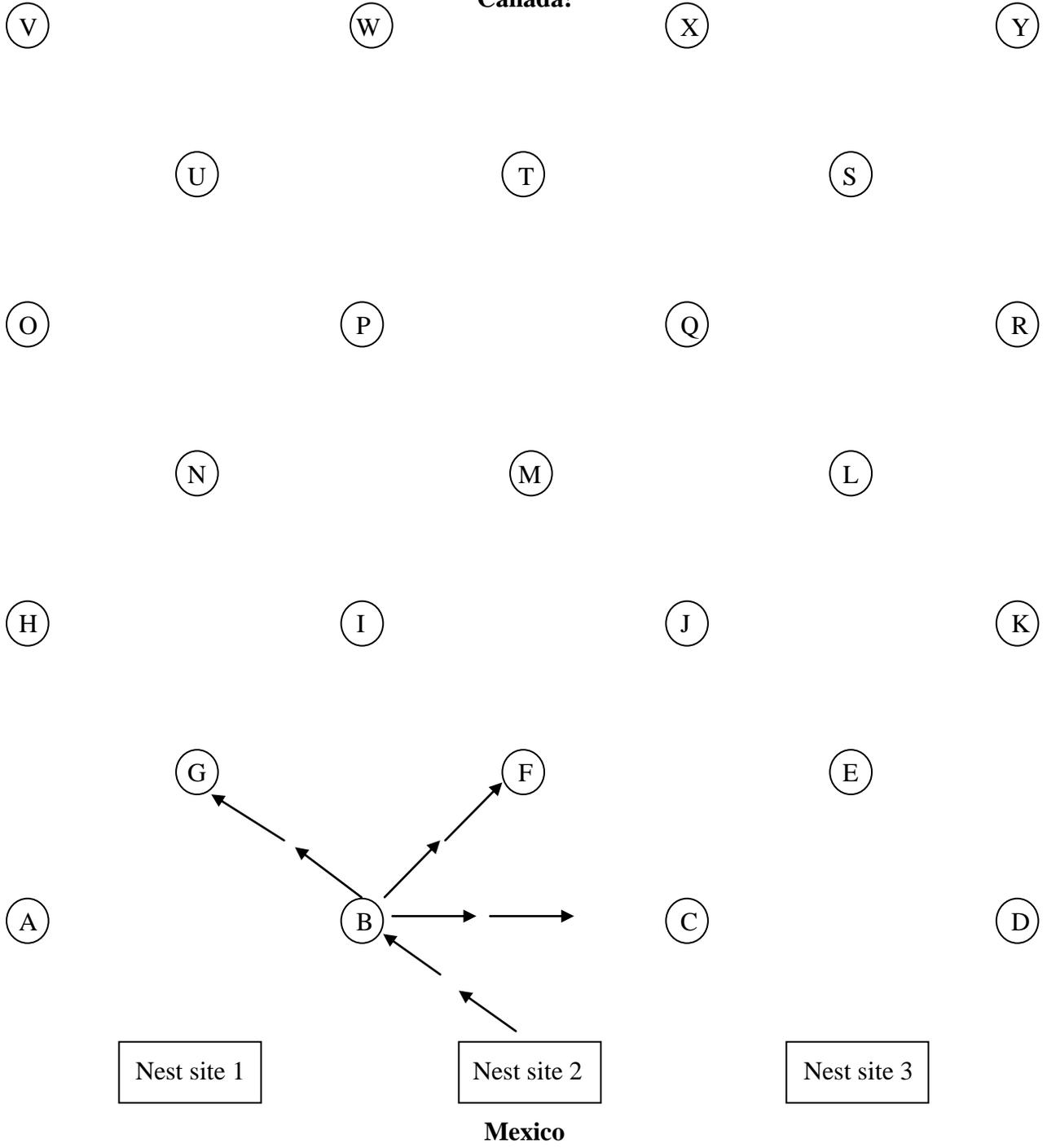
(A) (B) (C) (D)

Nest site 1

Nest site 2

Nest site 3

**Mexico**



### **Teacher Instructions**

1. Lay out the milkweed patches in the follow pattern (the correct placement of each letter matters!). Follow a diamond pattern. Each patch should be two regular sized steps away from two patches diagonally ahead of it (i.e. butterflies on B can reach G or F) but more than two steps away from the nearest patches horizontally or vertically (i.e. butterflies on B can't reach C or I).
2. Students can chose to start at any of the 3 nesting sites in Mexico.
3. Explain to students that they are a monarch family. They need to make it from the nesting site in Mexico, up to Canada, and back to Mexico again before the winter comes. At the end of each turn they need to find a milkweed patch where they can lay their eggs, the caterpillars can hatch, and the butterflies they turn into can continue the migration. Each turn students can only take 2 regular sized steps. If they are unable to find a new milkweed patch in two steps, they die. If the milkweed patch they are on is destroyed, they die. All butterfly families that die are removed from the game.
4. Each turn progresses as follow. The butterfly families take two steps to find a milkweed patch. Then the teacher draws a scenario card and follows the direction on the card. There will be 13 regular turns (enough time to make it to Canada and back if the student is always advancing forward each turn).
5. At the end of the 14<sup>th</sup> turn the students should have reached one of the 3 nesting sites if they survived. Draw one of the 3 final scenario cards and follow the instructions.
6. After the conclusion of the game point out how many butterfly families survived the migration successfully. Have students reflect on all the reasons why the migration was difficult for monarchs. Then brainstorm things we might be able to do to help the monarch population.