Catch Me If You Can….

GOAL:
Demonstrate how energy is passed through a food chain.

ORGANIZATION:
Class of 30 = 20 grasshoppers
7 lizards (with pinnies)
3 hawks (with party hats)
**ALL students need a bag!

OUTSIDE:

- All grasshoppers line up on north side of field facing south (Chandler Heights).
- All lizards spread out & line up BEHIND the grasshoppers.
- All hawks spread out & line up BEHIND lizards.

1. Grasshoppers given 2 "predator-free" minutes to "eat". Pick up all the fruit loops & place it in your bag.
2. Lizards released to "eat". Given 2 "predator-free" minutes to eat grasshoppers. Gently tag & link arms with grasshoppers.
    a. ***STOP! When you hear the whistle blow twice, IMMEDIATELY stop where you are!***
    b. ***Grasshoppers sit if have less than 10 pieces of food (you have starved!)***
    c. ***Grasshoppers sit if tagged by lizards (you've been eaten!) & give them 10% of your food.***

3. Hawks released. Given 2 minutes to "eat" lizards by tagging and linking arms.
    a. ***STOP! When you hear the whistle blow twice, IMMEDIATELY stop where you are!***
    b. ***Grasshoppers sit if have less than 10 pieces of food (you have starved!)***
    c. ***Grasshoppers sit if tagged by lizards & give them 10% of your food.***
    d. ***Lizards sit if have less than 10 pieces of food (you have starved!)***
    e. ***Lizards sit if tagged by la hawk & give them 10% of your food***
    f. ***Hawks sit if less than 3 pieces of food (you have starved!)***

Return inside to discuss & wrap up!

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Name:

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

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

NOW, Compare the differences between the columns (How do producers, herbivores, and carnivores differ?)

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

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: _____

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Conclusions:

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

2. Why doesn't anything eat the hawks?

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

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

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

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