Australian Good Meat Education resources are developed by

MEAT & LIVESTOCK AUSTRALIA

7–8 | LESSON PLAN

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Lesson 6

Compliments to the chef and the producers!

AUSTRALIAN CURRICULUM CONTENT



Analyse how properties of foods determine preparation and presentation techniques when designing solutions for healthy eating. (ACTDEK033, AC9TDE8K05)

Generate, test, iterate and communicate design ideas, processes and solutions using technical terms and graphical representation techniques, including using digital tools. (ACTDEP036, AC9TDE8P02)

LESSON OBJECTIVE

Students will learn about the nutritional qualities and health benefits of red meat, the different cuts of beef and lamb, and how they can be cooked to provide a delicious and nutritious, healthy meal.

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Lesson 6

LESSON OVERVIEW

Activity 6.1	Nutritional requirements of adolescents and the benefits of red meat	15 mins
Activity 6.2	Where do cuts of beef and lamb come from?	20 mins
Activity 6.3	Plan a meaty meal	25 mins
Activity 6.4	Online learning task: Cooking cuts of beef in different ways	15 mins

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Resources and equipment

ACTIVITY 6.1 – Nutritional requirements of adolescents and the benefits of red meat

1. Worksheet 6.1a – *Nutritional requirements of adolescents and the benefits of lean red meat.*
2. Australian Dietary Guidelines: Recommended daily intakes.
3. Australian Dietary Guidelines: Standard serves.
4. Is grain fed beef good for you?
5. Computer/digital device access.
6. Pens.

ACTIVITY 6.2 – Where do cuts of beef and lamb come from?

1. Beef Cuts - Charts & Diagrams.
2. MEAT STANDARDS AUSTRALIA.
3. Computer/digital device access.
4. Worksheet 6.2a – *The whole cow.*
5. Worksheet 6.2b – *The whole sheep.*
6. Pens, pencils, scissors, glue.

ACTIVITY 6.3 – Plan a meaty meal

1. Computer/digital device access.
2. Healthy Meals by cut.
3. Worksheet 6.3a – *My recipe - planning a red meat based meal.*
4. Meat Cuts app.
5. Australian Beef - Recipes, Cooking Tips and More.
6. Taste.com.
7. Colored pencils, pens.

ACTIVITY 6.4 – Online learning task: Cooking cuts of beef in different ways

1. Computer/digital access of Lesson 6 Online learning task.
2. Beef Cuts - Charts & Diagrams.
3. CUT TWO WAYS: OYSTER BLADE (2.10).

ADDITIONAL READING/RESOURCES

- A Guide to Lean Cuts.

Lesson guide

ACTIVITY 6.1 – Nutritional requirements of adolescents and the benefits of red meat

a. Facilitate a discussion about nutritional requirements of people.
   - What are nutritional requirements?
   - Who makes the guidelines for the requirements?
   - Are the requirements the same for each gender and age of person?
   - Why would there be differences in nutritional needs for different people?

b. Distribute Worksheet 6.1a – *Nutritional requirements of adolescents and the benefits of lean red meat.*

c. Students use computer/digital devices to access the source materials listed on the worksheet and answer the questions. (Answers page 14).

ACTIVITY 6.2 – Where do cuts of beef and lamb come from?

a. Facilitate a discussion about primal cuts of beef and lamb.
   - What is meant by the term 'cuts' of meat?
   - What is a 'primal cut'? Can you give an example of a primal cut?
   - Why is it important to have industry-wide recognised names for each cut of meat? Display healthy meals by cut if desired. (Answer page 15).

b. View the link to the source material identifying beef cuts Beef Cuts - Charts & Diagrams and also the link identifying lamb cuts MEAT STANDARDS AUSTRALIA to learn about primal cuts of beef and lamb and understand where on the body of the animal each cut comes from.

c. Distribute Worksheet 6.2a – *The whole cow* and/or Worksheet 6.2b – *The whole sheep* and complete the puzzle investigating where various cuts of meat are located on the animals. (Answers pages 15-16)

ACTIVITY 6.3 – Plan a meaty meal

a. Discuss how each different cut of meat has different properties, depending on where the muscle originated from on the animal's body, and how this will influence the best way of cooking any particular cut. (Answers page 17)

b. Students download the 'Meat Cuts' app on a digital device. Click on the link or download from the appropriate app store.

c. Students spend five-minutes using the app, or the website Meat Cuts app to explore cuts of meat from beef, lamb, veal and goat.

Download on the App Store

ANDROID APP ON Google Play



***Lesson guide** continued next page*

Lesson guide *continued*

d. Allow students to work individually or in pairs. Students choose a type (beef, lamb, veal or goat) and cut of meat they would like to eat or cook for someone else and complete Worksheet 6.3a – *My recipe - planning a red meat based meal*. (Answers page 17)

e. Students choose a recipe from the Meat Cuts app, Australian Beef - Recipes, Cooking Tips and More or a web-based recipe platform, such as Taste.com.

f. Students discuss and share their recipes when completed. Encourage students to use the terminology of both the type of meat and the cut in their presentations to their peers.

   As an extension task, students could work out the cost of the meal to purchase and also the price per person of a serving.

ACTIVITY 6.4 – Online learning task: Cooking cuts of beef in different ways

a. Students access Online learning task 6 and complete the provided activities focused on cooking the blade primal cut of beef in two different ways. (Answers page 17)

Student resources

ACTIVITY 6.1 – Nutritional requirements of adolescents and the benefits of red meat

Worksheet 6.1a	Nutritional requirements of adolescents and the benefits of lean red meat

ACTIVITY 6.2 – Where do cuts of beef and lamb come from?

Worksheet 6.2a	The whole cow
Worksheet 6.2b	The whole sheep

ACTIVITY 6.3 – Plan a meaty meal

Worksheet 6.3a	My recipe - planning a red meat based meal

Activity 6.4 – Online learning task: Cooking cuts of beef in different ways

Lesson 6 Online learning task	Cooking cuts of beef in different ways

Worksheet 6.1a

Nutritional requirements of adolescents and the benefits of lean red meat

The Australian Dietary Guidelines recommend the number of standard serves from the five food groups that we should consume each day.

The recommended serves are an average to aim for each day.

1. Access the source Australian Dietary Guidelines: Recommended daily intakes and complete the table below to show the recommended daily intakes of the different food groups for 12-13 year old adolescents.

Recommended daily intakes of each food group for adolescents

Food group	Female Adolescent 12-13 years old (Number of serves per day)	Male Adolescent 12-13 years old (Number of serves per day)
Vegetables and legumes		
Fruit		
Grains (cereal)		
Lean meat, fish, poultry, eggs, nuts, seeds, legumes, beans		
Milk, yoghurt, cheese and alternatives		

2. Summarise the main differences between the recommended daily intakes of each food group between female and male adolescents.

Worksheet 6.1a continued next page

Worksheet 6.1a continued

Worksheet 6.1a

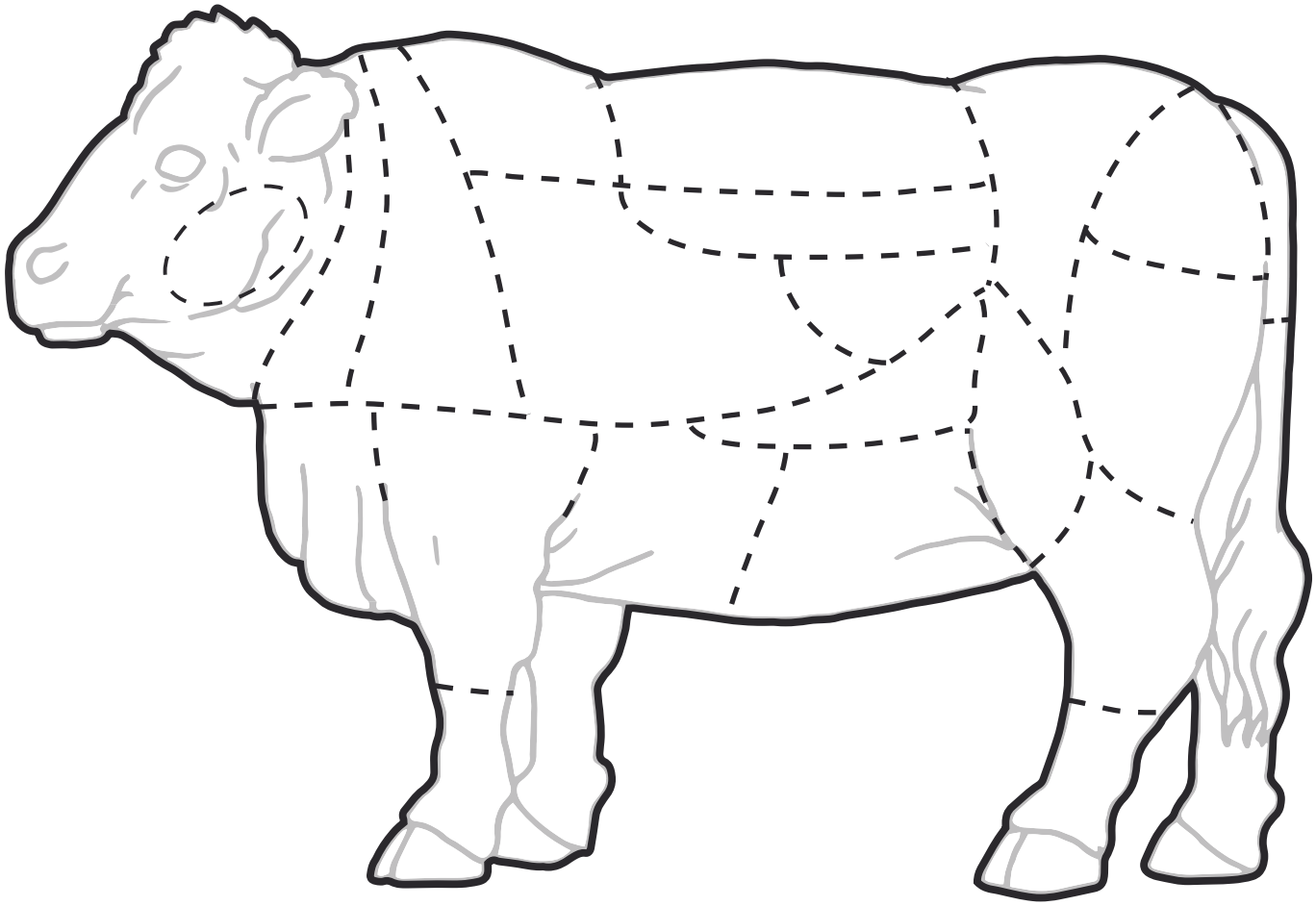
3. Access the source Australian Dietary Guidelines: Standard serves and identify how much a 'serve' of protein is when consuming lean red meat, such as: beef, lamb, veal or goat.
4. Access the source Is grain fed beef good for you? and summarise why one of the lean red meats (beef), is beneficial for you to eat.

Worksheet 6.2a

The whole cow

There are lots of different cuts of meat that can be taken from a cow, but some are more popular than others.

Can you fit the cuts (see next page) in the correct spot on the cow? You can either cut and paste the cuts or write their names in the spaces below. If a cut appears twice on the next page, it must go in two places.



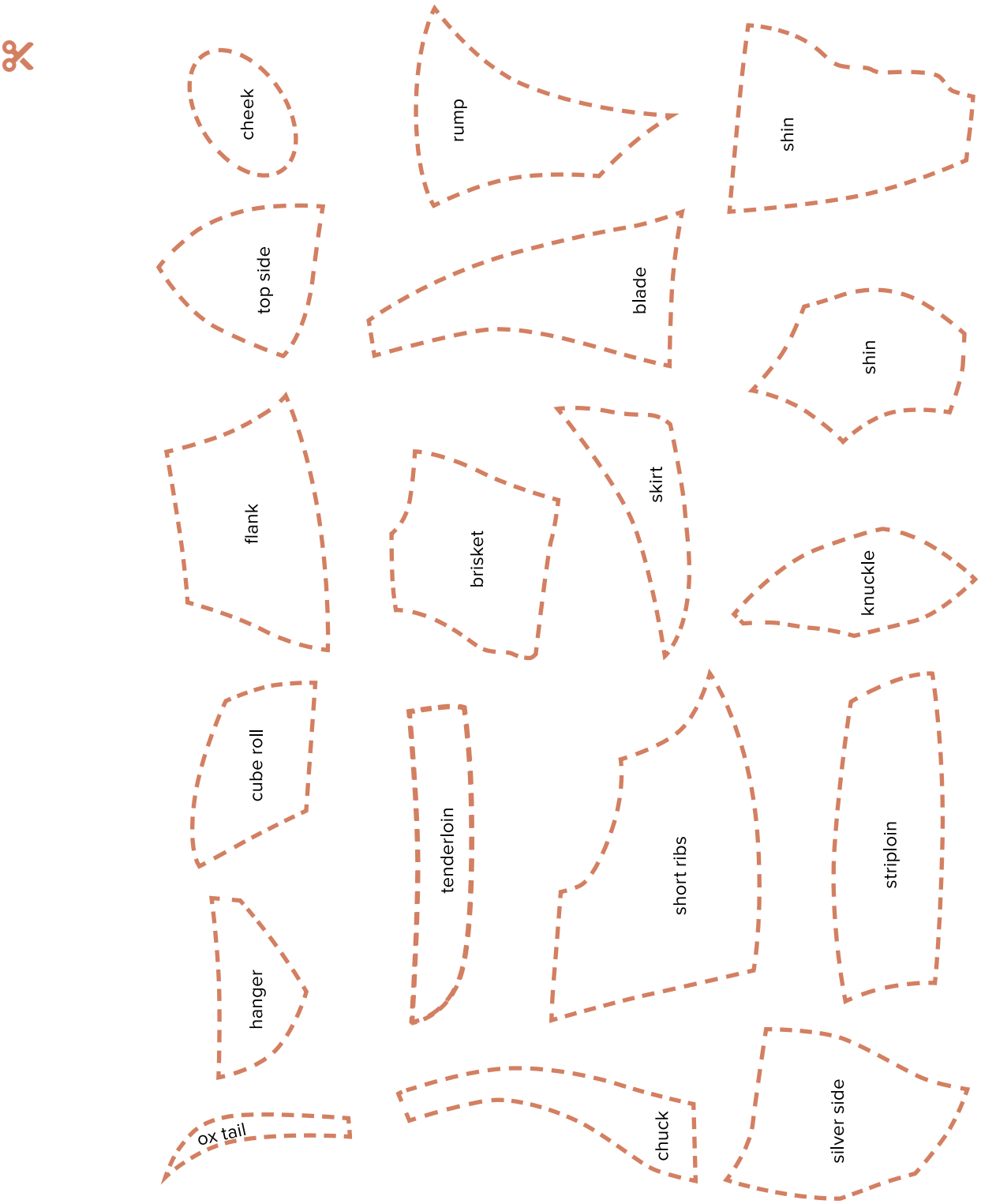
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Worksheet 6.2a continued next page

Worksheet 6.2a continued

Worksheet 6.2a

The whole cow



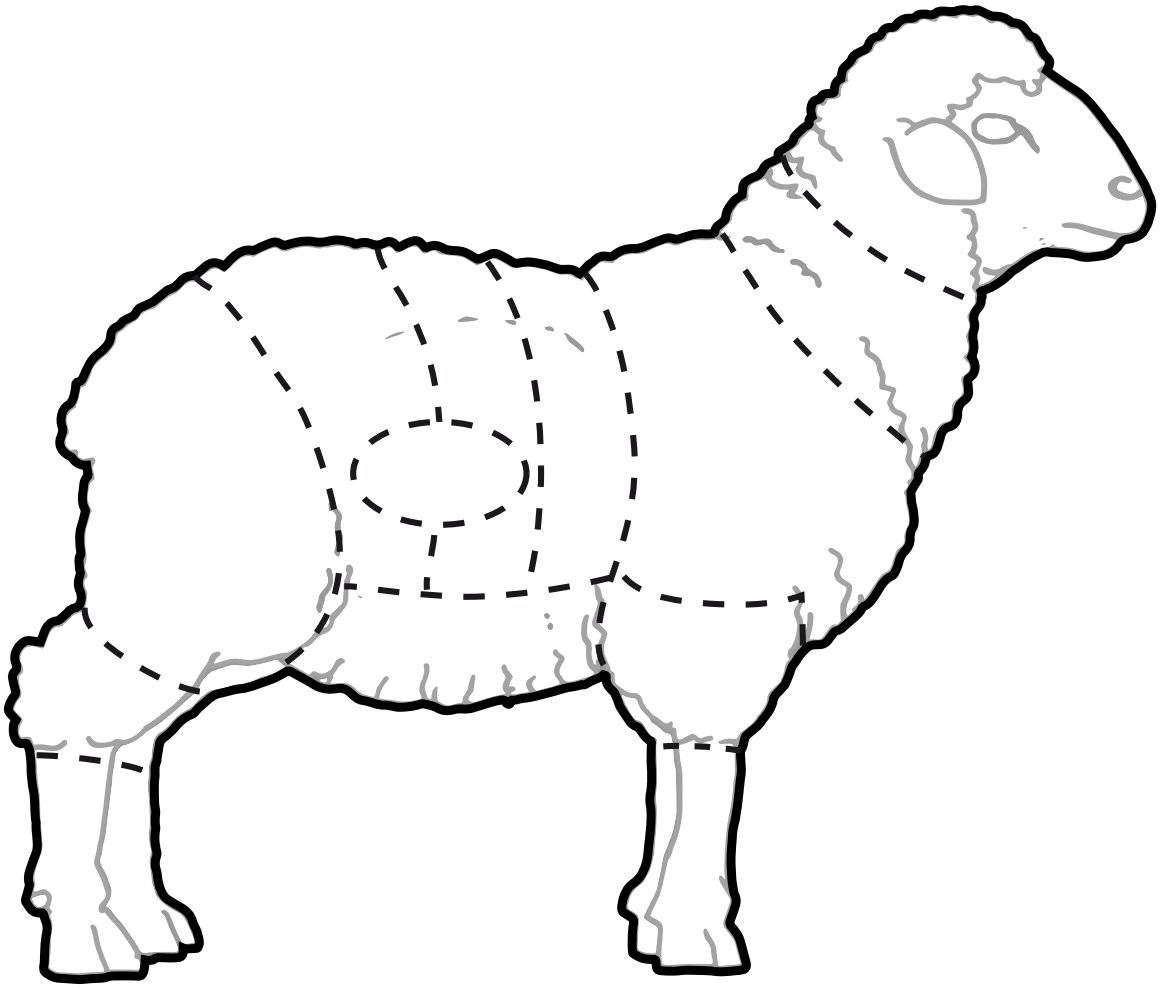
PLEASE NOTE: This activity requires single-sided printing

Worksheet 6.2b

The whole sheep

There are lots of different cuts of meat that can be taken from a sheep, but some are more popular than others.

Can you fit the cuts (see next page) in the correct spot on the sheep? You can either cut and paste the cuts or write their names in the spaces below. If a cut appears twice on the next page, it must go in two places.



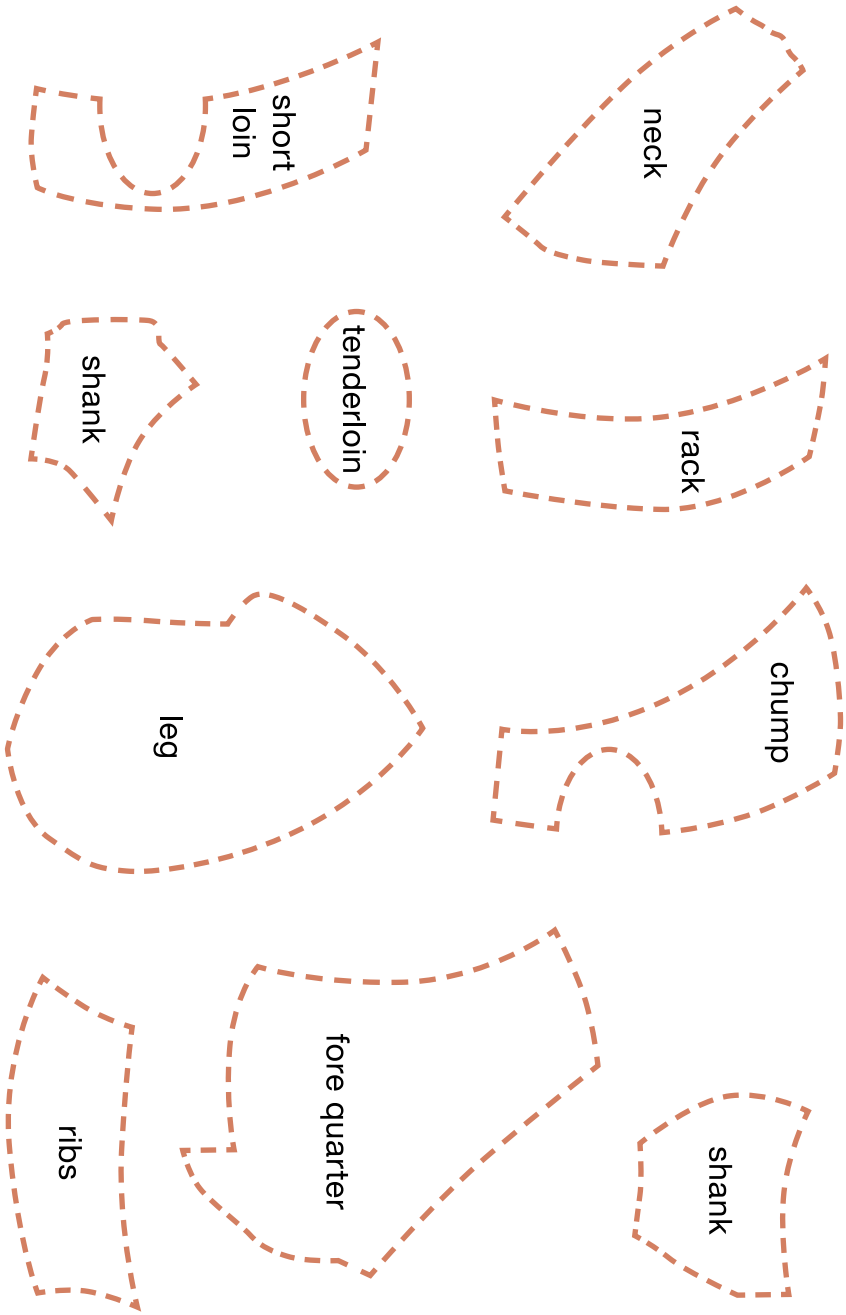
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Worksheet 6.2b continued next page

Worksheet 6.2b continued

Worksheet 6.2b

The whole sheep



PLEASE NOTE: This activity requires single-sided printing

Worksheet 6.3a

My recipe – planning a red meat based meal

Type of meat (Beef/Lamb/Veal/Goat):	Primal cut chosen:	Cut also known as:

Drawing of where this cut comes from on the whole animal:

Recommended ways to cook this cut:

How are you planning to cook this cut in your recipe?

Safety considerations:

Photograph of completed recipe:

Name of chosen recipe:

Ingredients:

Method:

Nutritional requirements of adolescents and the benefits of red meat

Worksheet 6.1a – Nutritional requirements of adolescents and the benefits of lean red meat.

1. **Recommended daily intakes of each food group for adolescents**

Food group	Female Adolescent 12-13 years old (Number of serves per day)	Male Adolescent 12-13 years old (Number of serves per day)
Vegetables and legumes	5	5.5
Fruit	2	2
Grains (cereal)	5	6
Lean meat, fish, poultry, eggs, nuts, seeds, legumes, beans	2.5	2.5
Milk, yoghurt, cheese and alternatives	3.5	3.5

2. The main differences between female and male adolescents are that males are recommended to eat half a serving of vegetables and legumes and also one serving of grains more than females.
3. 65g of cooked lean red meats such as beef, lamb, veal and goat is a ‘serve’ of protein, pork, goat or kangaroo (about 90-100g raw).
4. Grain-fed beef contains 12 essential nutrients important for brain and muscle development and function, immunity and energy. Red meat is:
   - low in sodium (salt),
   - low in trans fats,
   - has no artificial flavours or preservatives,
   - gluten free,
   - a good source of vitamin B12, B3, B6,
   - high in haem iron (the most bioavailable form of iron),
   - rich in zinc and selenium,
   - packed with protein.

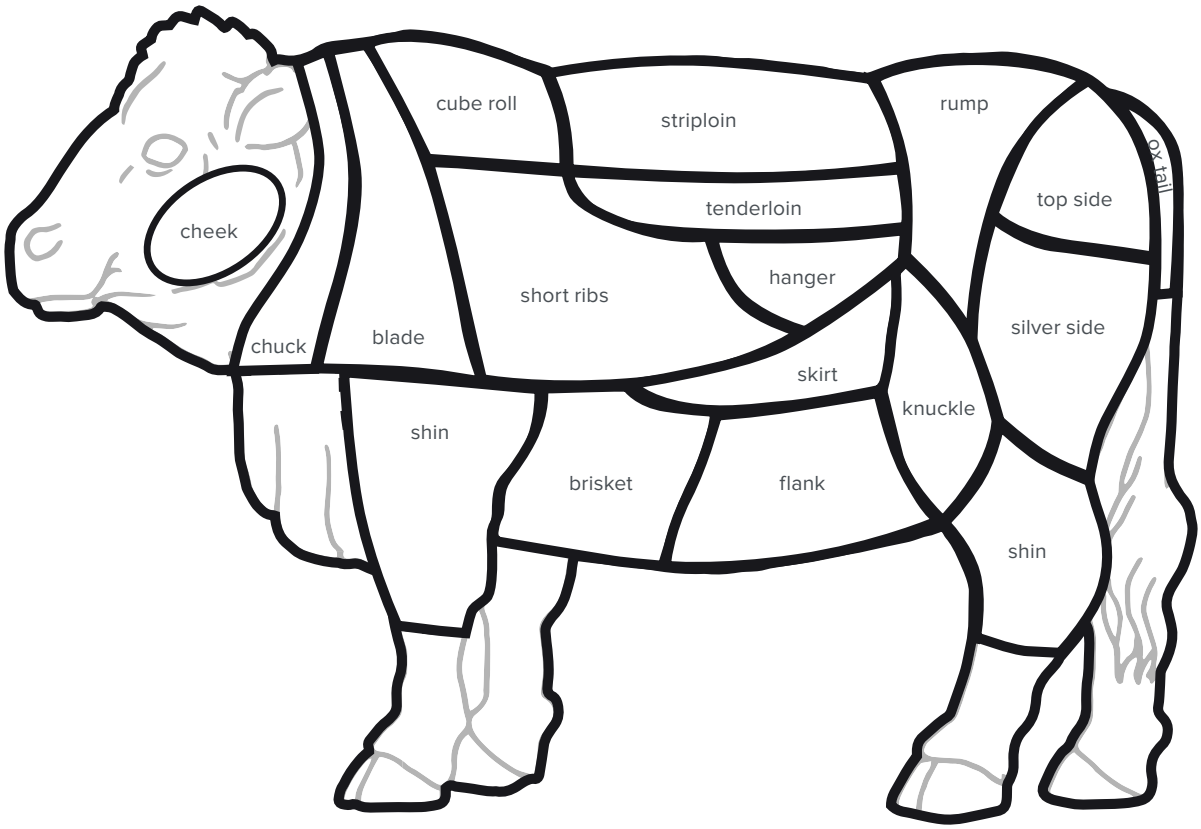
Activity 6.2

Where do cuts of beef and lamb come from?

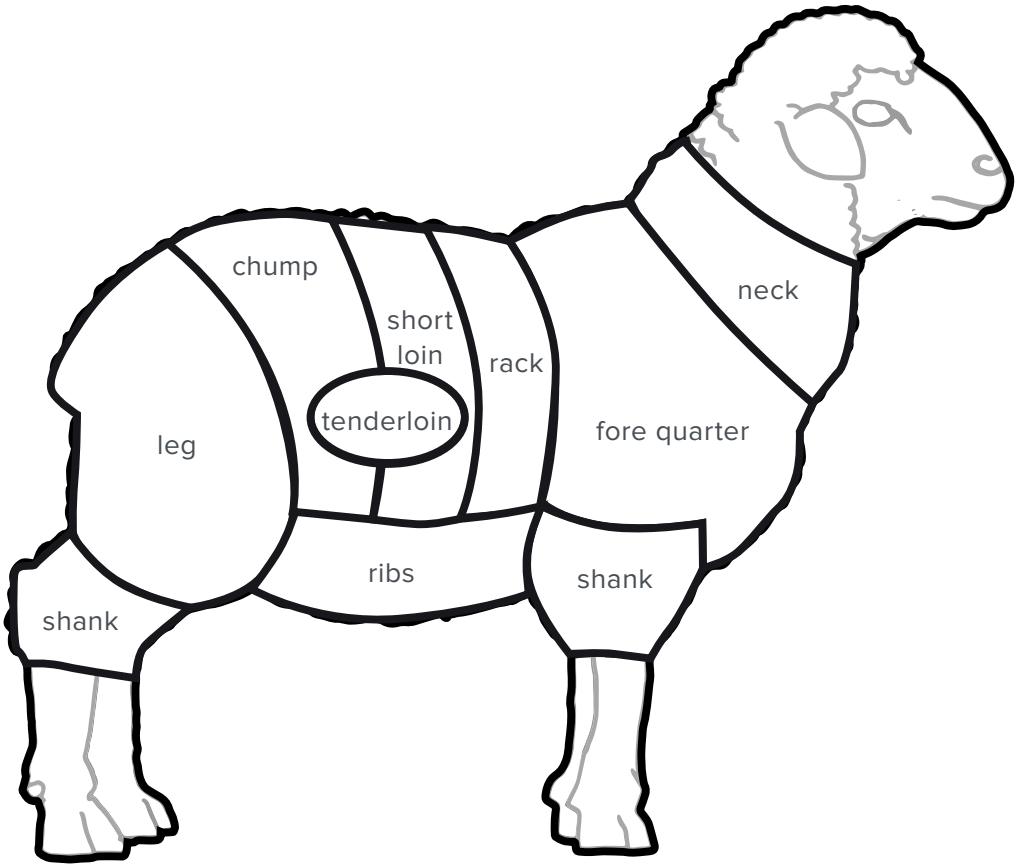
a. Cuts of meat are the pieces of muscle, cut from the animal carcase during butchering.

- Primal cuts of meat, such as beef, lamb and goats are the basic cuts of meat, initially separated from the carcase during butchering. The primal cuts can then be broken down further into smaller steaks, chops, etc. Examples of primal cuts for beef are: striploin, rump, topside, etc. Examples for lamb are: rack, leg, chump, shank, etc. Examples for goat are: rack, leg, chump, shank, etc.
- The purpose of having industry-recognised named cuts means that consumers know what to expect when purchasing. They can predict how the meat will be best cooked, whether there will be bones in the cut, how much fat to expect, etc.

Worksheet 6.2a – The whole cow



Worksheet 6.2b – The whole sheep



Activity 6.3

Plan a meaty meal

a. Muscles that are used more frequently become stronger, and therefore the cut of meat will be tougher than the cut of meat from a more infrequently used muscle, e.g. the fillet will be more tender than brisket. How the meat is cooked (length and method of cooking) will also influence the taste, juiciness and tenderness of the meat. Each cut has a recommended way of cooking. See Healthy Meals by Cut.

Worksheet 6.3a – My recipe - planning a red meat based meal.

Various answers.

Activity 6.4

Online learning task: Cooking cuts of beef in different ways.

1. The primal cut used in both recipes or meals is blade.
2. Name of chef #1: Guy Thurland.
   - Name of cut used in recipe: Oyster blade (This is a muscle just below the shoulder blade, bisected by a long line of connective tissue)
   - Describe how the chef cooked the meat: main points include, seared whole; braised in a pot; slow cooked.
   - Name of dish: Braised oyster blade with sweet miso, mushroom and black rice.
   - Screenshot of prepared dish: (student inserts image)
3. Name of chef #2: Tom Walton.
   - Name of cut used in recipe: Flat iron steak (steaks cut by removing the silver ‘skin’ in the centre of the oyster blade then cutting into thin steaks)
   - Describe how the chef cooked the meat: main points include, grilled on a hot grill; cooked quickly.
   - Name of dish: Grilled flat iron with shio koji, smoky eggplant and bambino cabbage.
   - Screenshot of prepared dish: (student inserts image)