Catch Me If You Can....

Summarize the activity. Include what you did (procedures) & learned (conclusions):

The class was divided up into grasshoppers, lizards, and hawks. The grasshoppers started by collecting "producers" (froot loops). Then, the lizards hunted the grasshoppers. Finally, the hawks hunted the lizards. Any organism that didn't have enough "food" or was "caught" at the end of each round was "dead."

Data:

Place the names of the organisms involved in the activity into the correct spot in the table.

You should include **the froot loops, grasshoppers, lizards, and hawks!**

Producer	Herbivore	Carnivore
froot loops	grasshoppers	lizards
		hawks

NOW, Compare the differences between the columns (How do producers, herbivores, and carnivores differ?) Producers get their energy from the sun. The grasshoppers eat producers (plants) for energy. Lizards eat grasshoppers for energy, and hawks eat lizards for energy.

THEN, compare organisms in the same column. How are they the same or different?

- Hawks and lizards are both carnivores. They are both consumers.
- Lizards are secondary consumers. Hawks are tertiary consumers.

Record the number or animals still alive at the end of the activity. Tell if each animal is a herbivore, carnivore, omnivore in this activity.

Grasshoppers: _____
Lizards: _____
Hawks: _____

} Varies by class

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Conclusions:

1. Why did we have to start with more grasshoppers than lizards?

If there were fewer grasshoppers, then the lizards would starve. The grasshoppers are <u>below</u> the lizards on the energy pyramid. Therefore, they have more biomass (more of them).

2. Why doesn't anything eat the hawks?

They are the tertiary consumers and the top of the food chain/energy pyramid.

3. What effect does energy transfer (10%) have on the length of a food chain?

Energy transfer limits the length of the food chain. The further you go up/along the food chain, the less energy the animal gets.

4. What would happen to the "dead" grasshoppers?

Eaten-They would transfer 10% of their "energy" to the lizard.

The ones that starved to death would decompose.

5. Which food source (producers or consumers) would provide more energy for an omnivore?

Producers because there are fewer energy transfers. (They are lower on the energy pyramid)

6. SUMMARIZE what you learned about how energy gets transferred from one organism to another through the food chain.

- Producers transfer 10% of their energy to the primary consumers. Primary consumers do the same to what eats them (secondary consumers). Secondary consumers transfer 10% to tertiary consumers.
- The amount of energy decreases by 10% at each trophic level (levels of energy pyramid).