

Food Chain Game

There are probably dozens of variants of the Animal Game - this version may be one of the simpler versions. In this experiential outdoor game students assume the role of producers, consumer, or decomposers, learn about food webs and chains, and find out that it truly is a jungle out there!

Time Required: 70 to 80 minutes

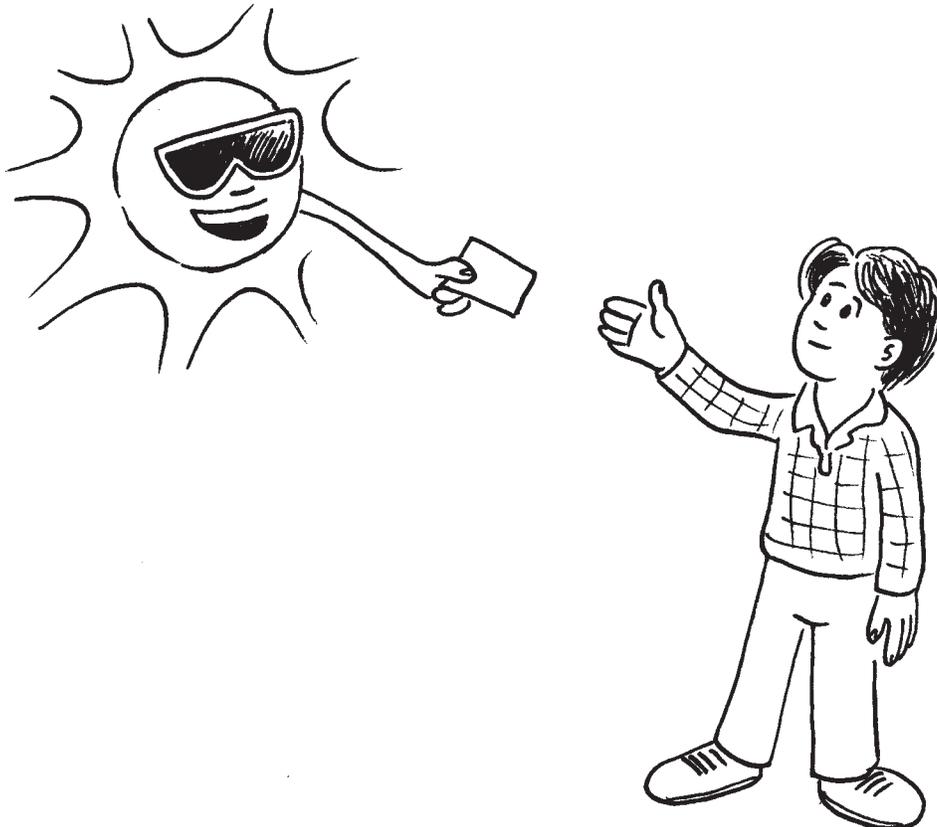
Materials Required: laminated character cards on coloured paper, (see below for numbers).

Instructions:

Tell students that you are going outdoors to play the Animal Game. A flurry of enthusiasm may ensue!

Outdoors, walk students around the game boundaries, pointing out any hazards in the area. Then have students sit and ask them to listen to all of the instructions before beginning the game (due to student excitement level, you may wish to answer questions only at the end).

Introduce the following characters one at a time. Refer to Table 1 as you describe the goals of



each organism (character) and who they chase and are chased by in the game. Show each of the four cards types to the group, and emphasize that they must collect as many cards as possible to survive. Photocopy masters for these four card types are contained on the next page.

After you've described the roles, hand out character cards (table 2 suggests the numbers of different cards you should make). As in most ecosystems, there are far more producers than herbivores, far more herbivores than carnivores, etc. You may wish to punch a hole in each card and insert a stout elastic band, thereby allowing cards to be worn on students' arms (have them attach it above their elbow).

As teacher you will play the role of sun - 'the giver of all life' (!) Rather than having a steadily growing pile of dead students, you can give these students a second lease on life by issuing them another card. You may even experiment with the ecosystem by increasing the number of carnivores and decomposers!

Answer any questions, tell students approximately how long the game will last (try 10-20 minutes, depending on the age group), tell students to listen for your signal that will end the game, and begin! Give the producers a 10 second head start, followed by herbivores, etc.

Discussion:

to begin, ask students to count the cards that they have. You may wish to establish a cutoff point (i.e. any surviving herbivores with less than 5 producer cards is deemed to have died of starvation).

This activity is very rich in that many ecological concepts can be explored with students! Some sample questions to promote discussion are listed below:

- What did you feel when you played the game. Is this how a wild animal might feel?
- What strategies did you use to avoid being caught? Do plants or animals use these strategies?
- What strategies did you use to catch other students? Do plants or animals use these strategies?
- If humans were introduced to this game, what rules would you give them? What about disease? What about famine?

Extension:

Have students write about their experience. What would life be like as a herbivore, etc.?

Table 1: Ecosystems 'characters' and what they do in the game

Character type	goal is to...	chases...	collects...	chased by...
producer (print on green paper)	survive!	no-one	nothing	herbivores and decomposers
herbivore (print on tan paper)	catch producers, avoid carnivores and decomposers	producers	as many producer cards as possible	carnivores and decomposers
carnivore (print on red paper)	catch herbivores, avoid decomposers	herbivores	as many producer possible & herbivore cards as possible	decomposers
decomposer (print on white paper)	catch and 'kill' (decompose) all other characters	all	as many producer, consumer, & decomposer cards as possible	no-one

Table 2: How many game cards should I make?

Character type	% of total cards	for a group of 20, make this many cards:	group of 25 students	group of 30 students
producer (green paper)	70%	$12 + 11 = 23$	$16 + 10 = 26$ **	$20 + 15 = 35$
herbivore (tan paper)	20%	$4 + 3 = 7$	$5 + 4 = 9$	$6 + 5 = 11$
carnivore (red paper)	5%	$2 + 1 = 3$	$2 + 2 = 4$	$2 + 2 = 4$
decomposer (white paper)	5%	2	2	2

** Note: what does $16 + 10 = 24$ mean? The first number (16) refers to cards given out to students before game begins; second number refers to the extra cards you can distribute to 'dead' students (10). The total (26) refers to the number of cards you should photocopy.



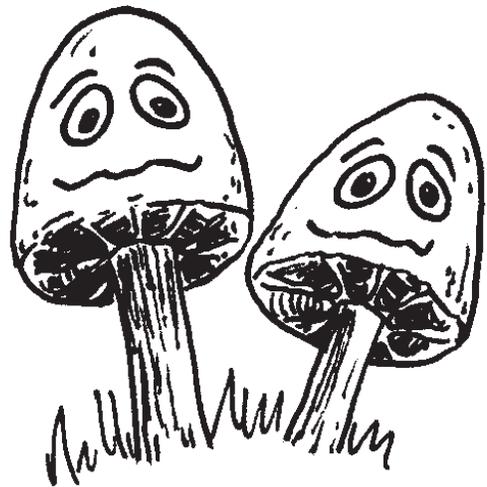
CARNIVORE



CARNIVORE



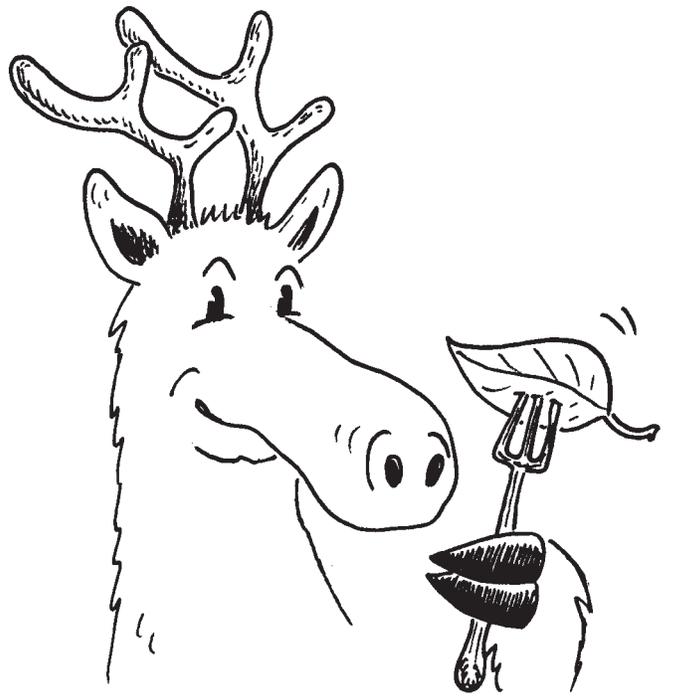
DECOMPOSER



DECOMPOSER



HERBIVORE



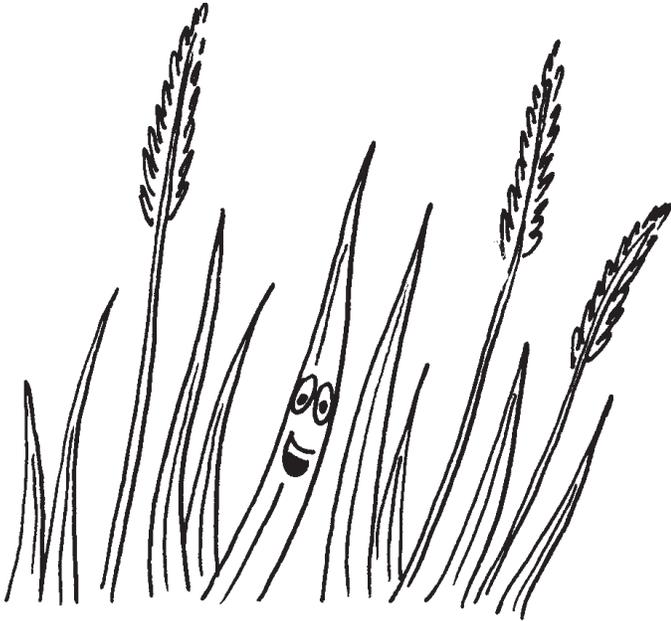
HERBIVORE



HERBIVORE



HERBIVORE



PRODUCER



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