



Province of the
EASTERN CAPE
EDUCATION

HOSPITALITY STUDIES

GRADE 11

TERM 2 WEEK 2

FISH NOTES

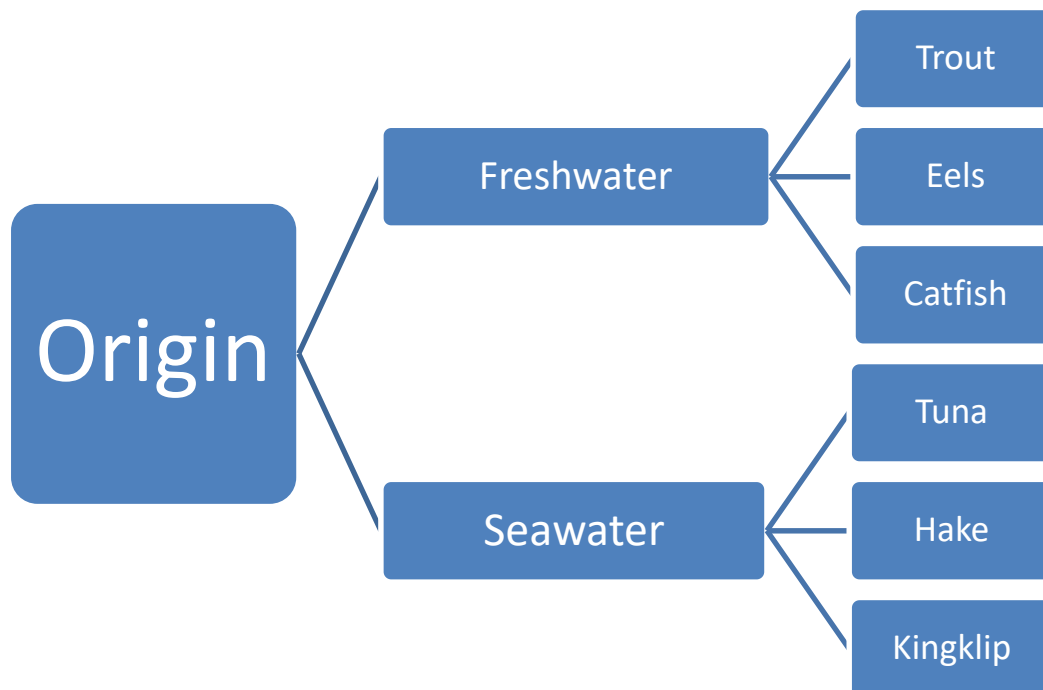
This document consists of 15 pages.

NUTRITIONAL VALUE

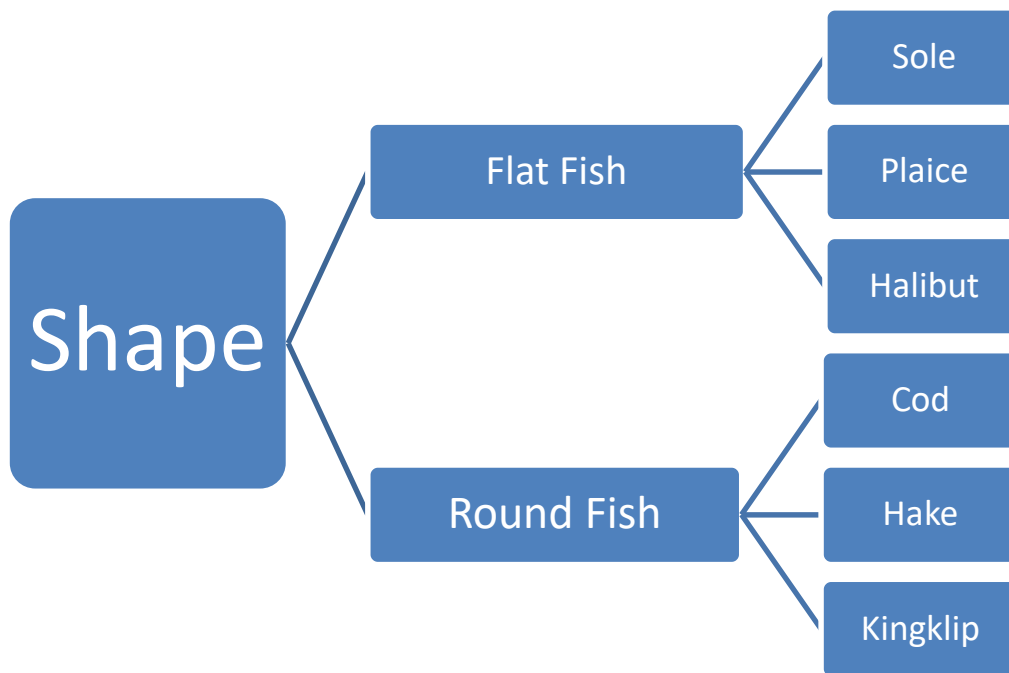
- High in protein
- Rich in vitamins and vitamins
- Omega -3 fatty oils (help lower blood fats and reduces heart disease)
- Shellfish – high in cholesterol but low in fat
- High water content
(80% in white fish and 68% in oily fish)

CLASSIFICATION OF FISH

Fish is classified by: Origin, Shape and Flesh



- **Fresh water fish** are found in dams, rivers and lakes or especially farmed.
- **Sea water / salt water fish** are found in the sea

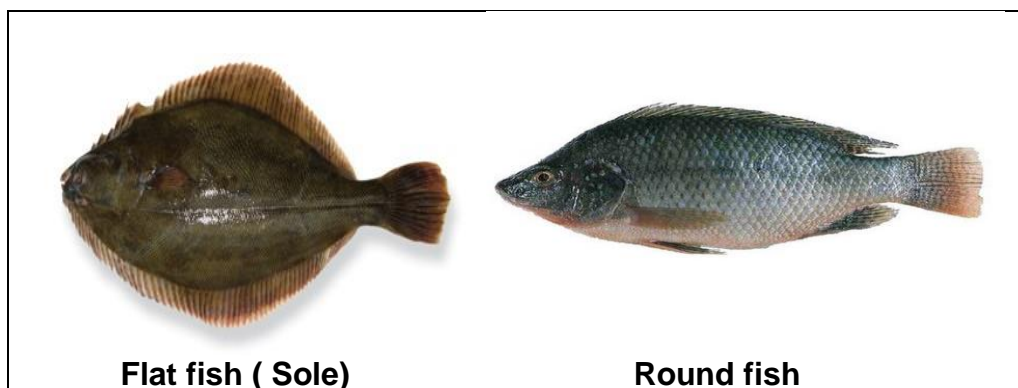


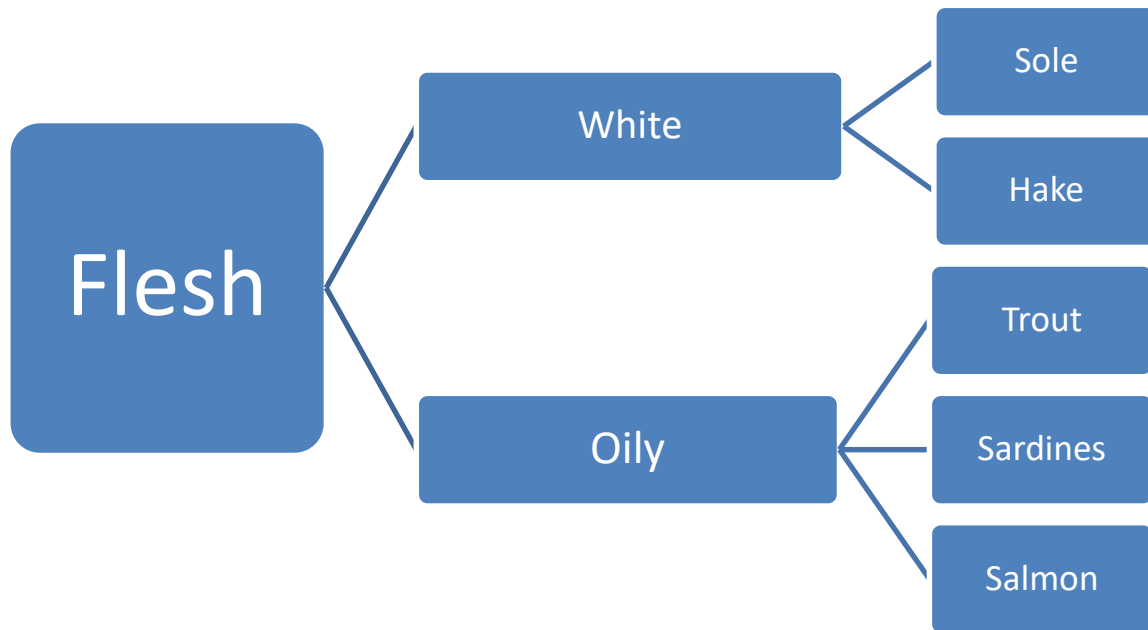
Flat fish

- Bottom dwellers
- Flesh is white and lean
- Have 4 fillets
- Eyes are on the same side (on the top)
- Swim horizontally

Round fish

- Most common
- Flesh is white or oily
- Have 2 fillets
- Eyes on each side of the head
- Swim vertically



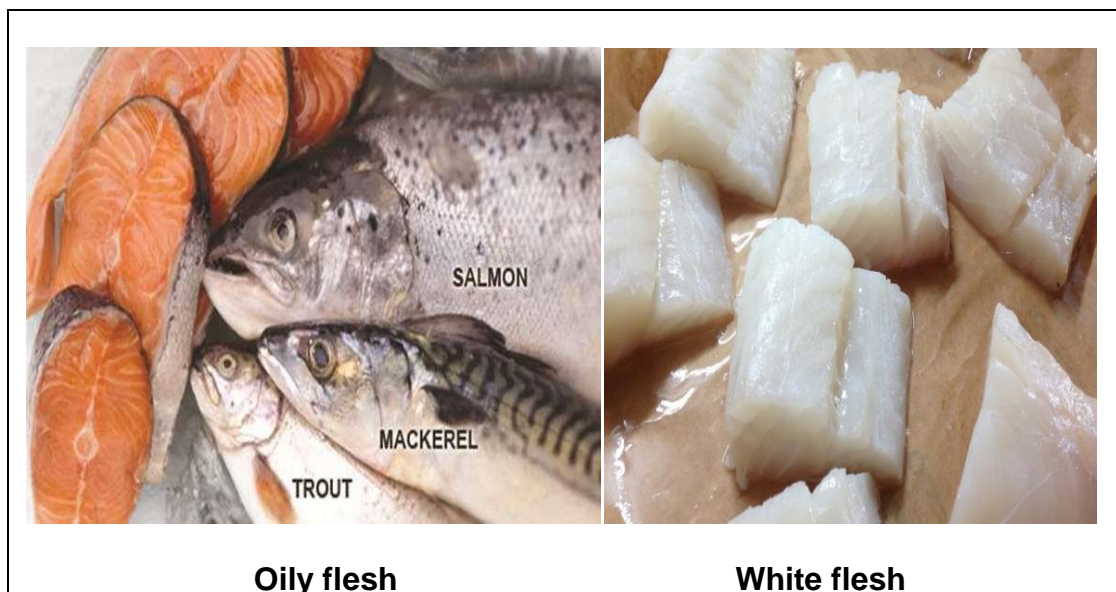


White flesh fish

- Dry (oil is stored in their liver only and not in the flesh)
- All flat fish have white flesh

Oily flesh fish

- Store oil throughout their flesh
- Fillets contain up to 30% oil
- High in Omega 3 fatty acids
- High in Vitamin A and D
- Usually pink in colour



SHELLFISH

- Availability depends on environment and season
- Best bought alive and cooked as soon as possible
- Deteriorate quickly
- Good source of Vitamin B-12, omega 3 fatty acids, iron, zinc, copper & selenium

(1) Molluscs

(a) **Univalves** (one shell) e.g. abalone

(b) **Bivalves** (two shells) e.g. oysters and mussels



Abalone



Abalone shell

UNI-VALVES



Mussels



Mussel shell



Oysters

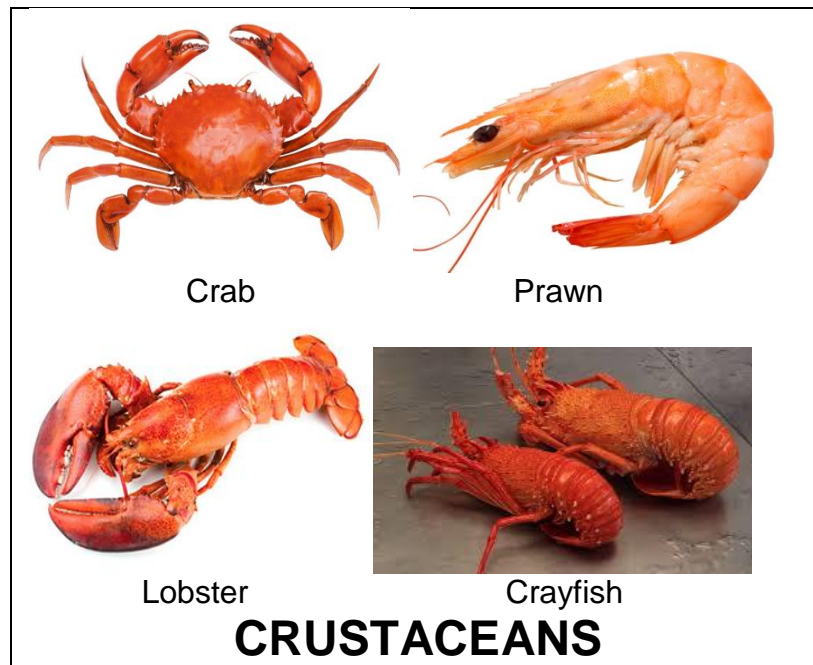


Oyster shell

BI-VALVES

(2) Crustaceans

- Have a hard exoskeleton
- Turn pale pink when cooked
- Firm and sweet flesh



CEPHALOPODS

- Have a large head with arms positioned around it
- Octopus = 8 arms
- Squid and cuttlefish = 8 arms and 2 tentacles
- Nutritious and healthy to eat
- Little saturated fats
- Vitamin B, omega-3 fatty acids, potassium and selenium





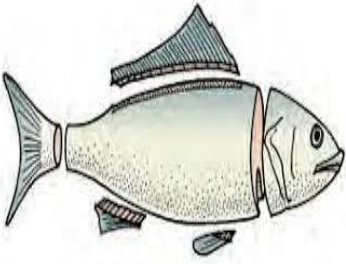




PURCHASING FISH

The following criteria determine freshness:

	CRITERIA	FRESHNESS
1	Smell	Slight sea smell or no odour at all
2	Eyes	Clear and full. Not sunken
3	Gills	Intact and bright red
4	Texture	Firm and springy
5	Fins & scales	Moist and full
6	Appearance	Moist and glistening. No bruising or dark spots

FORMS OF PURCHASING FRESH FISH

	FORM OF FISH	DESCRIPTION
1	Whole	As caught. The whole fish is intact.
2	Drawn	Internal organs are removed
3	Dressed	Internal organs, scales, head, tail and fins removed
4	Pan-dressed	Internal organs, gills, scales and head removed. Tail and fins are trimmed
5	Steaks	Cross-section slice with a section of backbone
6	Fillets	Boneless sides, with or without skin
7	Butterflied	Pan-dressed, boned and opened like a book.

			
Whole	Drawn	Dressed	
			
Pan-dressed	Steaks	Butterflied	Fillets

OTHER FORMS OF FISH PRODUCTS

	Form	Description
1	Canned	<ul style="list-style-type: none"> Hygienic way of preserving fish Don't buy bloated or rusty cans Storage: unopened cans in the pantry. Decant open tins into air tight container and store in the fridge
2	Smoked	<ul style="list-style-type: none"> Acts a preservation method Available fresh or frozen E.g. Smoked Salmon / Snoek / Trout / Herrings Storage: in the fridge (2°-5°C)
3	Frozen	<ul style="list-style-type: none"> Don't buy if you see signs of freezer burn Available whole or filleted Frozen processed products include fish fingers Storage: Air tight containers/ boxes in the freezer 18°C for up to 3 months. refreeze thawed fish. <p style="text-align: right;">- Never</p>
4	Pickled	<ul style="list-style-type: none"> Sold in cans or bottles Rollmops -pickled herring around a gherkin in vinegar Curried fish is popular in SA Storage: as for canned fish
5	Dried or salted	<ul style="list-style-type: none"> Moisture is removed by salting and drying e.g. Bokkems Storage: in a dry area away from food that absorbs odours.

STORAGE OF FRESH FISH AND SHELLFISH

	FISH	HOW TO STORE
1	Fresh fish	<ul style="list-style-type: none"> At temperature between 0° and 1°C Place on ice after being caught Wrap portioned fish before icing to prevent ice and water from damaging the exposed flesh Store in the fridge for 1-2 days Store away from foods that absorb odours
2	Shellfish	<ul style="list-style-type: none"> Store at 4°C with high humidity Shellfish can be kept alive for up to 1 week Never ice live shellfish or keep them in plastic bags Freeze shellfish at -18°C



Curried Fish



Pickled fish



Rollmops



Canned Fish



Dried fish (Bokkems)





Smoked Fish




Frozen fish:






PREPARATION METHODS AND TECHNIQUES

	TECHNIQUE	DESCRIPTION
1	Scaling	<ul style="list-style-type: none"> • The process of removing the scales before cooking when the skin is left on • Work from the tail towards the head • Use a fish scaler or the back of a knife 
2	Filleting	<ul style="list-style-type: none"> • Cut parallel to the backbone and against the bone from head to tail • Cut the fillet free from the bone on both ends  <p>Round fish = 2 fillets Flat fish = 4 fillets</p>
3	Skinning	<ul style="list-style-type: none"> • Place the fish skin down on a board • Start from the tail, and cut between the fish and the skin • Angle the knife down towards the skin • Grip the skin tightly with one hand and use a sawing motion to cut the skin cleanly away from the flesh • Frozen fish are easier to skin

COOKING METHODS:

	MOIST COOKING METHODS	DESCRIPTION
1	Boiling / Simmering	<ul style="list-style-type: none"> • Suitable for whole fish • Put whole fish in cold Court Bouillon (fish stock) and bring up to the boil • Place cut fish in simmering water 
2	Poaching	<ul style="list-style-type: none"> • Suitable for small whole fish, or cuts and fillets • Barely cover with liquid (fish stock or milk), cover with buttered paper, bring to the boil and then simmer until cooked 
3	Steaming	<ul style="list-style-type: none"> • Suitable for any fish that can be boiled • Place in a colander over a pot of boiling water and cover with the lid. • Do not overcook • Serve coated with a sauce 

	DRY COOKING METHODS	DESCRIPTION
1	Deep-frying	<ul style="list-style-type: none"> Hake is the most common fish for deep frying Fish must be coated to prevent it drying out, from absorbing too much oil and from breaking apart. Can be crumbed coated with batter, milk and flour or /pane (dipped in flour, egg and breadcrumbs) 
2	Shallow-frying	<ul style="list-style-type: none"> Small whole fish, cuts or fillets Pass through seasoned flour and in butter on both sides Fry presentation side first Serve with nut brown butter 
3	Grilling	<ul style="list-style-type: none"> Small whole fish, cuts or fillets Pass through seasoned flour, brush with oil and on both sides, presentation side first 
4	Baking	<ul style="list-style-type: none"> Whole fish, cuts and fillets Usually wrapped in foil before baking or covered with a sauce

THE EFFECT OF HEAT OF FISH

- Never overcook fish
- Cook until almost done and then remove from the heat as it will carry on cooking
- The protein in the fish liquid coagulates at 140° - 160°C
- When 160°C is reached, the natural juices in the fish flesh seep out (causing the fish to be overcooked, dry and flavourless)
- When using moist cooking methods, do not use too much liquid as the vitamins and minerals seep into the liquid. Use the liquid for a sauce to keep the nutritional value.
- Boiled fish tends to fall apart
- Poaching retains the texture and flavour

PORTION SIZES

Depends on:

- Whether the fish is served whole, on the bone or filleted.
- The place on the menu (starter or main)

Follow these guidelines:

	CUT OF FISH	PORTION SIZE
1	Fish steak	250g
2	Fish fillet	125g-170g
3	Fish on the bone & dressed fish	250g-375g
4	Whole or drawn fish	375g-500g

ACCOMPANIMENTS

	COOKING METHOD	ACCOMPANIMENTS
1	Boiled	<ul style="list-style-type: none"> • Butter sauces (Beurre Blanc) • Vegetable coulis • Any side dish • Lemon wedge
2	Steamed	<ul style="list-style-type: none"> • Hollandaise sauce • Salad • Lemon wedge
3	Poached	<ul style="list-style-type: none"> • Poaching liquid can be used to make a white wine or velouté sauce • Cold poached fish is served with Tartare sauce • Lemon wedge
4	Shallow-fried	<ul style="list-style-type: none"> • Sauce from pan juices (browned butter) • Herb and garlic butter • Tartare sauce • Lemon wedge
5	Deep-fried	<ul style="list-style-type: none"> • Spicy tomato or soya sauce-based dipping sauces • Tartare sauce • Chips • Salad • Lemon wedge
6	Baked	<ul style="list-style-type: none"> • Creole sauce or Beurre Blanc • Starch dish (rice, pasta, potatoes) • Lemon wedge
7	Grilled	<ul style="list-style-type: none"> • Butter sauces • Vegetable coulis • Salad • Lemon wedge
8	Raw fish	<ul style="list-style-type: none"> • Soya sauce, pickled ginger and Wasabi (for Sushi and Sashimi)

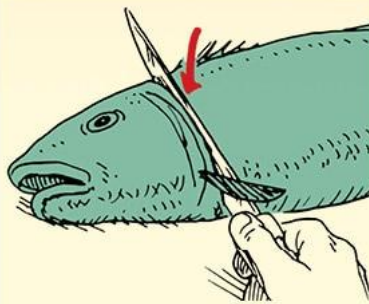


How to Fillet a Fish

The Art of
MANLINESS
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1. Safety first. Put the fish on a non-slip surface (a log in the wild; a cutting board at home). Use a sharp fillet knife, always cutting away from yourself.



2. Just behind the gills and pectoral fin, make an incision down to the backbone.



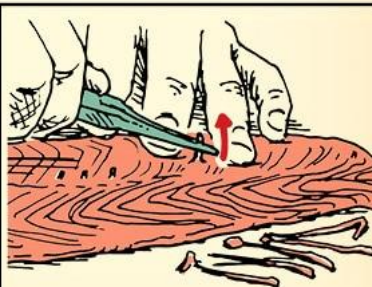
3. Turn the knife horizontally, and using the backbone as your guide, cut all the way down to the tail.



4. Flip fish over, and repeat on the other side.



5. To cut the skin off, make an incision a half-inch up from the tail end, and slice carefully away from yourself between the flesh and skin.



6. Carefully remove the pin bones with tweezers.

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