Invasive Species

Anticipatory Activity

Set-up:

There are four native species

* Bandersnatch: 2 plastic knives in one hand\*
* Jubjub Bird: two forks in one hand\*
* Mock Turtle: one fork
* Snark: one spoon
* Jabberwocky: binder clip

\* It is important to note that tools can only be held in ONE hand. So holding the two knives will take the dexterity of operating chopsticks. If this is too difficult for particular students, make changes as necessary.

Eating habits:

* Bandersnatch: eats only green and blue pom-poms
* Jubjub Bird: eats only yellow and blue pom-poms
* Mock Turtle: eats only green pom-poms
* Snark: eats only yellow pom-poms
* Jabberwocky: eats anything

Instructions:

* Randomly distribute the pom-poms onto the felt.
* Each of the four native species will have 30 seconds per round to collect food using one hand and their assigned tools
* The native species will play 3 rounds before the invasive (Jabberwock) arrives.
* Play will continue with the Jabberwock now competing for resources for 3-5 more rounds.
* It should be made clear to the Jabberwocks that it is in their benefit to eliminate native species
	+ Their tactics should include selective feeding to knock out other species
		- e.g., eating only white, so the species that can only eat white cannot get enough to reproduce.

Scoring:

* Each species starts off with three lives represented by pennies.
* At the end of the round each species needs 5 pom-poms to survive the round
* For every 3 pom-poms beyond the first 5, the species produces 1 offspring which counts as an extra life.
	+ e.g. after Round 1 the Snark has collected 9 pom-poms, the Snark does not lose a life (penny) this round since he found five. The Snark also gets one additional life (penny) because of his three additional pom-poms. The ninth pom-pom only serves to keep other fish from reproducing.
* Once the species is out of lives he becomes extinct.

Post-activity discussion questions:

 1) Were you able to compete with the other native species for resources necessary to your survival and reproduction?

2) Were you able to compete with the invasive species for resources necessary to your survival and reproduction? Why? What made the Jabberwocky so successful?

3) What could be the consequences of organisms entering an ecosystem that have a competitive advantage over the native species?

Invasive Species

Anticipatory Activity

Rounds 1 - 3

Set-up:

There are four native species

* Bandersnatch: 2 plastic knives in one hand\*
* Jubjub Bird: two forks in one hand\*
* Mock Turtle: one fork
* Snark: one spoon

\* It is important to note that tools can only be held in ONE hand. So holding the two knives will take the dexterity of operating chopsticks. If this is too difficult for particular students, make changes as necessary.

Eating habits:

* Bandersnatch: eats only green and blue pom-poms
* Jubjub Bird: eats only yellow and blue pom-poms
* Mock Turtle: eats only green pom-poms
* Snark: eats only yellow pom-poms

Instructions:

* Randomly distribute the pom-poms onto the felt.
* Each of the four native species will have **30 seconds per round** to collect food **using one hand and their assigned tools**
* The native species will play **3 rounds** before 5th species is introduced.

Scoring:

* Each species starts off with three lives represented by pennies.
* At the end of the round each species needs 5 pom-poms to survive the round
* For every 3 pom-poms beyond the first 5, the species produces 1 offspring which counts as an extra life.
	+ - e.g. after Round 1 the Snark has collected 9 pom-poms, the Snark does not lose a life (penny) this round since he found five. The Snark also gets one additional life (penny) because of his three additional pom-poms. The ninth pom-pom only serves to keep other fish from reproducing.
* Once the species is out of lives he becomes extinct.

Post-activity discussion questions:

 1) Were you able to compete with the other native species for resources necessary to your survival and reproduction?

2) Were you able to compete with the invasive species for resources necessary to your survival and reproduction? Why? What made the Jabberwocky so successful?

3) What could be the consequences of organisms entering an ecosystem that have a competitive advantage over the native species?

Invasive Species

Anticipatory Activity

Rounds 4 – 6-8

Set-up:

There are four native species

* Bandersnatch: 2 plastic knives in one hand\*
* Jubjub Bird: two forks in one hand\*
* Mock Turtle: one fork
* Snark: one spoon
* Jabberwocky: binder clip

\* It is important to note that tools can only be held in ONE hand. So holding the two knives will take the dexterity of operating chopsticks. If this is too difficult for particular students, make changes as necessary.

Eating habits:

* Bandersnatch: eats only green and blue pom-poms
* Jubjub Bird: eats only yellow and blue pom-poms
* Mock Turtle: eats only green pom-poms
* Snark: eats only yellow pom-poms
* Jabberwocky: eats anything

Instructions:

* Randomly distribute the pom-poms onto the felt.
* Each of the four native species will have **30 seconds per round** to **collect food using one hand and their assigned tools**
* The native species will play 3 rounds before the invasive (Jabberwock) arrives.
* **Play will continue with the Jabberwock now competing for resources for 3-5 more rounds**.
	+ **It is to the Jabberwocks** **benefit to eliminate native species**
		- Tactics could include selective feeding to knock out other species
			* e.g., eating only white, so the species that can only eat white cannot get enough to reproduce.

Scoring:

* Each species starts off with three lives represented by pennies.
* At the end of the round each species needs 5 pom-poms to survive the round
* For every 3 pom-poms beyond the first 5, the species produces 1 offspring which counts as an extra life.
	+ e.g. after Round 1 the Snark has collected 9 pom-poms, the Snark does not lose a life (penny) this round since he found five. The Snark also gets one additional life (penny) because of his three additional pom-poms. The ninth pom-pom only serves to keep other fish from reproducing.
* Once the species is out of lives he becomes extinct.

 Post-activity discussion questions:

 1) Were you able to compete with the other native species for resources necessary to your survival and reproduction?

2) Were you able to compete with the invasive species for resources necessary to your survival and reproduction? Why? What made the Jabberwocky so successful?

3) What could be the consequences of organisms entering an ecosystem that have a competitive advantage over the native species?