Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period \_\_\_\_\_\_\_\_\_

Meat Notes and Cooking Methods

1. *Meat definition:*

* refers to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What we eat are the *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*of animals. Meat and poultry are excellent *\_\_\_\_\_\_\_\_\_\_\_\_*sources of:

* \_\_\_\_\_\_\_\_\_\_\_\_ (builds and repairs \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, makes you feel fuller longer)
  + \_\_\_\_\_\_\_\_\_\_\_ (helps carry \_\_\_\_\_\_\_\_\_\_\_\_\_\_ to body tissues through blood, helps produce \_\_\_\_\_\_\_\_\_\_)
  + \_\_\_\_\_\_\_\_\_\_\_\_ (support metabolism, maintain healthy \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, enhance immune system function, promote cell growth)

1. Meat consist of :

* \_\_\_\_\_\_\_\_\_\_\_ – 75%
* \_\_\_\_\_\_\_\_\_\_\_\_\_ -19%
* \_\_\_\_\_\_\_\_\_\_\_\_\_ – 2.5 %
* \_\_\_\_\_\_\_\_\_\_\_\_\_– 2.3%

1. Grades of Beef (from government inspection):

* \_\_\_\_\_\_\_\_\_\_\_\_(best)
* \_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_

1. RED MEAT: The color depends on the concentration of myoglobin in muscle fiber. When myoglobin is exposed to oxygen \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Redness depends on \_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and narrow \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Red Meat Examples:

* \_\_\_\_\_\_\_\_\_\_\_: \_\_\_\_\_\_\_\_\_(adult cattle) \_\_\_\_\_\_\_\_\_\_\_ (baby calves)
* Lamb, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Carabeef (water buffalo meat)
* A sheep in its first year is called a \_\_\_\_\_\_\_\_\_\_\_. The meat of a juvenile sheep older than one year is \_\_\_\_\_\_\_\_\_\_\_\_\_;  The meat of an adult sheep is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, a term only used for the meat, not the living animal.

1. WHITE MEAT:

* white meat may also refer to any \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* It is believe that white meat is healthier than \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Examples: pork, poultry and game, fish and shellfish

1. Meats form different animals:

* \_\_\_\_\_\_\_\_\_\_\_\_ – pig/hog
* \_\_\_\_\_\_\_\_\_\_\_\_– cow/cattle, veal- baby calves
* \_\_\_\_\_\_\_\_\_\_\_\_– goat
* \_\_\_\_\_\_\_\_\_\_\_\_– deer
* \_\_\_\_\_\_\_\_\_\_\_\_ (less than 1 yr.) mutton- \_\_\_\_\_\_\_\_\_\_\_\_ (more than 1 yr)

1. Structure of Meats:
2. Lean Tissue –
3. Connective Tissue –

a) Collagen –

b) Elastin –

3. Fat –

1. Composition of Meat:

Water

* Water is about \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Shrinkage can be a big problem in cooking meat which result to loss of weight and loss of profit.

Protein

* About 20% of the muscle tissue is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Protein coagulates when it is heated. This means firmer and loses moisture. Coagulation is related to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. FAT:

* 5 % of the muscle tissue is \_\_\_\_\_\_\_\_\_\_\_\_\_\_. A beef carcass can be as much as \_\_\_\_\_\_\_\_\_\_\_\_% fat.

1. Juiciness – *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*is fat deposited within the muscle tissue. Juiciness depends on how

much \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

2. Tenderness – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Flavor – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. BEEF:

* Beef is the meat of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* It is usually bright, cherry red in color with creamy white fat.
* *Cattle* is the collective name for all domesticated oxen

1. Cattle are classified as:

* Bulls – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Calves – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_– female cattle after the first calving, raised principally for milk and calf production..
* Steers – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. VEAL:

* Calves under the age of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* generally \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Variety Meats / Organ Meats:

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – these are the thymus glands of veal and lamb.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of beef, veal, lamb and pork.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_ – the inner lining of the stomach of ruminant (cud-chewing) animals.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_ – cleaned intestines
* other innards – include the lights (lungs), melt (spleen) and mesentery (abdominal membrane)
* \_\_\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_\_ blood

1. Basic Beef Cuts:

* H
* C
* R
* S
* R
* R
* H
* S
* F
* B

1. Pork Products:

* Ham – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It is usually cured and smoked.
* Bacon – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. Pork Carcass Basic Cuts:

* H
* P
* J
* B
* F / H
* S
* H
* S
* F
* P
* S

19. Changes in Meat after death:

1) Muscle is \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, immediately after death

2) A few minutes to 1 hr. – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Should not be cooked at this time

3) After a few days – gradual \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ after freezing. This is the time to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Market forms of Meat:

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – this is meat immediately after slaughter, without undergoing chilling or freezing.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – is meat that has been cooled to a temperature just above freezing (1-3°) within 24 hours after slaughter.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – are meat cuts frozen to an eternal temperature of 20°C (-40°C).

1. Market forms of meat continued:

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – are meat products that have been treated with a curing agent solution like salt, sodium nitrate (salitre), sugar, and spices. (brining)
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – are cooked meat products and only requires to be reheated.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – dehydrated meats. (beef jerky)

1. Effects of cooking meats:

* Changes in pigment – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Changes in meat protein- Decrease in length of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_causing shrinkage. Excessive heating makes the meat \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Fat melts , causing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Loss in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Heat converts collagen into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This requires more \_\_\_\_\_\_\_\_\_\_\_.
* Long cooking develops better \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. Factors influencing Flavor:

* Flavor is due to decomposition of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; Saltiness and sweetness of the blood. The distinctive flavor of animal is affected by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* The older the animal the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* More exercised animals have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* The more varied the feed, the more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. 6 Stages of Doneness:

* very rare - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* rare -\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* medium rare –\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* medium – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* medium well – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Well -\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Storage of Meats:

Fresh Meats:

1. Check purchases as soon as it arrives \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Do not \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, bacteria and mold thrive in moist. Allow air to circulate to inhibits the growth of bacteria.
3. Do not open \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Store at \_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_

5. Store fresh meat in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6.Use refrigerated fresh meats within \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Ground meats and variety meats are more perishable than other meats, use them within \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

7.Refrigerator cured & smoke meats, sausages, and ready to serve meats, unless the label says otherwise, Leave them in their original \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

8.Freeze meats for longer storage. (0°F/18°C or colder) for maximum keeping quality.

* + you can freeze luncheon meat, hotdog, and ham \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Ground meats will keep for \_\_\_\_\_\_\_\_\_\_\_\_\_
  + Pork cuts for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Lamb will keep up to \_\_\_\_\_\_\_\_\_\_\_\_
* Beef will keep for \_\_\_\_\_\_\_\_\_\_

1. Principles of Cooking:

* To improve its palatability quality.
* To increase tenderness-
  + Elastin - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Collagen – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Methods of Tenderizing Tough Meat Cuts:

* Mechanical Method

Elastin can be broken down by:

1.

2.

3.

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_– involves soaking meat in a solution called marinade which contains acid, such as vinegar, lemon juice or tomato juice that helps \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Cooking Meat:

* During cooking, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Cooking meats at too high temperature or for too long will make it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Meat cuts cooked in liquid will \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This is due to over coagulation of the proteins.



