

Food & Beverage Operations

BMIH4002

Week 6: Introduction to Kitchen

Tristan Hawkins PGCHE

t.hawkins@uwtsd.ac.uk

Man Geni Addysg Uwch yng Nghymru
Where Higher Education Began in Wales

www.uwtsd.ac.uk

Week 6:

Kitchen Brigade

Kitchen Layouts

Kitchen Safety

HACCP

Food Safety

4 C's

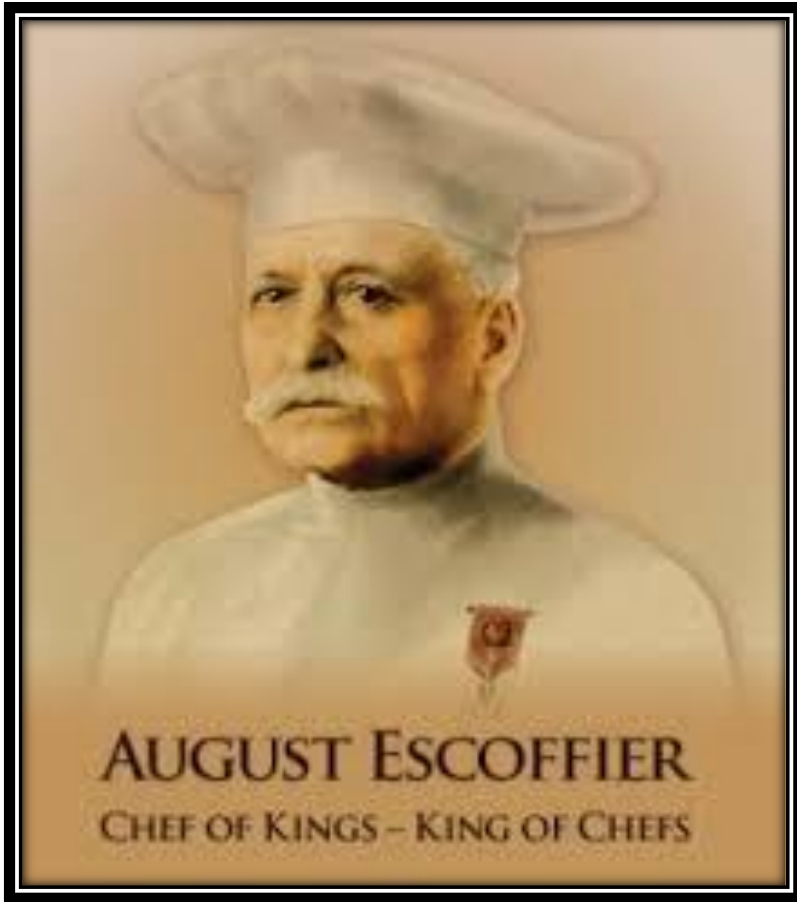


Learning Objectives:

Upon completion of this **lecture**, you should:

- Understand where the Kitchen Brigade comes from
- Be familiar with the different sections of a kitchen
- Be able to handle food safely when working in the kitchen.
- Have a good understanding of the 4Cs.
- Have a good understanding of the Cross Contamination

Escoffier's Kitchen Brigade



Auguste Escoffier

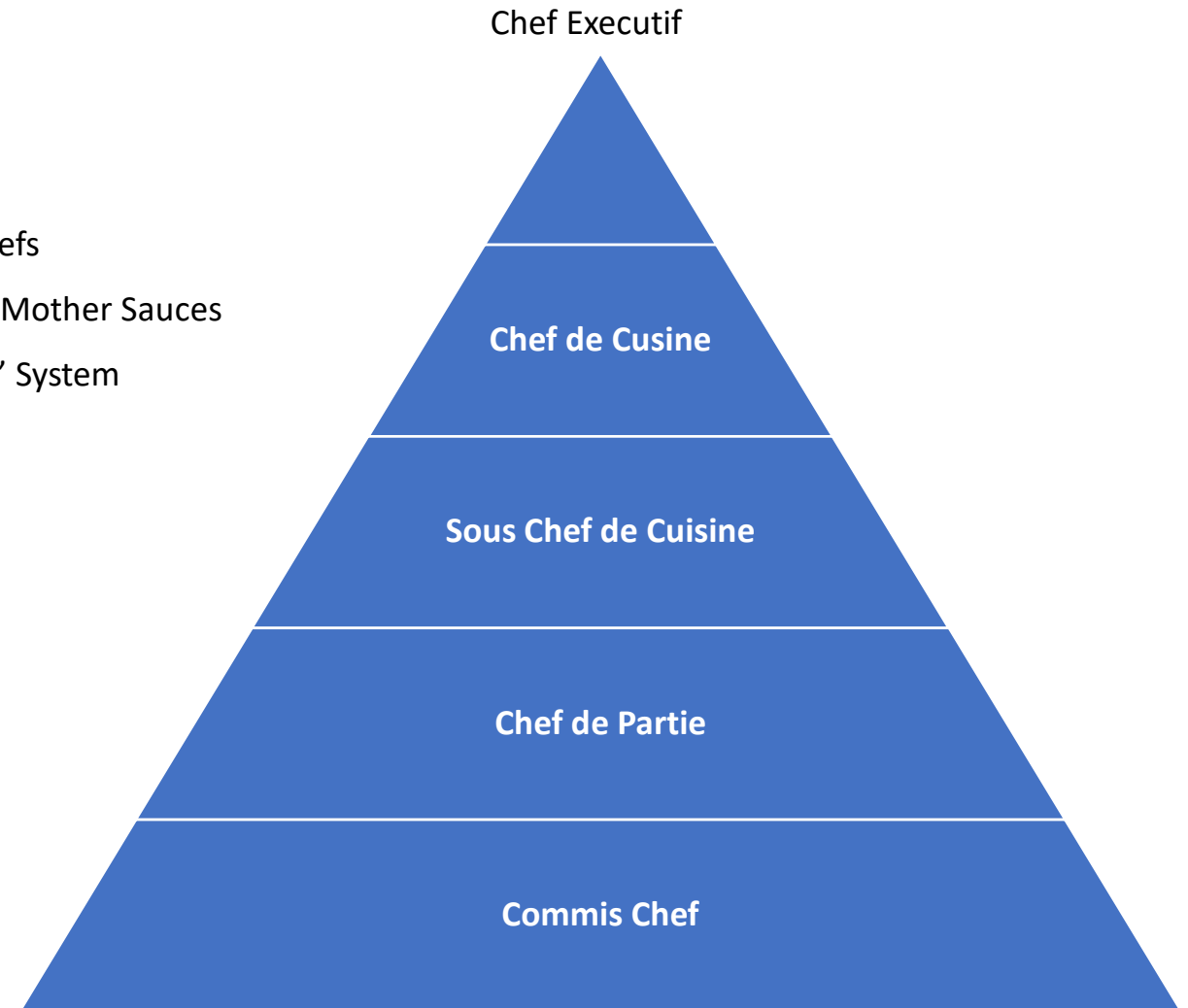
1846 - 1935

French Chef

Chef of Kings, King of Chefs

Developed the 5 French Mother Sauces
and "Brigade de Cuisine" System

The 5 Roles of the Kitchen Brigade

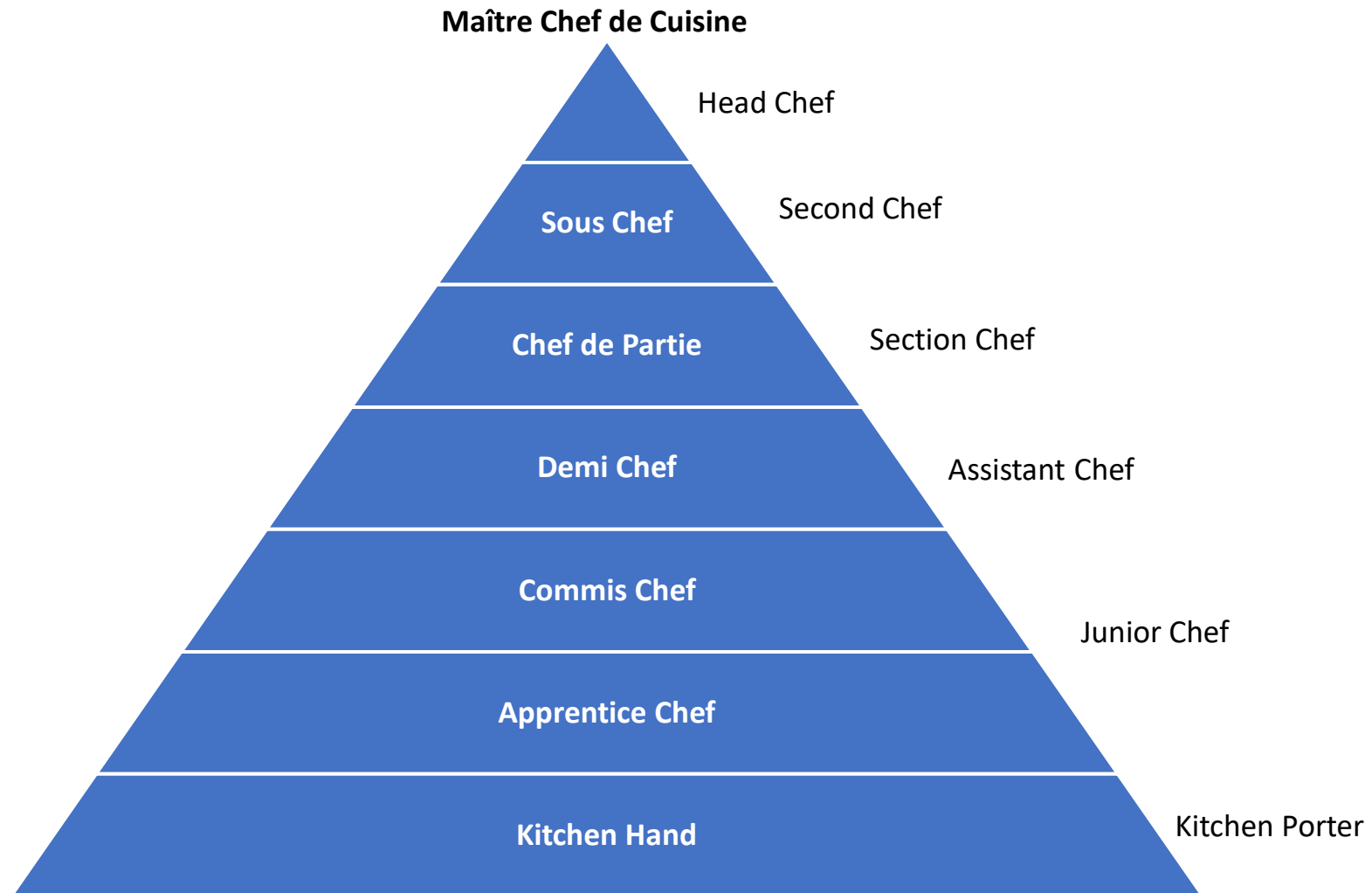


(Gillespie, 2001)

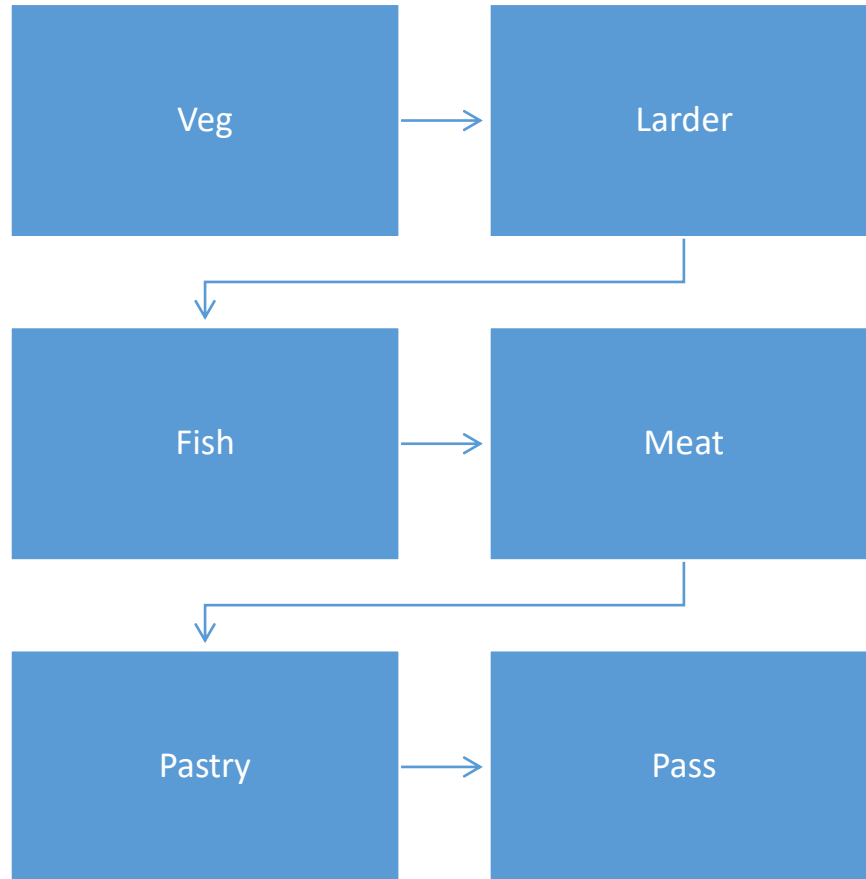
Escoffier's Brigade System



Today's Kitchen Brigade



Kitchen Layout - Sections

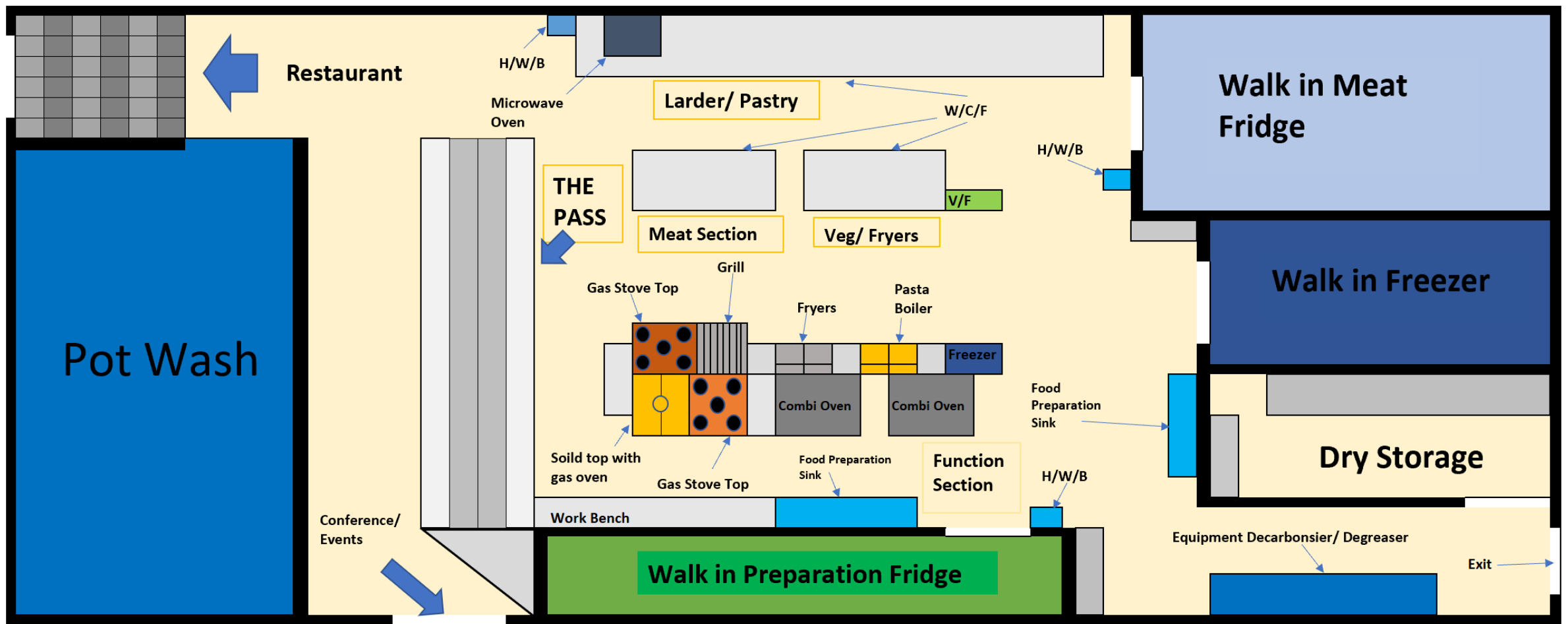


Top Tip: If trying to set up your own physical kitchen the space available will dictate what is possible. If space is a real premium try and keep the larder and pastry sections separate from the main kitchen as the dishes produced here really benefit from a cooler environment.

(Chef Word, 2022)

Behind The Brigade at The Ritz, London





High Protected Risk (HPR)

M/F - Meat fridge

F/F - Fish fridge

P/D/F - Pastry/ Dessert Fridge

D/F - Dairy fridge

L/F - Lader fridge

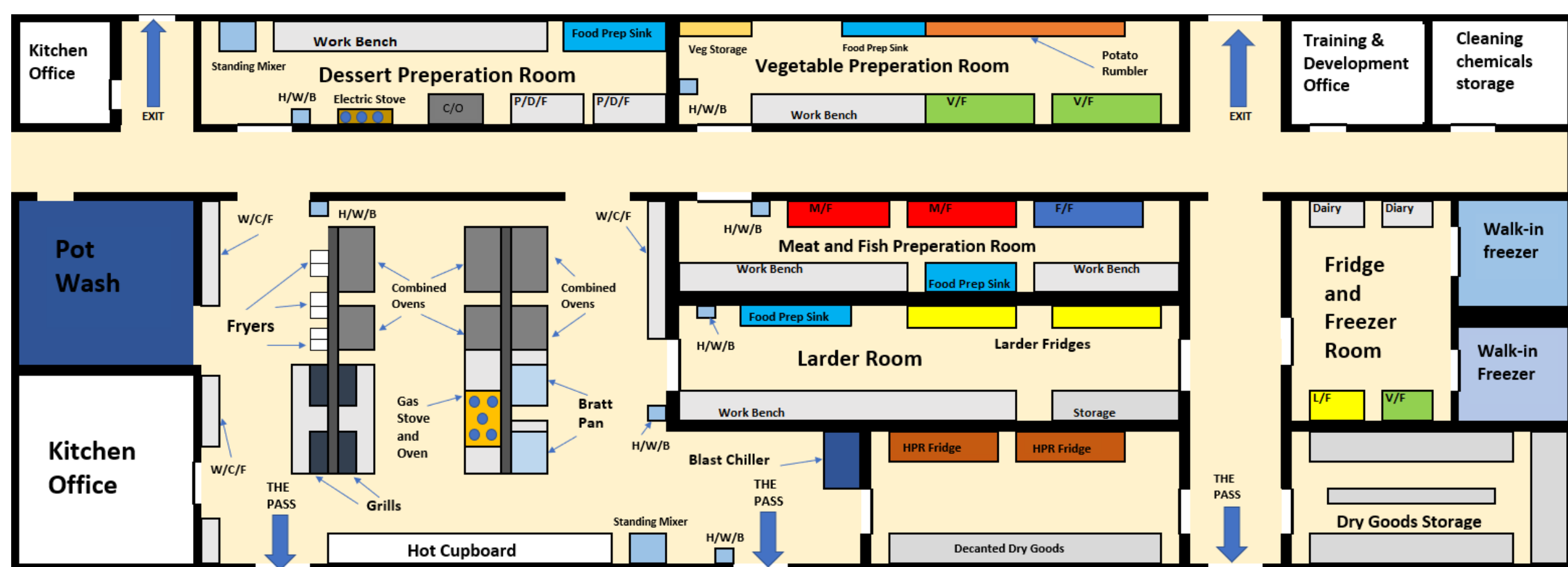
V/F - Vegetable fridge

W/C/F - Work top with Commercial Fridge

H/W/B - Hand Wash Basin

C/O - Combined Oven (Steam and Fan oven capabilities)

St Pierre Marriott Kitchen



High Protected Risk (HPR)
M/F - Meat fridge
F/F - Fish fridge
P/D/F - Pastry/ Dessert Fridge
D/F - Dairy fridge
L/F - Larder fridge

W/C/F - Work top with Commercial Fridge
H/W/B - Hand Wash Basin
C/O - Combined Oven (Steam and Fan oven capabilities)

Super Kitchen

COSHH – Control of Substances Hazardous to Health



Toxic/danger



Warning



Long-term
health hazard



Danger to
environment



Corrosive



Flammable



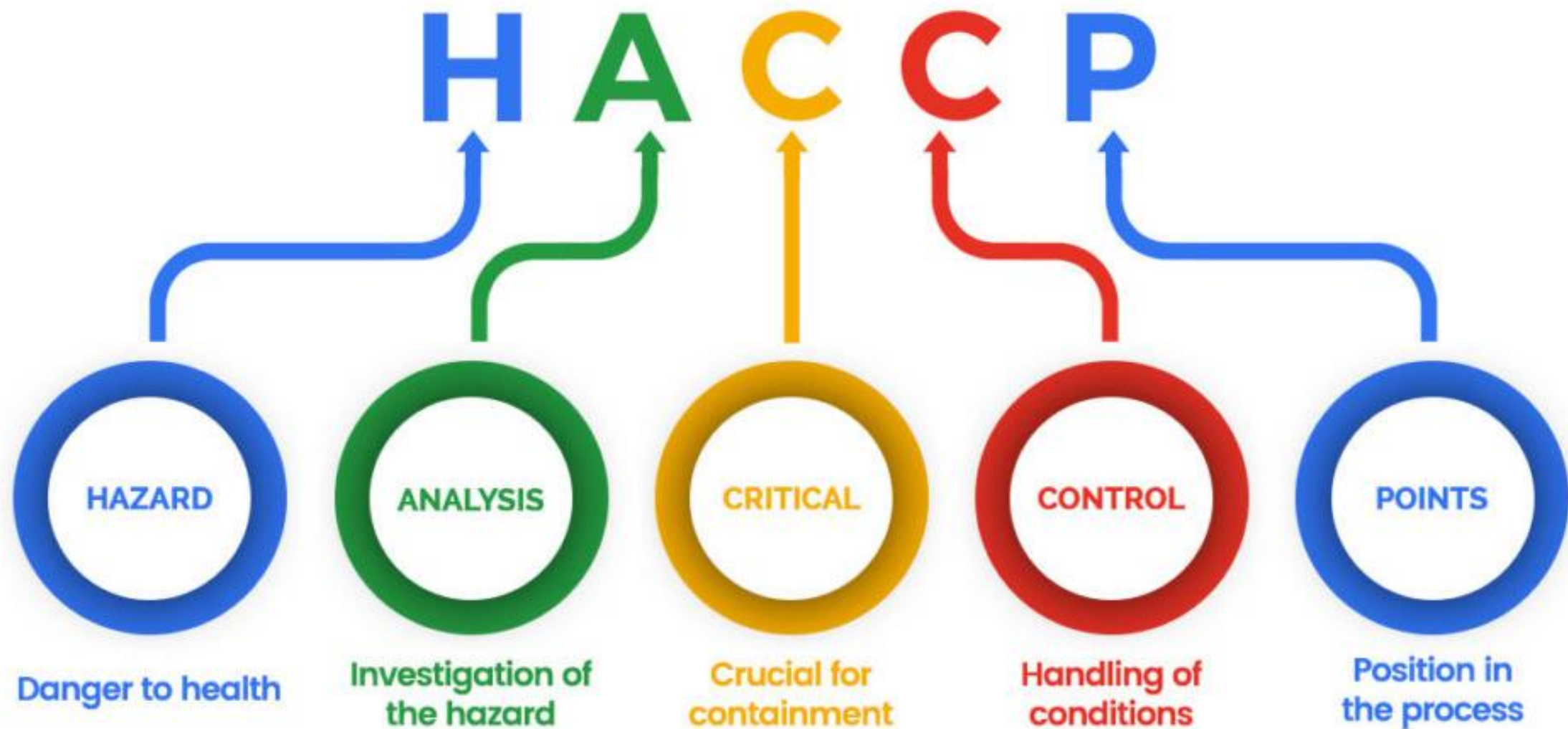
Oxidiser



Explosive



Compressed gas



HACCP – Hazard Analysis of Critical Control Points

HACCP is a food safety management process, by way of managing food safety hazards.

HACCP involves:

- looking closely at what you do in your business, what could go wrong and what risks there are to food safety
- identifying any critical control points the areas a business needs to focus on to ensure those risks are removed or reduced to safe levels
- deciding what action you need to take if something goes wrong
- making sure that your procedures are being followed and are working
- keeping records to show your procedures are working
- It is important to have food safety management procedures that are appropriate for your business.

(Food Standards Agency, 2017)

What are the hazards involved in food preparation and service?

A **hazard** is the potential to cause harm to the consumer and the main hazards are:

- **(Micro)biological**, such as bacteria, viruses, moulds and parasites, e.g. tapeworms
- **Physical**, such as glass, screws, stones and hair
- **Chemical**, such as pesticides and cleaning chemicals
- **Allergenic**, such as peanuts, tree nuts, sesame seeds, eggs and milk

Food hygiene is more than just cleanliness: it also includes all practices involved in:

- Obtaining food from a reliable, approved source
- Protecting food from risk of contamination
- Preventing any bacteria present from multiplying to high numbers
- Destroying any harmful bacteria in the food by thorough cooking or processing
- Throwing away unfit or contaminated food

THE 7 PRINCIPLES OF HACCP

HACCP is an internationally recognized process for maintaining food safety. Here are the seven steps mandated in HACCP guidelines:



What is Food Safety?



“Food safety can be defined as putting in place all of the measures needed to make sure that food and drinks are suitable, safe and wholesome through all of the process is of food provision.”

(Cousins and Weekes, 2020, pg 392)

Food poisoning is unpleasant for anyone but for some the illness can be very serious or even fatal. **High risk groups** include: babies and the very young, elderly people, pregnant women, those with an impaired immune system who are already unwell.

Some foods pose a greater risk to food safety than others are called **high risk foods**. Some examples of high risk foods include;

- soups, stocks, sauces and gravies
- eggs and egg products
- milk and milk products
- cooked meat and fish (and meat and fish products)
- any foods that need to be handled or reheated.

(Cousins and Weekes, 2020)

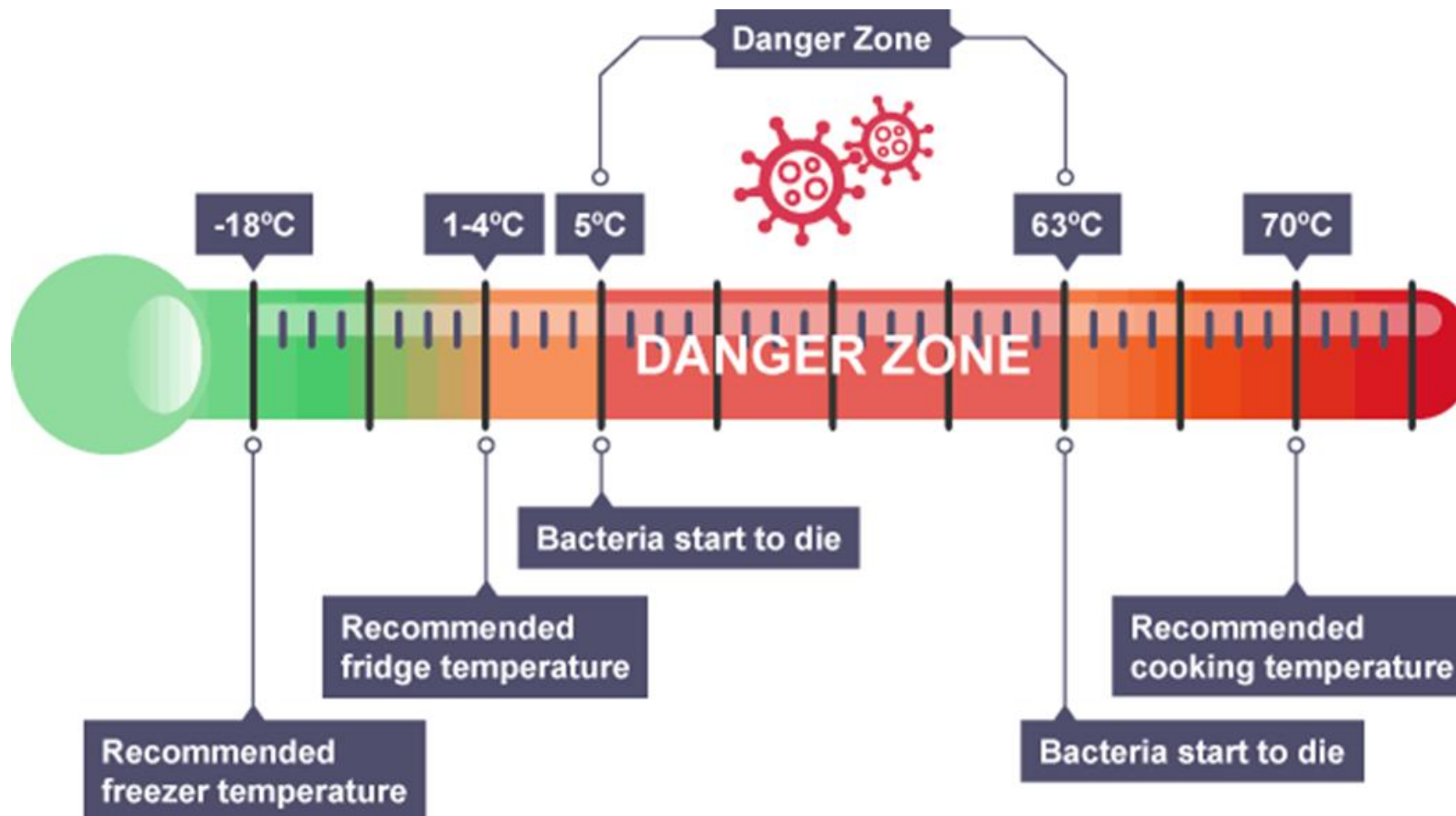


Common faults contributing to food poisoning

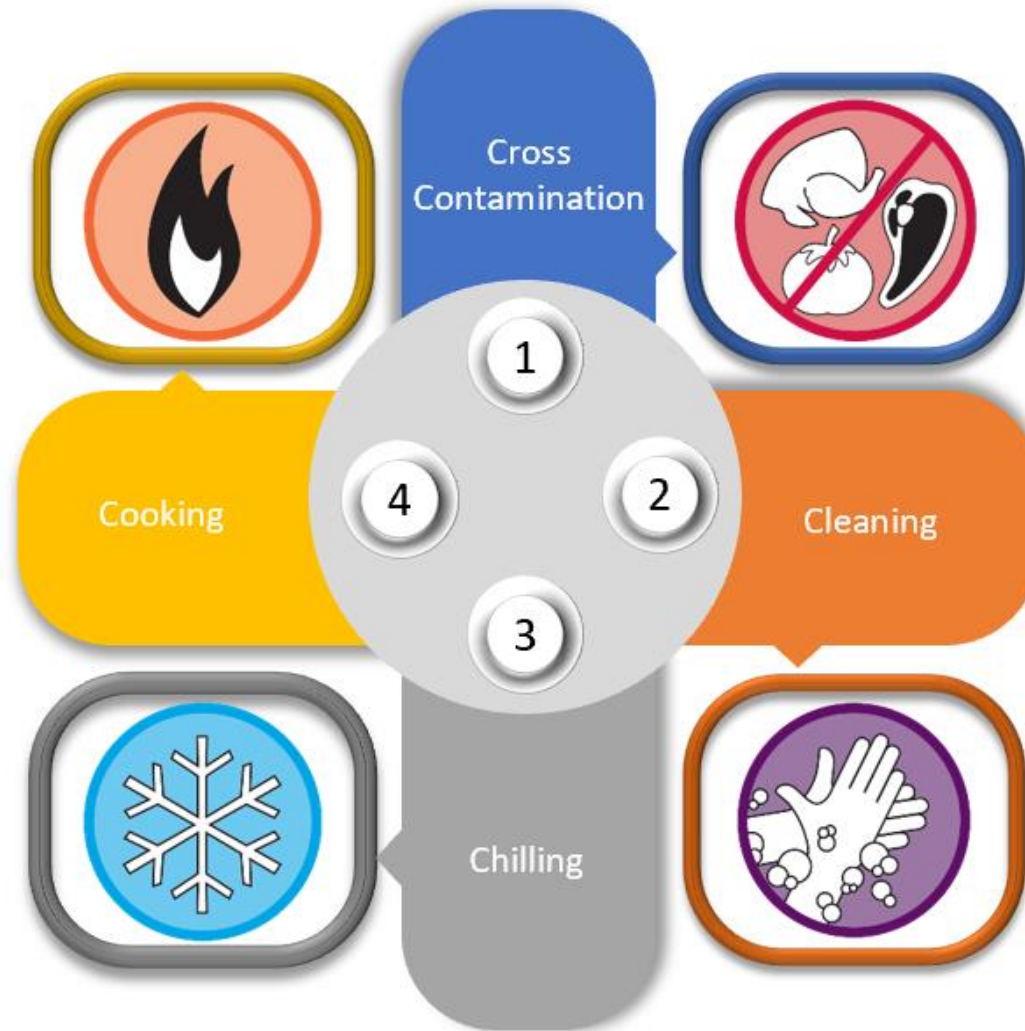
- Preparing food too far in advance
- Storing at room temperature
- Cooling food too slowly
- Not reheating food to a high enough temperature
- Buying food from unreliable suppliers and sources
- Undercooking
- Not thawing food correctly
- Cross contamination
- Eating contaminated raw food
- Storing hot food below 63c
- Unhygienic and infected food handlers



Temperatures for Food Safety



The 4 C's of Food Safety



Cross Contamination



Cross Contamination



Cross-contamination can be direct or indirect.

One example of indirect contamination is if we pick up a doughnut we end up with sugar on our fingers. If this was something potentially hazardous, as just by handling a product you could handle another item or touch someone else causing cross-contamination.

An example of direct contamination could be when a product on a high shelf in a fridge drips onto a product on a lower shelf or when two foods are in physical contact with each other.

Other examples of contamination include:

- Food getting contaminated in transport or packaging
- Damage to food packaging
- Contamination from clothing
- Poor housekeeping
- Rubbish
- Poor storage

We need to make sure we reduce the risk of both direct and indirect contamination; we need to look at ways this can be affected in the workplace and reduce this as much as possible.

Separating Foods

- We must keep raw and ready to eat food separate.
- If it is not kept separate then it may become contaminated with harmful bacteria.
- Raw foods include: raw meats, unwashed salad, vegetables and fruits.
- Ready to eat foods include cooked foods, washed salads, garnishes, desserts and any other food that is not cooked before eating.
- There are many opportunities for cross contamination in our kitchens so we must have plans in place to prevent.



Cross Contamination



To avoid cross contamination it is important that the same equipment is not used for handling raw meat and milk product without being disinfected.

For cutting boards and knives the following colour coding is usually used:

- Red - Raw Meat
- Blue - Raw Fish
- Yellow - Cooked Meats
- Brown - Vegetables
- Green - Fruit and Salad
- White - Dairy Products
- Purple - Allergens



Prevent Cross Contamination



A general checklist to prevent contamination includes:

- Buying foods from reputable sources and check all deliveries carefully for damage and if you see any problems reject the affected item.
- Check dates and apply good stock rotation
- Store food correctly and immediately on delivery to avoid it being left out where it can be contaminated by other foods, smoke, or chemicals
- Ensure personal hygiene of all in the food area and reduce visitors where possible to the food areas
- Ensure good housekeeping and keep all areas clean and free of rubbish, dirt and pests
- Regularly check food systems to ensure they are working correctly and keep good records.

Areas of Concern

How can we separate and prevent cross contamination

- During delivery
- Storage
- Defrosting
- Preparation
- Cooking



Physical & Chemical Contamination

We must prevent objects and chemicals getting into food.

We can do this by:

Following manufacturers instructions when using chemicals to clean.

Storing chemicals away from food.

Keeping food covered

Controlling pests

Clear and clean as you go

Repair and replace kitchen utensils

Have a 'no glass' rule in the kitchen



Cleaning



Handwashing

Effective handwashing is essential to help prevent bacteria spreading to food.

We must wash our hands continuously throughout our shifts.

How long should we wash our hands for?

When specifically should we be washing our hands?

Clear and Clear as You Go

Keeping our kitchens clear and clean makes it safer against hazards, for example physical contamination or the contamination of allergen free food.

- Take off outer packaging before bringing the food into the kitchen or storeroom.
- Be mindful of packaging from raw food touching work surfaces.
- Wash and wipe up spills
- Wash worksurfaces thoroughly between tasks.

Sanitiser vs Disinfectant

Sanitiser

A two in one product that acts as a detergent and a disinfectant.

If using a sanitiser, first we must clean to remove grease and then again to disinfect.

Disinfectant

A chemical which kills bacteria. Check that surfaces are clean of grease, dirt and food before using a disinfectant.



Be sure to check the contact time of the chemical you are using, this is how long the chemical needs to be left on the item you are cleaning to work.

Any
Questions?



Chilling



Chilled Storage

Chilling food properly helps to stop harmful bacteria from growing.

Foods that should be kept chilled: sandwiches, cooked meat and fish, cooked rice and pasta, cream based desserts, food with 'use by dates' and food that specifies 'keep refrigerated' on the label.



Displaying Chilled Food

Display cold food 8°C or below

If it is not possible to display cold food at 8°C or below then follow the '4 hour rule'.

You can only use the 4 hour rule once for that food.

Some foods require storage temperatures below 8°C.

Cooling Down Hot Foods

Harmful bacteria can grow in food that is not chilled down as quickly as possible.

How can we chill down food quickly?

Divide food into smaller portions

Cut joints of meat in half

Cover pans of hot food and move them to a colder area (for example, storage room) or stand them in cold water/ice water.

Stirring food regularly

Spread the food out on a tray

Defrosting

Harmful bacteria can grow in food that is not defrosted properly.

Food should be thoroughly defrosted before cooking.

Options to defrost: in the fridge, put it in a container under running cold water, defrost in the microwave or at room temperature.

Always check to make sure it has defrosted all the way through.



Freezing

We need to be careful when freezing food and handling frozen.

Freezer should be set to -18°C

- Put frozen food away as soon as it's delivered.
- If you are freezing fresh food, freeze it as soon as it has been delivered or prepared.
- Freeze hot food as soon as its been properly chilled.
- Divide food into smaller portions and put it in containers or freezer bags before freezing.

Any Questions?



Cooking



Cooking Safely

Cooking food properly kills harmful bacteria. If it is not cooked properly it may not be safe to eat.

In order to check the temperature of the dishes use a disinfected temperature probe.

Examples of safe time and temperature;

80°C for 6 seconds / 75°C for 30 seconds

70°C for 2 minutes / ~~65°C for 10 minutes~~

~~60°C for 45 minutes~~

Reheating

Reheating food correctly kills harmful bacteria that may have grown since the food was cooked.

Reheating means cooking again, not just warming up.



Hot Holding

It is important to keep food hot until serving to prevent harmful bacteria from growing.

If you need to keep food hot before serving, the correct equipment must be used: soup kettle, bain-marie.

Hot food must be kept at 63°C or above. If this is not possible, you can take food out of hot holding and display it for up to 2 hours – but only once. Once 2 hours has passed it must be thrown away.



Any
Questions?



Tristan Hawkins PGCHE
t.hawkins@uwtsd.ac.uk

Office Hours

Monday to Friday
8.30am – 5pm

Man Geni Addysg Uwch yng Nghymru
Where Higher Education Began in Wales

www.uwtsd.ac.uk

