## Lesson Plan: Elk Communication

**Standards: 5th Grade Science A 8.1.3 & .5**

**Objectives: Students will learn:**

* how elk behave and communicate with other elk and why it is important to the herd

**Materials:** worksheet slips (attached) crayons, construction paper

**Vocabulary:** nonverbal communication, posture, animal behavior, courtship, submissive

**Background Information:** “An elk bugle does sound kind of weird – an odd combination of noises in sequence, from a low bellow rapidly rising up to a high, screeching whistle, followed by a series of grunts. This cacophony of noise is music to the ears of elk cows, who gather into harems of 20-30 females.
The bull elk is way too busy, and focused on passing on his genes to future generations, to worry about little things like food and sleep. For the sake of genetic survival, the mature bull elk is constantly on the go – a 700-pound to half-ton Energizer Bunny with antlers and an urgent desire to impregnate his females. While human males have been blessed (or cursed) with instincts and hormones for year-round romance, the bull elk peaks for about a month or two each year – a go-for-broke evolutionary strategy. It is as if the hormonal spigot was suddenly turned from off to wide open. The bugle of the bull elk serves several purposes, according to biologists, including:
–Attracting more cows for his harem;
–Intimidating young bulls who aren’t quite ready for prime time; and
–Announcing to young rivals that they’re invited to take his harem, if they dare” ( http://www.yellowstonepark.com/2007/01/elk-survival/).

**Procedure:**

1. On the Smart Board show the following clip of elk bugling: [http://www.youtube.com/watch?feature=player\_embedded&v=phib36cTLiI#](http://www.youtube.com/watch?feature=player_embedded&v=phib36cTLiI)
2. Ask students to discuss ideas as to why they think elk bugle. (Answer: It is a signal to other males and to females that this elk is defining his territory and claiming his mates.)
3. Talk about nonverbal communication. Let students give examples of their own and have others guess what they are communicating.
4. Next give each student one of the following behaviors:
* Submissive posture
* Fighting posture
* Threatening posture
* Herding posture
* Courtship posture
* Alarmed posture
1. Have students draw a picture reflecting the elk behavior they received and write on the bottom of the illustration what the animal is doing. Next have the students research a fact about elk and write on the back of their drawing.
2. Share their drawings and facts one at a time in front of the class.

**Cut out slips and give one to each student.**

**Elk Behaviors**

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| **Submissive posture** – head and neck lowered, nose stretched out and ears folded back, sometimes while crouching down. Cows use this posture when a bull is courting or herding them around. Small bulls will also act submissive to avoid a costly fight with a larger bull.  |
| **Fighting posture** – standing on hind legs and flailing front hooves with ears laid back. Both bulls and cows may assume this posture when fighting over the best food, bedding areas and other scarce resources.  |
| **Threatening posture** – ears laid back, nostrils flared, upper lip curled, head and neck upright. These signs mean an elk may rise up on its back legs and fight. Cows, calves and bulls without antlers threaten each other this way when they compete for food.  |
| **Herding posture** – ears laid back, antlers tilted back, neck stretched out low, nose tipped up and eyes open wide. A bull will use this posture to let stray cows know they should stick with the group or “harem,” or he might chase after them. Sometimes the bull will yelp and bugle while in this posture. |
| **Courtship posture** – antlers and head held high and slightly forward, tongue sticking out. This is how a bull approaches a cow when trying to attract her during the mating season or rut. Using this posture, an older bull will gently move toward the cow, displaying his antlers to impress while trying not to threaten her.  |
| **Alarmed posture** – head held high, body standing straight and tall, leaning slightly forward, and ears cocked forward or to the side, eyes wide open and nostrils flared. An alarmed elk moves stiffly but is ready to take off in a flash if there is truly danger in the area. Sometimes elk will “bark” sharply when nervous to warn others in the herd. In the early summer, cow elk use the alarm posture and bark to tell their newborn calves to dive for cover. |

Source: Arkansas Game and Fish Commission