\*The following activity was developed by Michigan Technological University

**FROG SURVIVAL GAME or Disappearing Frog Game**

Players in this activity take on the role of frogs trying to survive. In order to survive frogs need:

**Food:** How do frogs get their food? They use their tongue to catch mosquitoes, flies, fish, birds, water insects (algae and aquatic plants at tadpole stage)

**Water:** Clean water for breeding, keeping skin moist, wintering over.

**Shelter:** Places to hide from predators, i.e. burrow into mud, lily pads, grasses)

**Space:** Only a certain density of frogs per pond, need travel corridors between breeding sites and living areas in the forest).

Throughout the game players will try to collect these important aspects of frog lives in order to survive and thrive.

**Materials Needed:**

· Cut 8 1/2 sheets of paper of different color, cut into approx. 3”x3” squares. Plan on 6 squares of each color per participant. Mark specific colors with “D,” “P,” “T,” or “X.”

orange cards (mark ½ with “D”)

blue cards (mark ½ with “P”)

yellow cards (mark ½ with “T”)

green cards (mark ½ with “X”)

Lollipops/suckers with an adhesive pad attached to the wrapper. You can use double sided tape or you can attach Velcro patches to the lollipops and cards. These will serve as a frog’s sticky tongue.

**Directions:**

1) Give each student a lollipop with an adhesive pad.

2) Spread out colored cards on blanket or table top (if using Velcro make sure the cards are laying Velcro side up).

3) Tell the students, “Each of you is a frog. Frogs don’t us their legs to capture food, so you cannot use your hands. Grip the lollipop in your teeth by the stick, and use it to pick up as many paper squares as you can”

4) Allow one or two minutes (depending on class size) for the students to collect the paper cards.

5) EACH FROG MUST HAVE AT LEAST 5 CARDS AND AT LEAST ONE OF EACH COLOR TO SURVIVE!! **(If not, have the player step to the side of the classroom and sit down).**

6)**Turn Orange Food cards over.** Orange cards represent food. If you have an orange card marked with a **D** you’ve just become someone else’s dinner! What eats frogs? (muskrat, heron, snake, fish, turtles, humans, hawks, minks, and otters.) **(Have them step to the side of the classroom and sit down).**

**Turn Green Space Cards over**. Green represents the space you need to survive. If you have a green card marked with a **X** , your puddle was filled in by someone wanting to build a house or shopping center there. **(Have them step to the side of the classroom and sit down).**

**Turn Blue Water Cards over**. Blue represents the water that frogs need. If you have a blue card marked with a **P** your water has become polluted—what pollutants might affect frogs? Fertilizers, pesticides (to kill insects), toxic chemicals, acid rain.... **(Have them step to the side of the classroom and sit down).**

**Turn Yellow Shelter Cards over**. Yellow represents the shelter that frogs need. If you have a yellow card marked with a **T** that means that the tree or bush shading your pond was cut down and all of the water dried up before you could go from the tadpole stage to the adult frog stage..... **(Have them step to the side of the classroom and sit down).**

7) Ask the remaining students which students got at least one card of each color— orange, green, yellow, blue, AND at least five cards with insects? Tell students, “If you are missing any one of these colors, you’ve croaked. You just disappeared.” Have them step to the side and sit down. The remaining frogs SURVIVED!! “How many of you got lucky and survived?” Ask them again what frogs need to survive—food, water, shelter, and space in a certain arrangement

**SUMMARIZE—WHY DID SOME FROGS DIE?**

• Habitat loss due to new house or shopping center in their home pond.

• Poisons/pollution in the environment got into their pond water.

• Got eaten by other animals (predators).

• Shade trees and bushes next to pond were cut down.

**SUMMARIZE—WHY ARE FROGS IMPORTANT?**

**1. Frogs are part of the food chain.**

**2. Frogs are natural insecticide—** without frogs the insect population would be much greater.

(1 cricket frog = 4800 bugs/year). How many bugs could 100 frogs eat?

**3. Frogs are sensitive to pollution (bioindicators) —** their thin permeable skin is sensitive to poor water and air quality that would also affect humans— may be first warning sign for humans.