Buggin' Out
Teacher's Guide

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The Initial View (Introducing the Activity)

The "sticky animal" can be stored in a sealed plastic bag for next year, provided it survives this one! They're durable, but stuff happens! If your "predator" supply runs out quicker than you'd hoped, substitute long rubber bands, cut once. Wrap a small eraser with wide adhesive tape, sticky side out! Wrap the cut rubber band around it, tie it tightly, and fling away! You can do the cutting and labeling or let the kids. The "bugs", math verbs and math signs are photocopy sheets located in the back of the text. Once the game sets are made, you can bag these game pieces for other years! Lamination will preserve your game for many years. You can add, multiply, subtract, or divide with bugs and never call the exterminator!

Take a Deeper View! (More Science)

The number of living things a given **Environment** can support without damage to any member is called its **Carrying Capacity**. An example might be how many cattle can graze in a pasture without killing the grass off! The kids' environment had way too many **Predators** for the number of **Prey**. It's pretty obvious to the kids when they run out of bugs to catch. Unless the number of predator and prey is balanced, they can both die out! Too many lions and not enough zebras and other prey could mean everybody ends up dead! If the number of predators in the game would have diminished or the bugs allowed to "reproduce" the game could have gone on! Even the "winner" is a loser, since there are no more prey for the **Consumers** (another name for a predator). Keep in mind there could be even bigger predators which feed on the smaller predators. This eating and being eaten relationship is called a **Food Chain**! All the various interlocked food chains in an area combine to form a **Food Web**.

More and Bigger Views! (Additional Classroom Ideas)

1. Use different colored bugs spread out on colored cloth. Which ones are caught first?
2. Look up the present world population and how fast it's growing. Investigate how fast important environments like the **Rain Forest** are being cleared for growing food for the exploding human population. Make maps showing population growth around the world.
3. Check with your state's DNR, the game management people. Find out how they decide the number of big game animals that should be harvested by hunting seasons. (That's keeping the predator and prey balance in balance!!!) Find out how much money hunting and fishing license fees and extra excise taxes raise to help all living things in a **Habitat**. (Habitat is like a forest, lake or prairie, the home of living things)
4. Find pictures of different animals. Some can only be prey. The plant-eaters, **Herbivores** are only prey. From there on, the animals are all predators. Set up possible food chains using your pictures. Be logical, the fox isn't going to catch and eat a lion, right?
5. Remind the kids all food chains begin with **Plants**, they're called **Producers**.
6. Look up examples of animals that become **Extinct** because of habitat destruction, poaching, or the removal of prey and/or predators by humans.
7. Allow time for the bugs to "reproduce" and continue the game.
8. Try letting the kids fling for the signs instead of drawing them.
9. Give each kid a "sticky animal". Let them compete for just ***two*** bugs!
10. Make drawings of various animals and plants. Cut them out. With string connect them into a **Food Chain**. Talk about how each food chain the kids make might interact with other food chains! Connect various food chains into a **Food Web**.