

Michigan Farm Bureau Ag in the Classroom – Connections to Michigan Content Standards

2nd GRADE LESSON – “Honey Bees, Chickens and Cows...OH My” ***Understand animals and the products they produce.*** ***Michigan Farm Bureau Promotion and Education Committee***

This lesson meets the following science content standards for the lower elementary level:

Content Standard 1: Construct New Scientific and Personal Knowledge

- 1-1: Generate reasonable questions about the world based on observation.
- 1-2: Develop solutions to unfamiliar problems through reasoning, observation, and/or experiment.

Content Standard 2: Reflect on Nature, Adequacy and Connections Across Scientific Knowledge

- 1-1: Develop an awareness of the need for evidence in making decisions scientifically.
- 1-2: Show how science concepts can be interpreted through creative expression such as language arts and fine arts.

Content Standard 3: Use Scientific Knowledge from the Life Sciences in Real-World Contexts

- 2-1: Compare and classify familiar organisms on the basis of observable physical characteristics.

Content Standard 4: Use Scientific Knowledge from the Physical Sciences in Real-World Contexts

- 1-3: Identify properties of materials, which make them useful.

“Honey Bees, Chickens and Cows...OH My”
Understand animals and the products they produce.

Second Grade Lesson
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Presented by: Michigan Farm Bureau Volunteers

Introductions / Welcome
(2-3 Minutes)

Introduce yourself and give an overview of your farm.

How many of you live on a farm?
How many of you have a grandparent on a farm?
Why are farmers important?

How many farm animals can you name?
(Cow, pigs, lambs, horses, chickens, ducks, etc)

Which of these animals are alike in some way?

When scientists classify animals they put them into groups based on characteristics like how many legs they have or if they have hair.

Today, we’re going to look at a few of the groups in which they classify farm animals.

We have chosen a cow to represent a mammal.

What are the characteristics of most mammals?

Mammals – hair, they produce milk to feed their young, live births, hooves.

Show large pictures of cow, chicken and bee.

Characteristics
(5 minutes)

**Put up (3)
Category Posters
around room/on
board.**

**Pass out
characteristic
slips. They will
attach with Velcro.**

Matching characteristics
(15 minutes)

We have chosen a chicken to represent a bird.
What are the characteristics of most birds?
Birds – wings, feathers, beaks, lay eggs.

We have chosen a honey bee to represent an insect.
What are the characteristics of most insects?
Insects – 3 body parts (head, thorax, abdomen), antennae, 6 legs, pollinate.

What is pollination?
Pollination – when a bee moves (dust) pollen from the stamen (male part) to the pistil (female part) of a plant.

Why is pollination important to farmers?
Pollination is important because honey bees pollinate orchards to produce apples and cherries.

Now we are going to pass out a characteristic slip to each of you. What you need to do is see if you can match the characteristic to the right animal (have the students work in pairs). Some characteristics could match more than one animal but it has to be a characteristic of every animal in the category. For example all birds have wings but not all insects have wings.

Review the list of words and have the students stick their characteristics on the corresponding poster in small groups.

**Pass out lab sheet
1**

**Hang up the
products
posters.**

Animal products
(15 minutes)

**Products out of
"The Bag"
(yogurt, butter,
ice cream,
cottage cheese).**

**Pass out the
supplies for
treats.**

**1. Have students
wash hands.**

Review the lab sheet having students connect the characteristic to the right animal (Walk posters around the room).

Farmers are more concerned with what comes from an animal than what class it belongs to. We refer to the different types of food that come from an animal as products. There are lots of products that come from animals, probably many that you don't know.

Let's take dairy cows for example. **How many products can you think of that come from dairy cows?** I have several products in this bag. How many can you guess?

What do most of these products have in common? (*They all originate from milk*) Each day a dairy cow produces enough milk to fill 120 ½ pint cartons. **Do we eat products from other animals too? Like What? Do we eat products from plants? Of course (Give examples – bread made from wheat)**

Let's look at these 3 products – cheese, crackers and meat – Where do they come from? (Dairy, Beef/Dairy Cow, Wheat)

Let's make a snack to share that is made from a couple of products.

Hang up by-products poster.

Show by-products bag: insulin bottle, leather, wool, feathers, paint brush, glue, candle, hand lotion.

Pass out lab sheet # 2 with stickers

Animal by-products

By-product activity (15 minutes)

Each of you needs to wash your hands with the cloth coming around. Then each of you will receive a napkin, 2 crackers, a slice of cheese and a slice of sausage to make a sandwich.

We are going to continue as you enjoy your snack.

Not all things from animals are products to eat. Other materials called by-products are important too.

What are by-products? (*Parts of an animal, other than foods, which are used to create additional products.*)

Show by-products bag.

Some that you may not know are?
(*Football, brushes, heart valves, glue, etc*)

So you've learned about many of the different products and by-products from farm animals as well as the different classification of animals.

Now we're going to do one more activity about what we've learned.

We're passing around stickers of products, and by-products from five different animals, which you will find on the lab sheet.

You are going to stick the product or by-product next to the animal it came from.

Do one example together with the class – Pick a product or by-product and ask where it goes.

Review Answers – Have students read answers from their animal wheels.

Conclusion
(5 minutes)

So far today, we have learned about three different types of animals – **What are they?** (*Mammals, Birds and Insects.*)

Can you name a few characteristics of each?

It's important for farmers to take care of their animals. They need to feed them carefully to keep them clean and dry and to keep them healthy. Farmers care about their animals. They feed them special diets and ensure they are in a safe environment to produce safe products and by-products for each of you. When you get home from school today and open your refrigerator or throw your football remember to appreciate a farmer for safely producing that product for you to enjoy.

You can also help ensure your food products stay safe by keeping cold food refrigerated and properly cooking all foods.

Together, we can make sure that people have a safe and healthy food supply.

“Honey Bees, Chickens and Cows...Oh My”

Material list

- | | | | | | | | | | |
|--------------|--|--------------|-----------------|----------|-------|-----------|--------------|-------|---------|
| 1 | Large picture of each animal <ul style="list-style-type: none"> • Honey Bee • Chicken • Cow | | | | | | | | |
| 1 set | Animal characteristic cards
(12 characteristics) | | | | | | | | |
| 70 | Copies of Lab Sheet #1 – Characteristic sheet | | | | | | | | |
| 70 | Copies of Lab Sheet #2 – Pie chart of animals | | | | | | | | |
| 70 | Sets of animal product stickers – Avery Labels # 5167 | | | | | | | | |
| 1 | Dairy Products Bag <ul style="list-style-type: none"> • Yogurt • Milk • Ice Cream • Cheese • Butter • Cottage Cheese | | | | | | | | |
| 2 | Package of slice cheese | | | | | | | | |
| 2 | Box Crackers | | | | | | | | |
| 70 | Slices of Sausage | | | | | | | | |
| 1 | Animal products poster | | | | | | | | |
| 1 | Animal by-products poster | | | | | | | | |
| 1 | Animal by-products bag | | | | | | | | |
| | <table border="0"> <tr> <td>-Hand lotion</td> <td>-Insulin bottle</td> </tr> <tr> <td>-Leather</td> <td>-Wool</td> </tr> <tr> <td>-Feathers</td> <td>-Paint brush</td> </tr> <tr> <td>-Glue</td> <td>-Candle</td> </tr> </table> | -Hand lotion | -Insulin bottle | -Leather | -Wool | -Feathers | -Paint brush | -Glue | -Candle |
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| -Leather | -Wool | | | | | | | | |
| -Feathers | -Paint brush | | | | | | | | |
| -Glue | -Candle | | | | | | | | |
| 1 | Roll of masking tape | | | | | | | | |
| 1 | Box of plastic gloves | | | | | | | | |
| 1 | Package of napkins | | | | | | | | |

Hair

Produce Milk

**Give birth
to live young**

Wings

Feathers

Beaks

Lay eggs

3 body parts

Antennae

6 legs

Pollinate

Hooves

Honey Bee

Insects

Cow

Mammals

Chicken Birds

NAME _____

2nd Grade
Lab Sheet #1

Cows/Mammals

hair

6 legs

Chickens/Birds

feathers

hooves

antennae

Honey Bee/Insect

beaks

produce milk

pollinate

lay eggs

EGGS
GLUE
WOOL
HONEY
CHEESE
CANDLES
INSULIN
PIGSKIN
FOOTBALL
FEATHERS
ICE CREAM
PORK CHOPS
HAMBURGERS
HAND LOTION
POLLINATION
CHICKEN NUGGETS

PIGSKIN
FOOTBALL
ICE CREAM
CANDLES
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FOOTBALL
ICE CREAM
PORK CHOPS
POLLINATION
HAMBURGERS

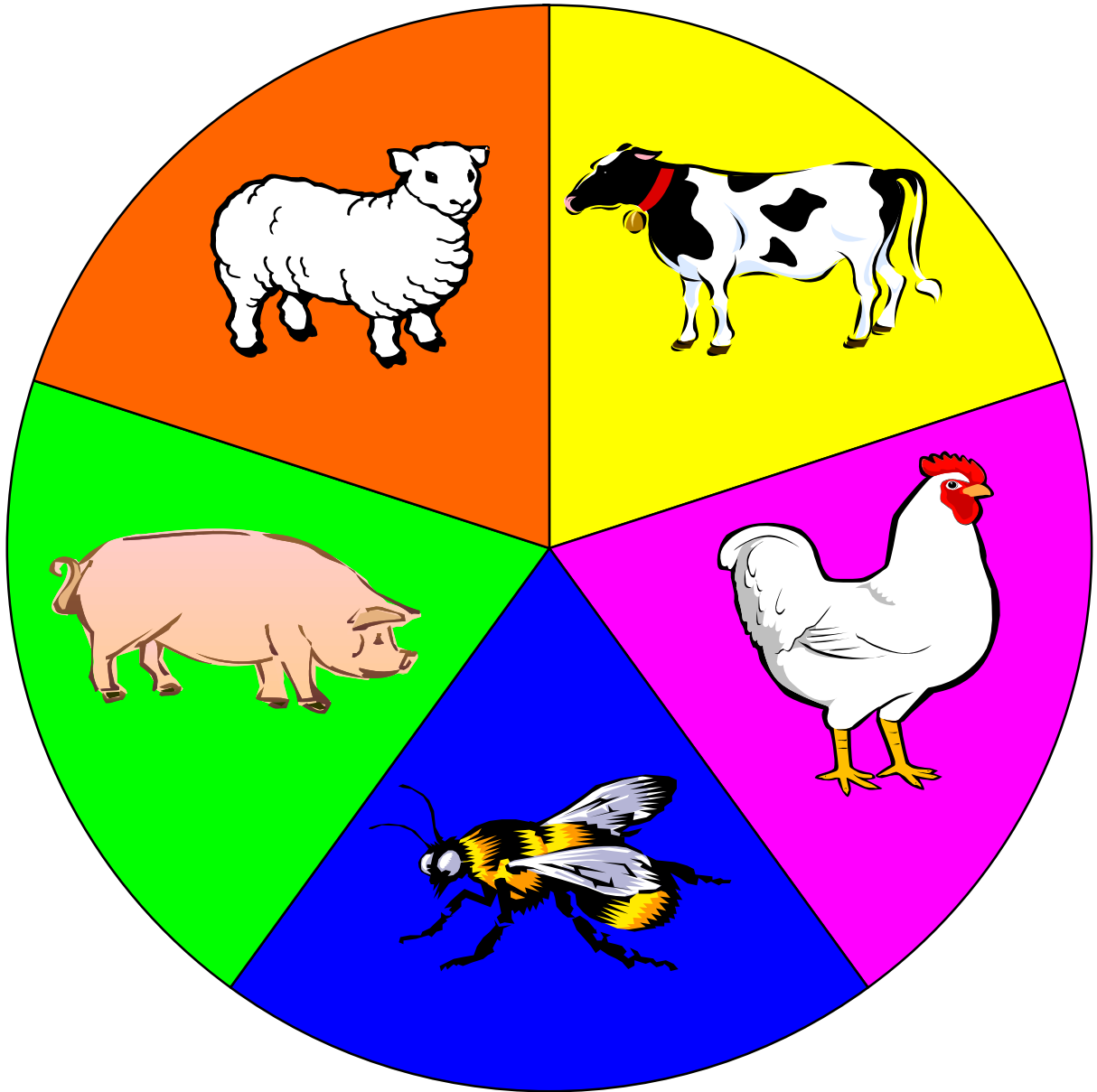
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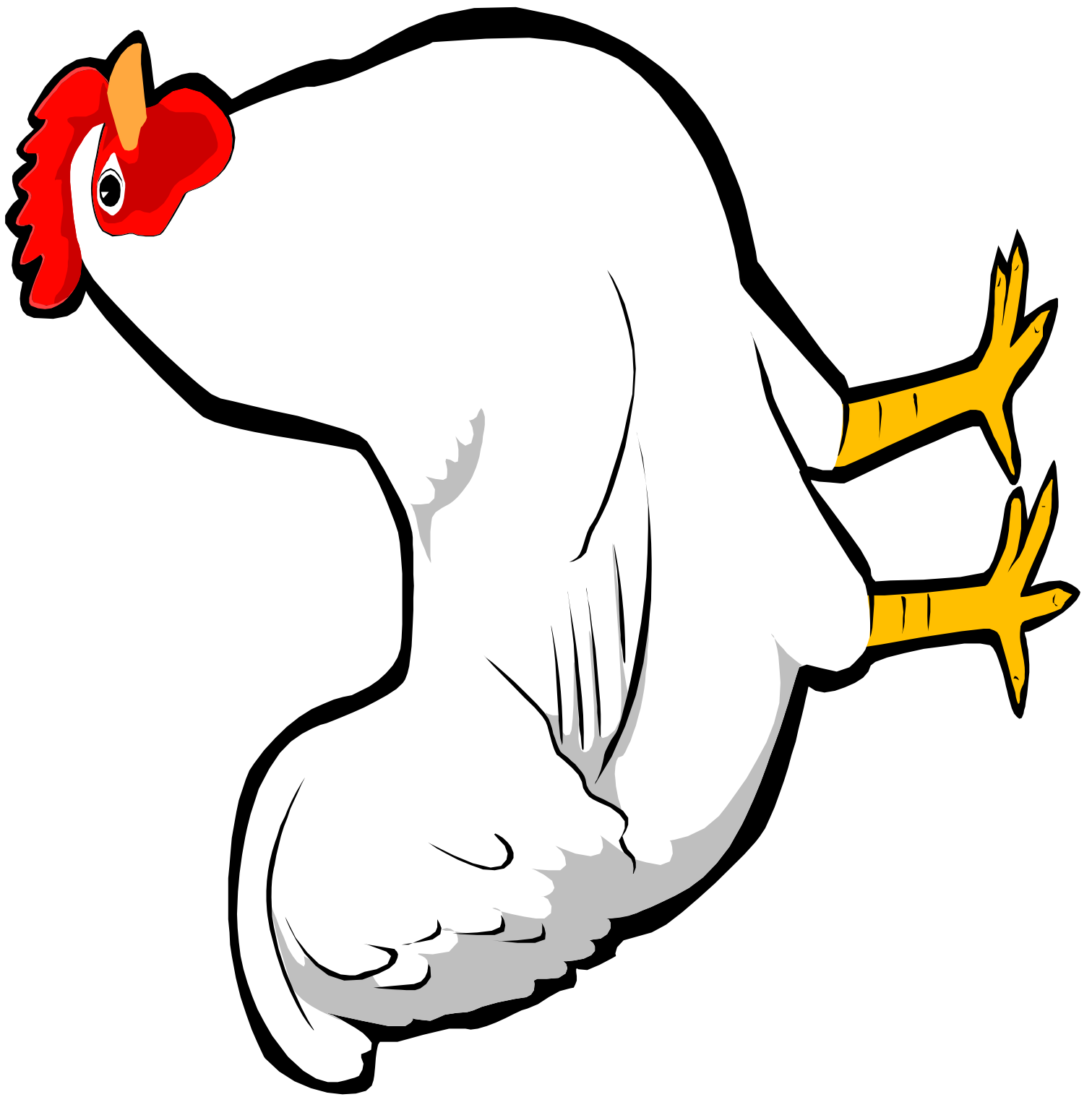
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ICE CREAM
HONEY

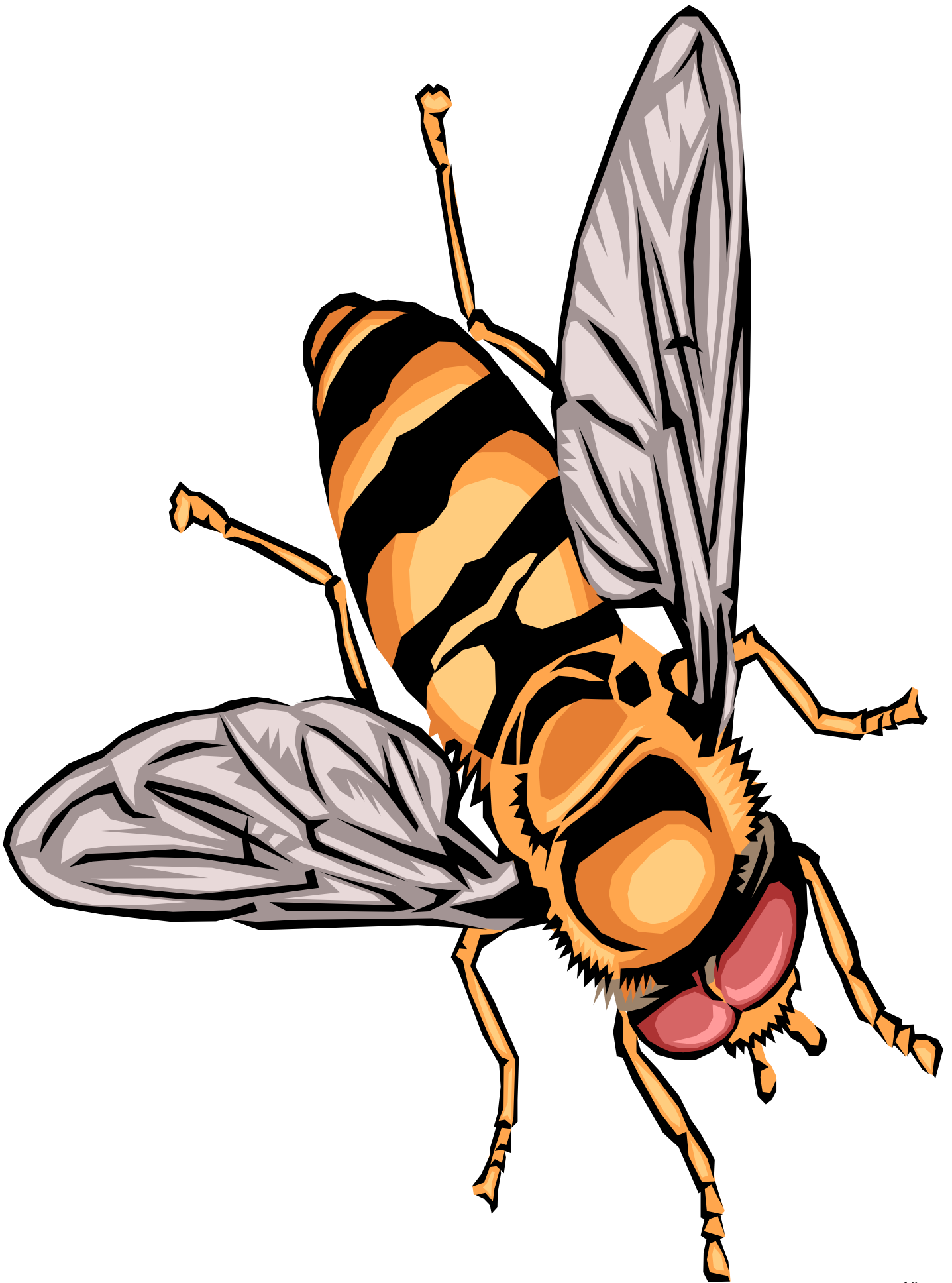
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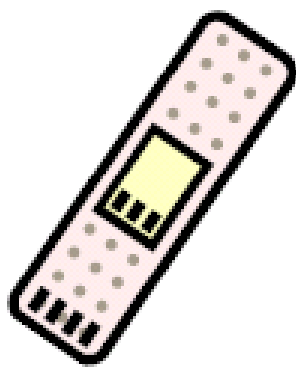







 **by-product** =

parts of an animal



 **other THAN FOOD**

which are used to



 **create ADDITIONAL PRODUCTS**

