



# **Painted Lady Butterfly**

Upper Elementary

Written by Jackie Mattice

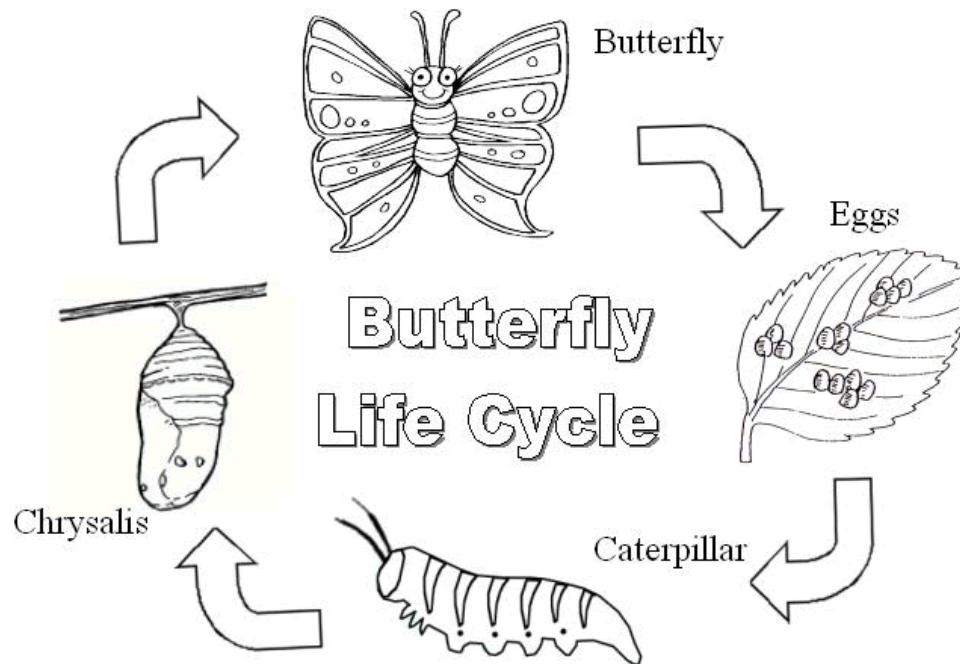
Hays County Master Naturalist

**Let's have a show of hands for the people who have raised butterflies before**



Tell me about your experiences while I write it on the board.

# Did we get all the major steps?



# Is a butterfly a plant or an animal?



How do you know?

# **Animals can be divided into two main groups**

Vertebrates



Invertebrates



**Which group are you in?**

# Butterflies belong to the Invertebrates group Insecta

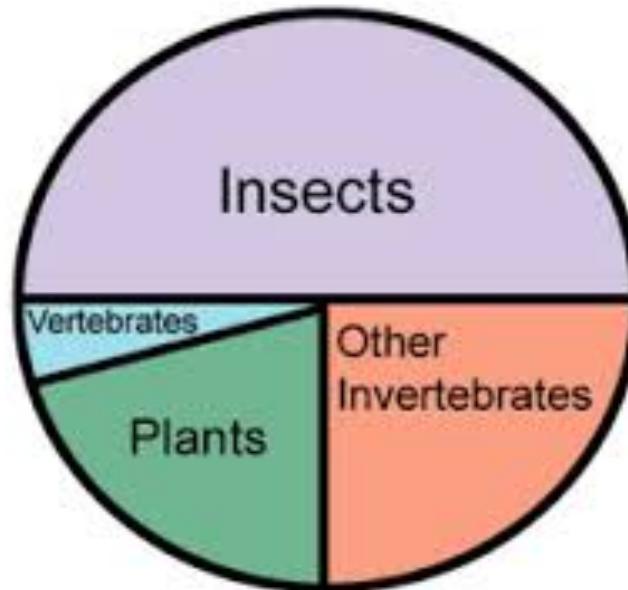


Chart of relative number of living organisms

# What do you know about Insects?



What characteristics do all insects have?

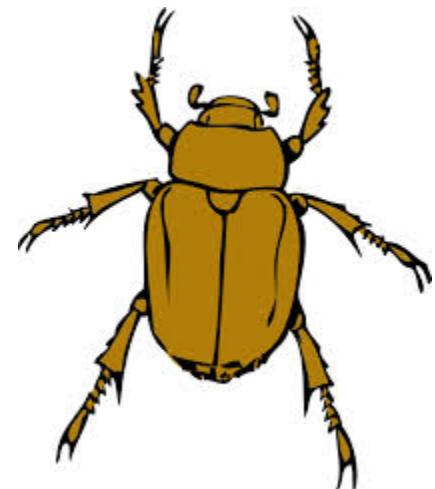
# Major Insect Characteristics

Six legs

Head, thorax and abdomen

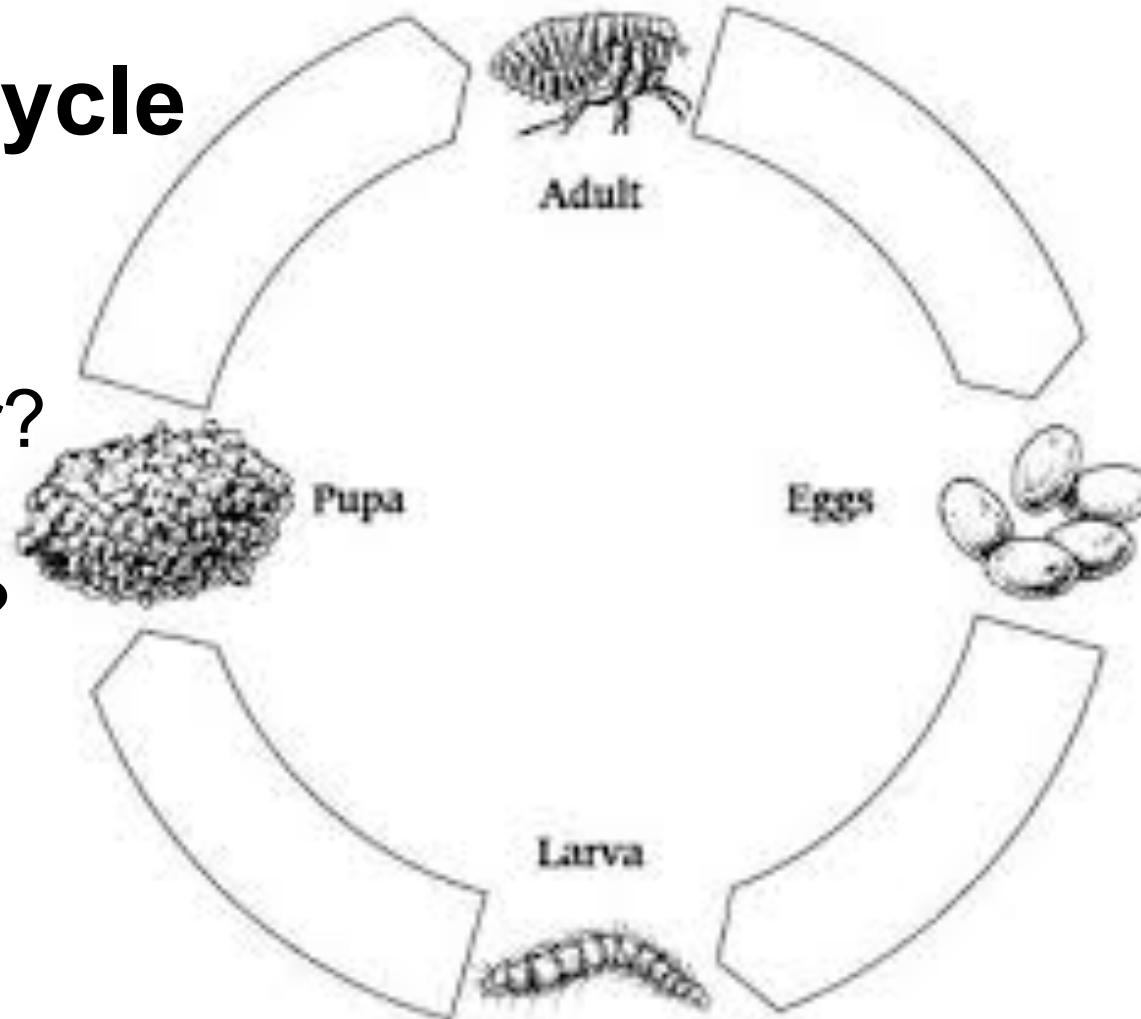
Antennae

Exoskeleton



# Complete life cycle of Insect

Where is caterpillar?



Where is chrysalis?

What is a cocoon?

# Eggs





WEB formed by painted lady  
caterpillar

# What is the job of the larvae?

Eat

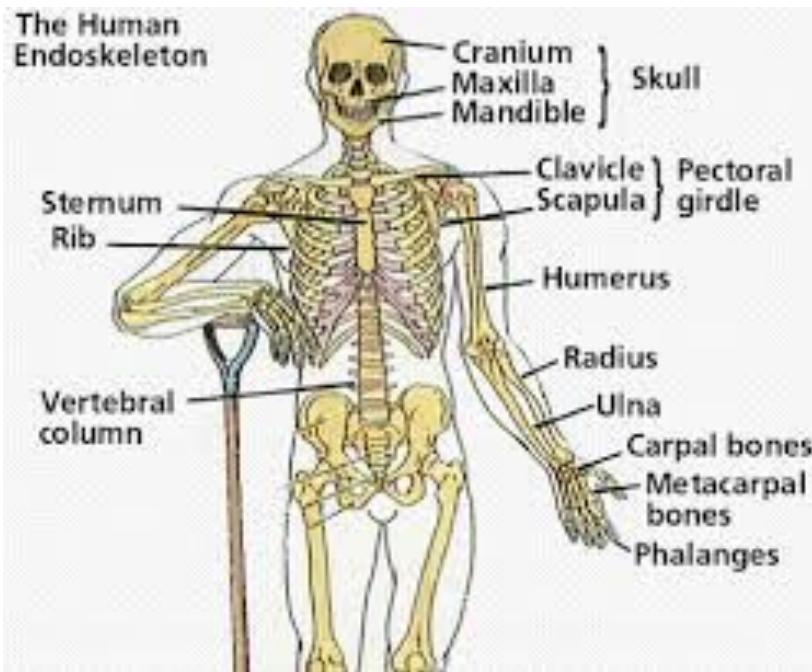
Grow

Poop



# Skeleton types

## Endoskeleton



## Exoskeleton need to molt



# Instars

The Painted Lady goes through 5 instars before it pupates.

The caterpillar will shed its exoskeleton 5 times.

If you look carefully you might see the tan flakes of exoskeleton in the plastic cup.

# FRASS

Tell me again the job  
of the caterpillar.

What are those dark  
blobs?

Can you see them in  
the plastic cups?



Look carefully with a magnifying lens  
and you may see:

Web

instar exoskeleton

frass



# last instar “J” shape

This caterpillar is getting ready to pupate

It will become a chrysalis



# **Slowly it will form a hard covering**

This is the  
Chrysalis

Remember to mist  
your Chrysalis



Metamorphosis  
is the process by  
which the caterpillar  
turns into a  
butterfly





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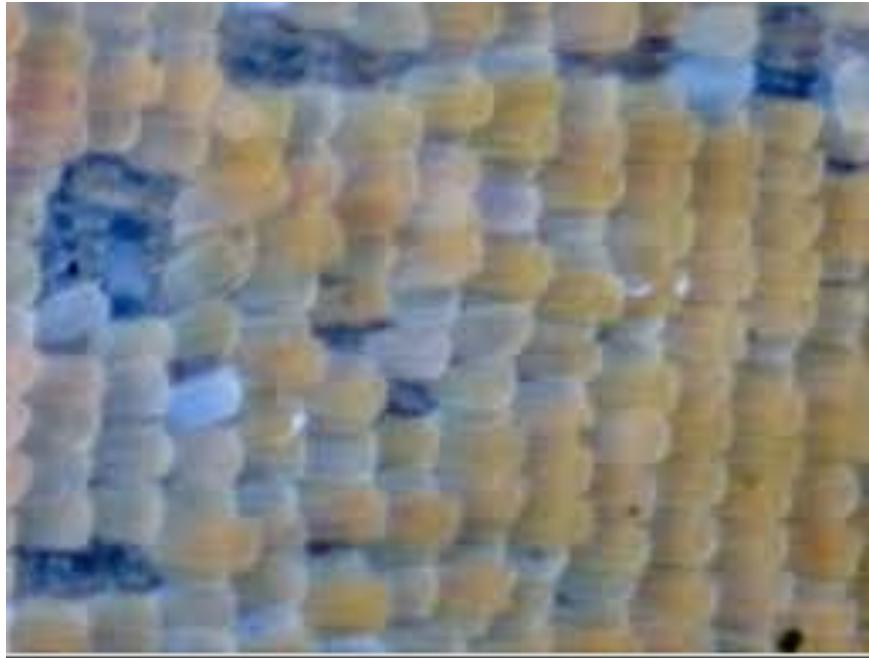
Adults eat nectar and fruit

proboscis

How are butterflies  
helpful  
to plants?

# Do not mist the adult butterfly

They have  
scales on  
their wings



# Review. Now it is your turn

The words are mixed up for your enjoyment.

Draw the butterfly life cycle and include all 10 terms:

chrysalis

larvae

instars

pupae

eggs

metamorphosis

adult

frass

caterpillar

“J” shape



Who ate this leaf?

# Caterpillars eat larvae food

Can we have butterflies without eaten leaves?

Adult butterflies eat different foods

Do all the caterpillars  
survive?

List causes on the board

# Predators



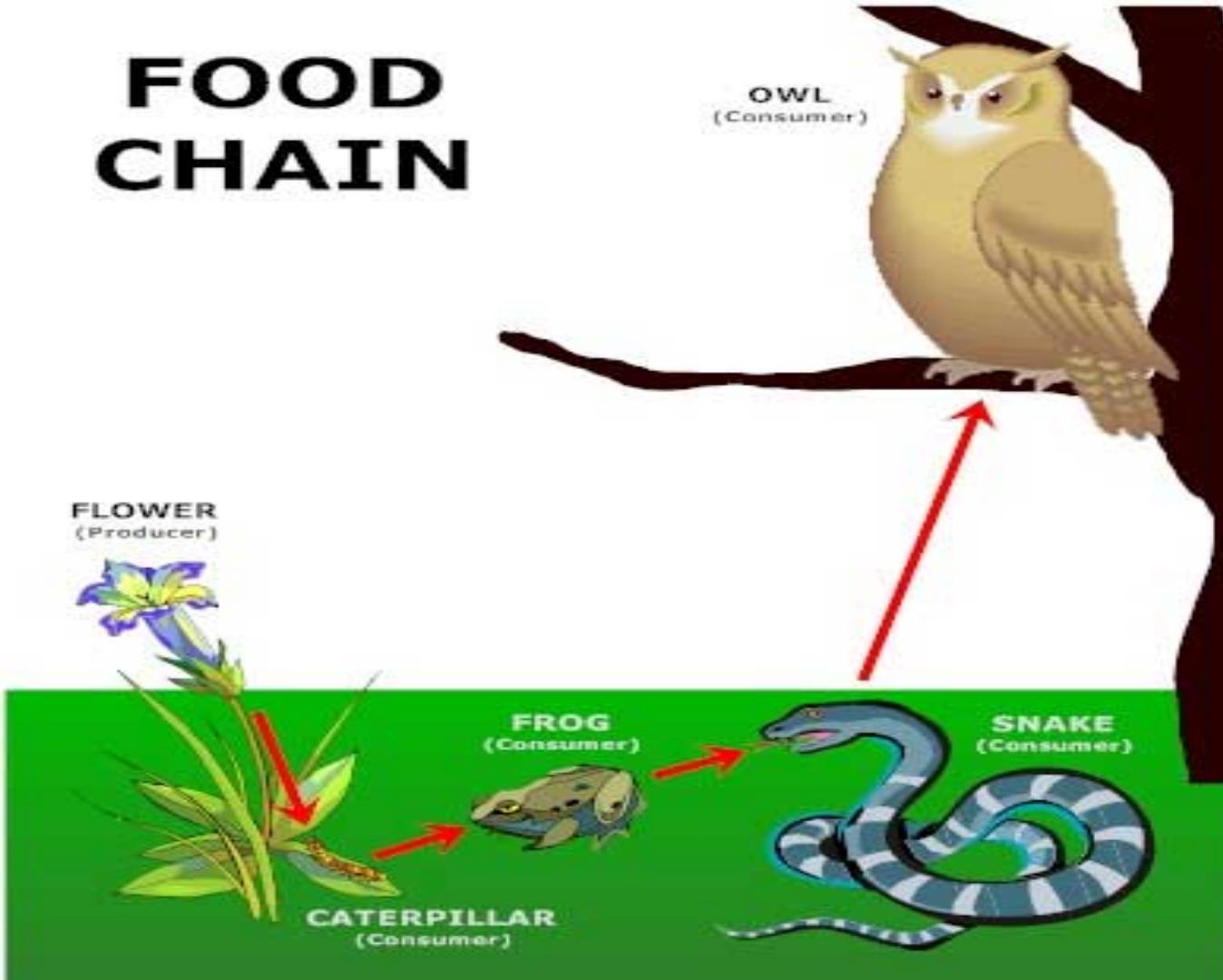
# Parasites



# Pesticides

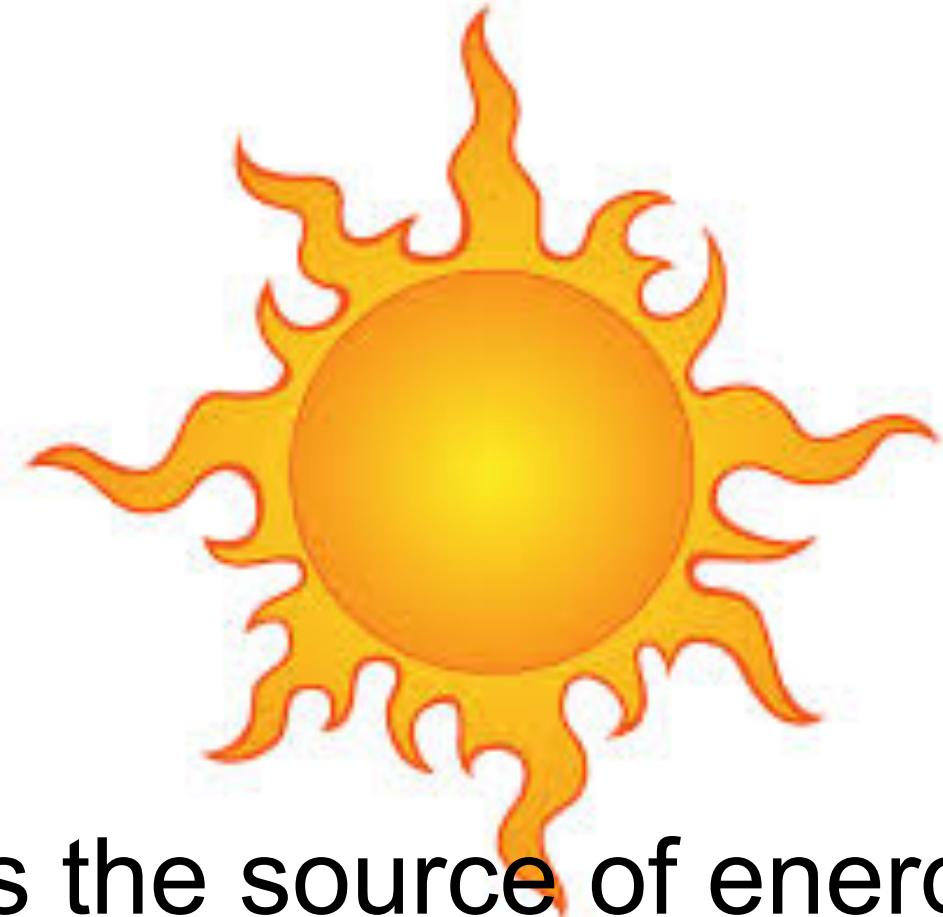


# FOOD CHAIN

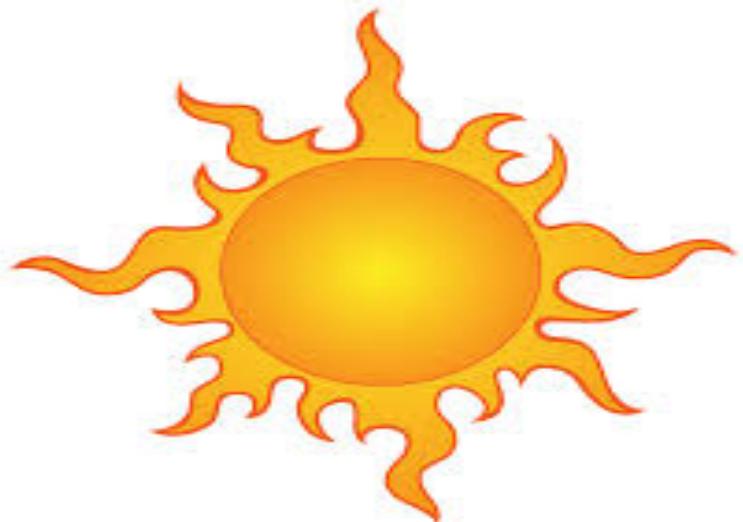


Something big is missing from that picture

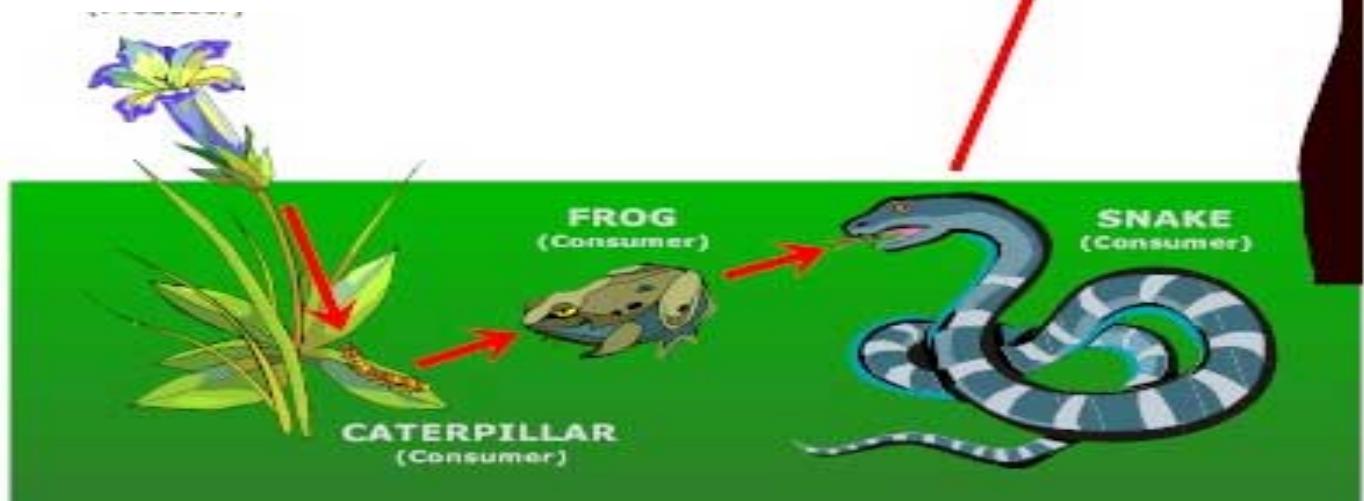
Where is the plant getting it's energy?

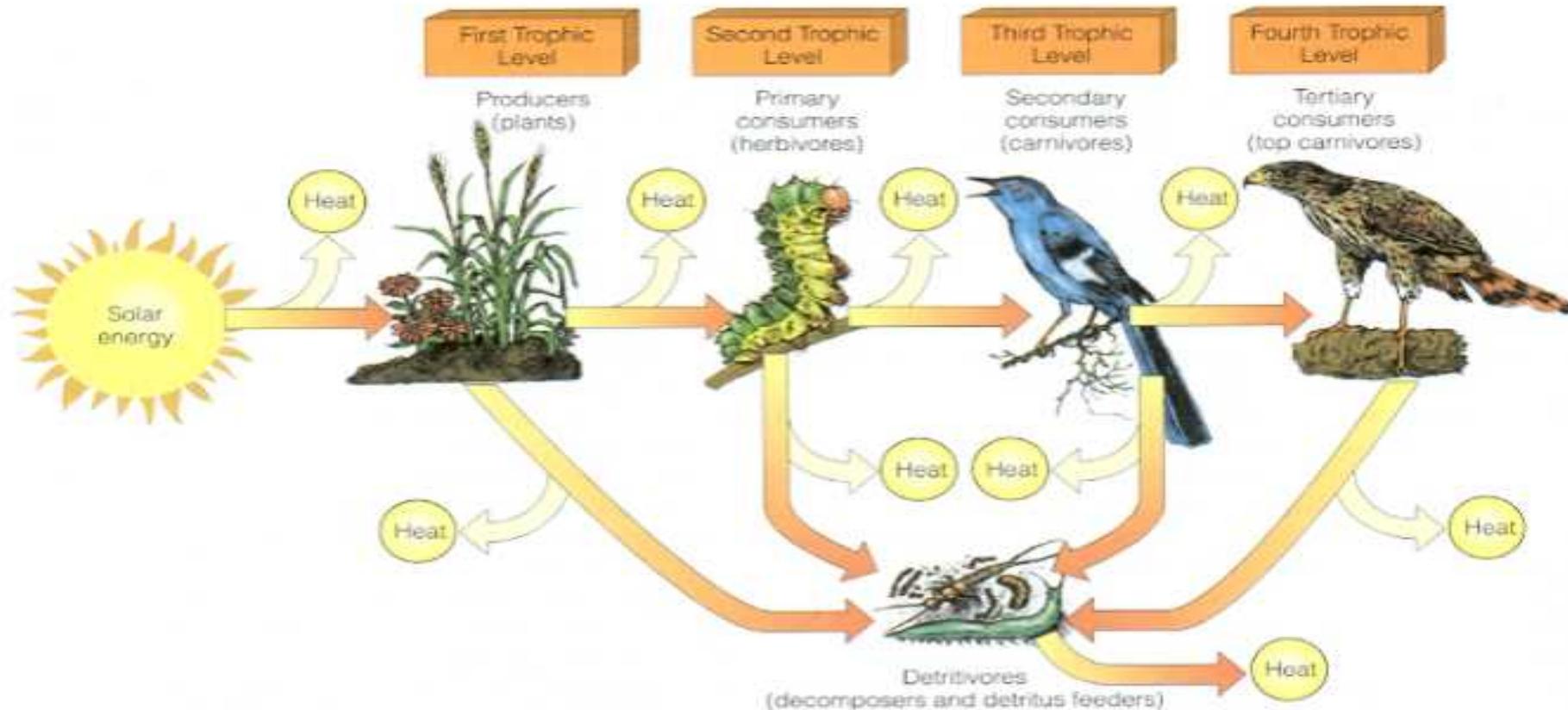


The Sun is the source of energy for all of the plants and thus all animals.



OWL  
(Consumer)





**Figure 5-16** Conceptual model of a food-chain. The arrows show how chemical energy in food flows through various trophic levels or energy transfers; most of the energy is degraded to heat in accordance with the second law of energy. Food chains rarely have more than four trophic levels.

When pesticides are put on the plants  
the animals are affected as well.

Name two ways the pesticides affect the animals.

# Using pesticides could

reduce the food supply for secondary  
consuming animals

or

possibly pass poisons on to  
animals up the food chain

Now you can complete the food chain worksheet.

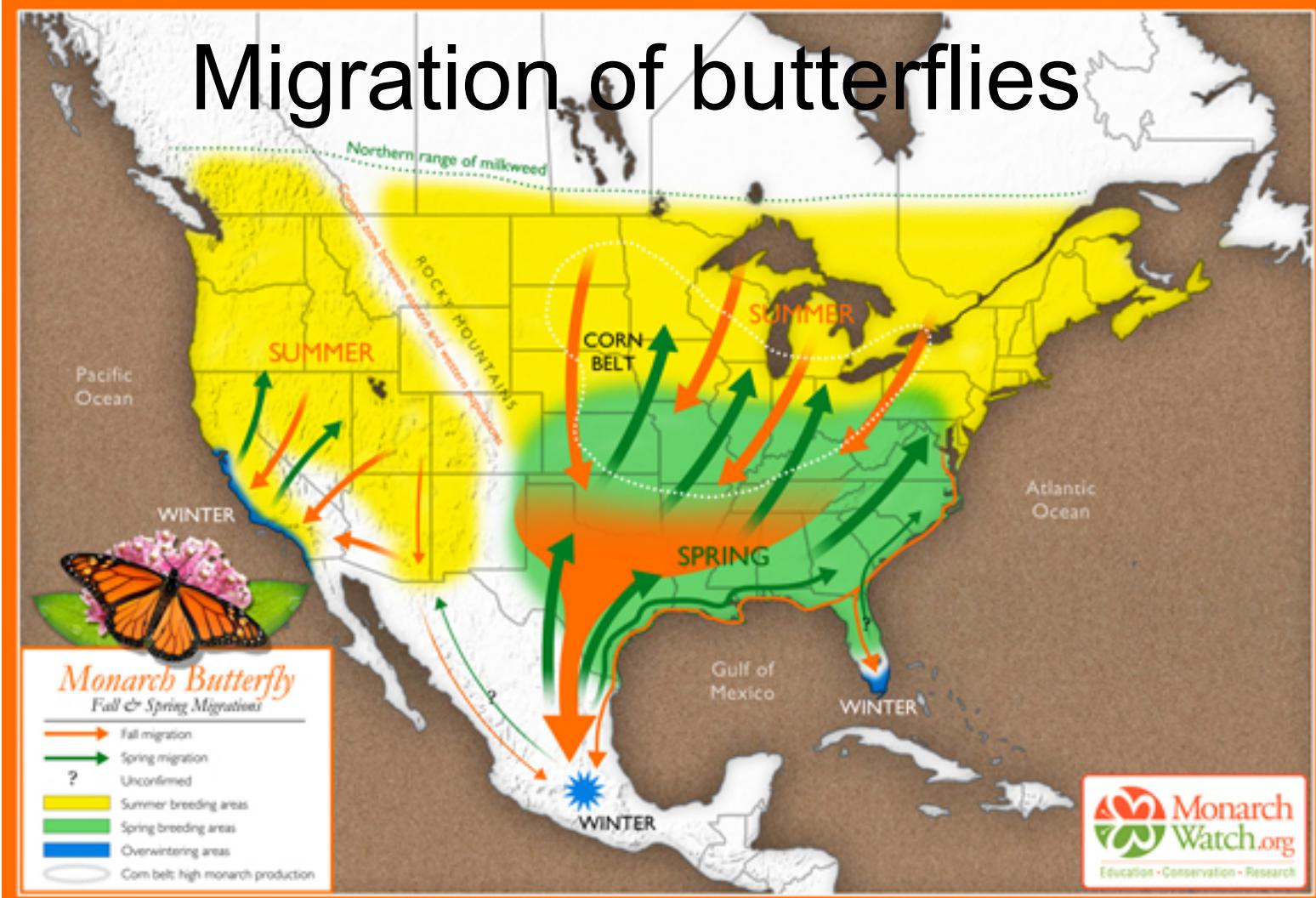
# Additional information

Painted Ladies migrate, but not every year  
or on a definite route



Painted ladies are also found in Europe and  
Africa

# Migration of butterflies



# Monarch Butterfly

What is its larvae food?





(a) Blue jay eating monarch



(b) Vomiting reaction

Alkaloids in milkweed make the butterfly toxic.



Mimicry protects other butterflies from predation