

Hare – Lynx Game

Outdoor Activity



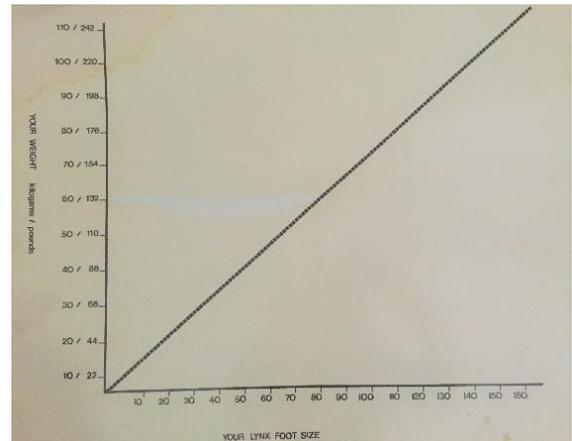
This game can be played with or without snowshoes as a fun interactive way to keep students warm while introducing the concept of predator-prey relationships.

Curriculum: Science, Biology, Physical and Outdoor Education

Materials: Snowshoes (optional)

Instructions:

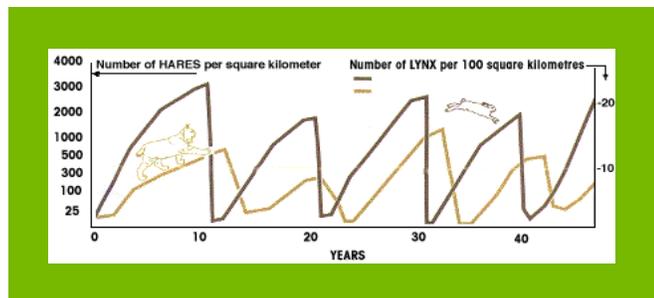
- Take students outside to an open, snowy location.
- If you have access to snowshoes, demo how to put them on.
- In this game students will mimic two iconic animals, the Hare and the Lynx. Challenge students to identify one adaptation both animals have to survive winter - large feet! An average highschool student weighing 60 kilograms would have the equivalent of a size 80 shoe size...if they were a Lynx! Animals with large feet in relationship to their body weight provides more surface area to weight allowing them to travel on top of the snow as opposed to sinking. This saves both animals energy and the opportunity to move quickly in deep snow.



- A playing field must be created by the tracks of your group prior to playing. Instruct students to follow you in a single file, as you walk creating a large circle in the snow. Continue to create a track that intersects the circle twice. If desired you can create a further inner circle. In this game, students can only travel on the tracks you have created.
- Identify two students who will be a predator, the Lynx. Students will recognize them as Lynx as they will run with their hands held up in the air.
- The rest of the students are Snow Shoe Hares, the Lynx's favourite food source.
- In this version of tag, the Lynx will try to tag a Snow Shoe Hare. If tagged, the Snow Shoe hare is "consumed" and reborn as a Lynx and continues play attempting to tag further Hares.
- Play the game a few times; stopping the game when only a few Hares remain living.

Discussion:

The relationship between Snow Shoe Hare and Lynx is a well-documented predator-prey relationship. Show students a copy of the attached graph. Similar to the game, as Lynx numbers increase, Hare numbers eventually crash. In the wild, this boom and bust cycle continues repeatedly



approximately every 10 years. Why does the Lynx population closely follow the hare population? The relationship is complex and has many variables affecting both Lynx and Hare populations including disease, food supply and other predators. As herbivores, Hares consume vegetation and increase in numbers. As more Snow Shoe Hares are born, Lynx population numbers also begin to rise in response to higher availability of food. As Snow Shoe Hares consume vegetation, eventually the availability of abundant nutritious plants decreases resulting in them being more susceptible to malnutrition and disease. This coupled with other predators who opportunistically take advantage of higher Hare numbers results in Snow Shoe Hare populations crashing, followed by a decline in Lynx population numbers. While both the Snow Shoe Hares and Lynx are low and they have fewer off spring, the vegetation is able to rebound setting the stage for the cycle to continue.