

# Screen 1

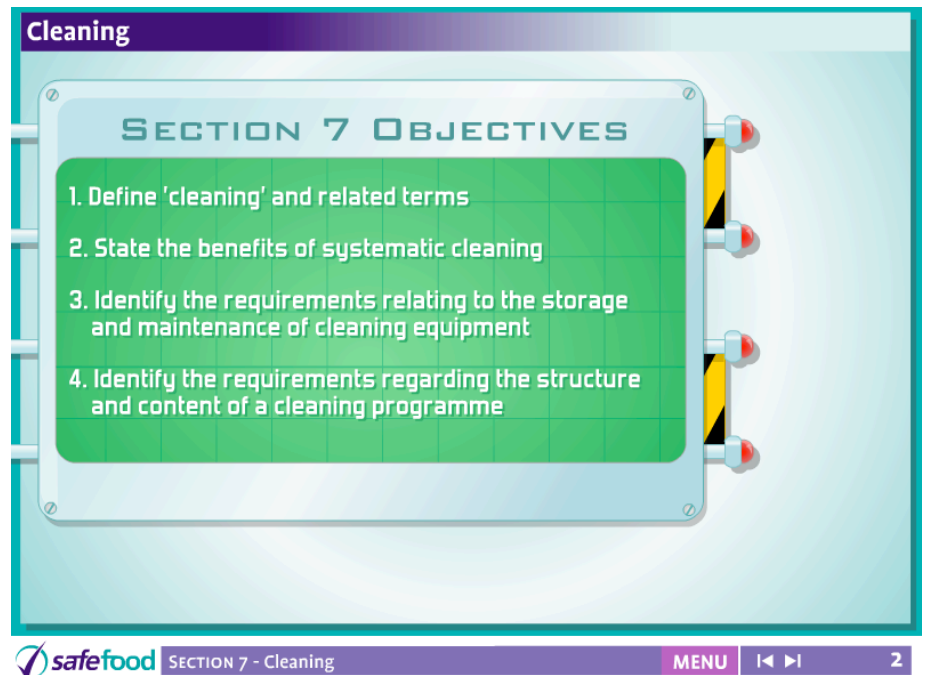
## Cleaning

### Screen description

This screen shows a busy kitchen scene with a number of hazards to food safety. As a starting point students are encouraged to look at the screen and suggest things that might be potential food safety hazards.



# Screen 2



## Cleaning

### Screen description

This screen lists the objectives of the chapter

is not allowed to accumulate to levels which expose food to the risk of contamination.

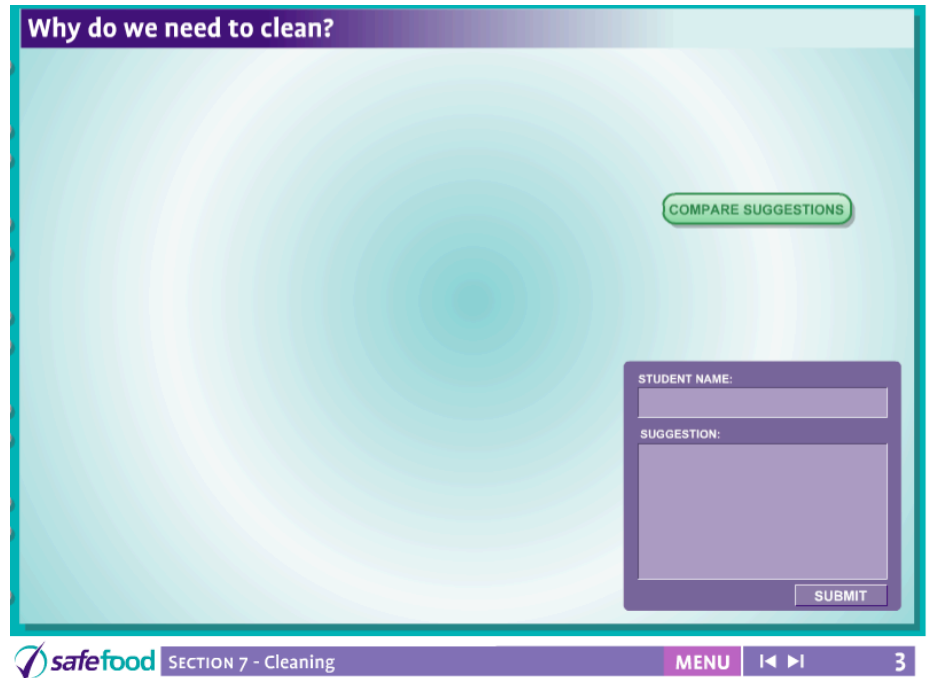
1. Define 'cleaning' and related terms
2. State the benefits of systematic cleaning
3. Identify the requirements relating to the storage and maintenance of cleaning equipment
4. Identify the requirements regarding the structure and content of a cleaning programme

### Teacher

#### Explain points to the students

Cleaning is a job which many people love to hate, however it is one of the most important jobs in the food industry. Where there is dirt there is a risk of disease. It is essential that dirt

# Screen 3



## Why do we need to clean?

### Screen description

Interactive screen that allows the teacher to input suggestions from the students, and have them displayed.

### Teacher

Type the student's name and suggestion in the boxes on the right. When you click the 'submit' button the answers appear from the left. When you're ready to move on, click the 'reveal' button to see a definitive list.

Ask the students if anything has been omitted from the list.

This makes the students look at the list more carefully and to actually think about the points.

The only possible point that may have been overlooked is that cleaning a premises or equipment will keep it in better working order and the item cleaned and cared for will have a longer life.

1. To reduce the risk of cross-contamination
2. To prevent food poisoning and food spoilage
3. To prevent pest infestation
4. To ensure a safe working environment
5. To promote a favourable image to the public
6. To comply with the law

The NSAI "Hygiene in the Catering Sector" standard 340 gives the following guidelines: "Equipment, utensils, cutlery, crockery, work surfaces which come into contact with food, the environment in which food is stored, handled, prepared, served & consumed, internal drains, staff and public facilities and external environment shall be cleaned at regular intervals to prevent the possible contamination of food. The materials used for cleaning shall be suitable for use in a food establishment and shall not be a source of contamination."

Thorough cleaning requires the use of different forms of energy, namely:

**Physical** e.g. scrubbing, sweeping

**Heat** e.g. hot water, steam

**Chemical** e.g. detergents, disinfectants

A supply of clean water is essential for cleaning. It must be potable and free of contamination since water comes into contact with equipment, machinery and food.

# Screen 4



## Cleaning agents and their uses

### Screen description

Interactive screen. It shows the points with an area to display suggestions.

### Teacher

Ask the students to suggest brand name examples so that they can relate the definitions to their everyday life. These can be typed into the spaces on screen.

Show any examples of cleaning agents that may be in the kitchen or laboratory and ask the students to classify them into one of the four cleaning agent groups.

### Cleaning agents and their uses

Different products are used to clean, such as detergents, disinfectants, sanitisers and sterilants.

#### 1. Detergents

Chemicals which remove dirt, grease, oil and food particles. They do not kill bacteria. Water alone will not remove grease and dirt, therefore, a detergent must be added, e.g. soap, washing-up liquid, washing powder.

#### 2. Disinfectants

Chemicals which destroy some but not all micro-organisms, reducing the numbers to a safe level. Examples of disinfectants include bleach, some toilet cleaners, water above 82°C and boiling water.

Disinfectants will not work properly on dirty surfaces; a detergent should be used first. Heat disinfection can be effected using hot water or steam at above 82°C.

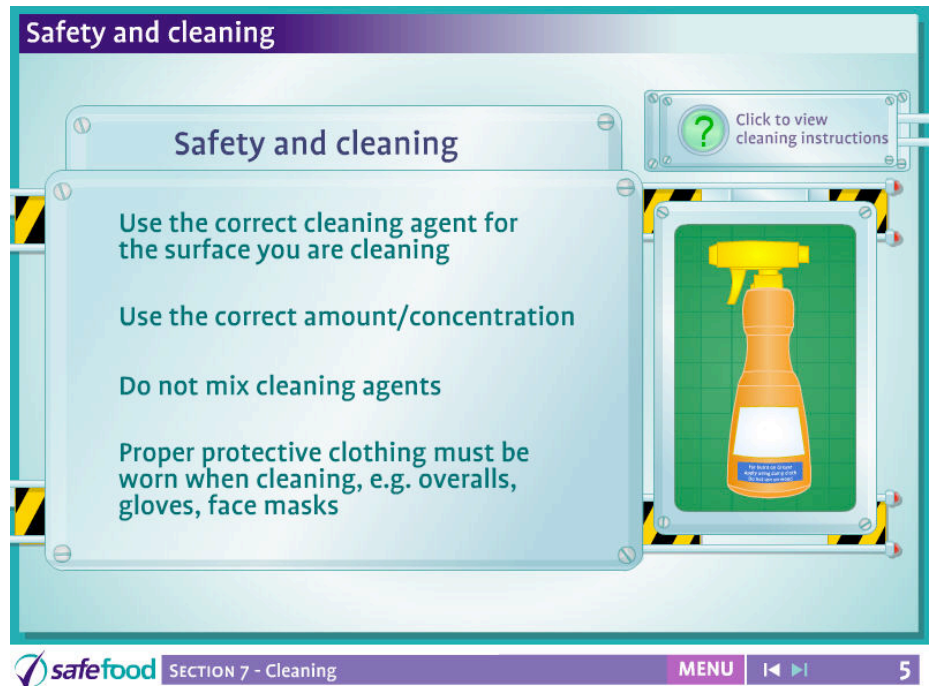
#### 3. Sanitisers

A combined detergent and disinfectant, which remove waste food and reduce the numbers of micro-organisms. They tend to be less effective than disinfectants in destroying bacteria, but play a useful role in cleaning.

#### 4. Sterilants

Substances that destroy or remove all living micro-organisms. Normally, sterilisation is not practical in food premises as it will quickly become recontaminated. In an operating theatre, the patient's life depends on the efficiency of the sterile procedure.

# Screen 5



## Safety and cleaning

### Screen description

This screen shows points about safety and cleaning.

### Teacher

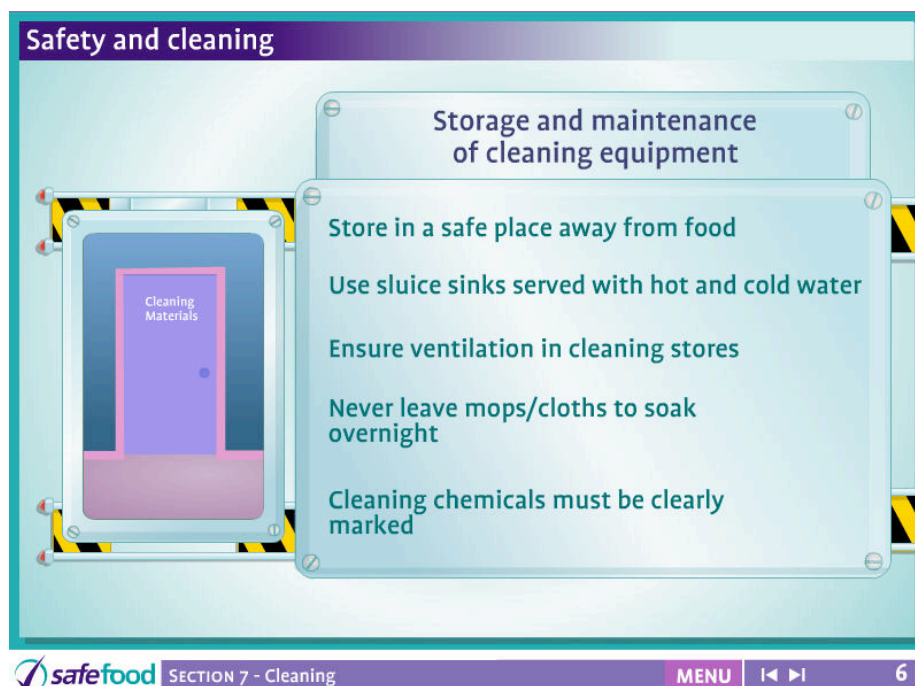
Ask the students where they would find the information required for points 1 and 2.

As good consumers they should know that the information would be found on the actual container in the section marked 'directions for use'.

1. Use the correct cleaning agent for the surface you are cleaning. Cleaning and disinfecting agents must be suitable for use in the food industry.
2. Use the correct amount/concentration, i.e. follow instructions on containers.
3. Do not mix cleaning agents. This could produce a harmful chemical reaction or result in two agents cancelling out each other.

4. Proper protective clothing must be worn when cleaning, e.g. overalls, gloves, facemasks, etc.

# Screen 6



## Storage & maintenance of cleaning equipment

### Screen description

This screen shows points on the storage and maintenance of cleaning equipment.

### Teacher

Ask the students to describe the ideal location of a storeroom for cleaning agents in the home and in the catering industry.

In the home all the cleaning agents should be stored together in one cupboard or press. If possible, small items of equipment should also be stored in the same place. This storage area should be well away from food to prevent chemical contamination of the food. (For the same reason food will not be packed in the same bag as cleaning agents when you visit the supermarket. Ask the students if they had ever noticed this.)

In a catering establishment the cleaning agents should be stored in a small store room that is shelved. If possible the equipment for cleaning should also be close at hand. Toilet rolls, paper

napkins and hand towels may also be stored in the same area.

Always store cleaning agents and equipment in a safe place where they cannot come into contact with food.

Sluice sinks must be provided to clean and disinfect mops, brushes, cloths etc., as these items become contaminated from usage. Never use the sink in the food room.

Sluice sinks must be supplied with hot and cold water. Mops and cloths must be washed with hot water and detergent, soaked in disinfectant for an appropriate length of time, wrung out and left to dry. Never leave mops/cloths soaking overnight. The disinfectant wears off and bacteria can multiply overnight.

Ventilation is required to remove foul air from the cleaning store and to bring in a fresh air supply. Equipment used for toilets must not be used elsewhere. Cleaning chemicals must be clearly labelled or marked and never stored in food containers.



# Screen 7



## Cloths

### Screen Description

The screen shows different cloths that might be used for cleaning.

### Teacher

Explain to the students that cloths are a common source of contamination.

### Cloths

Cloths are a common source of contamination – for this reason, single use disposable cloths are recommended

Make sure any cloths you use are clean and fit for the purpose

Different cloths should be used for different areas

- Tea towel/chef's cloth for holding hot items

### Single use cloths

- Single use cloths for wiping surfaces, mopping up spills, wiping hands and wiping sides of dishes before serving



# 8 Screen



## Systematic Cleaning

### Screen description

This screen outlines the steps involved in cleaning.

### Teacher

Ask the students to point out the similarities in this cleaning sequence with other cleaning sequences, e.g. washing clothes in a washing machine or washing hair.

The only difference would be that the disinfectant would be replaced with conditioner.

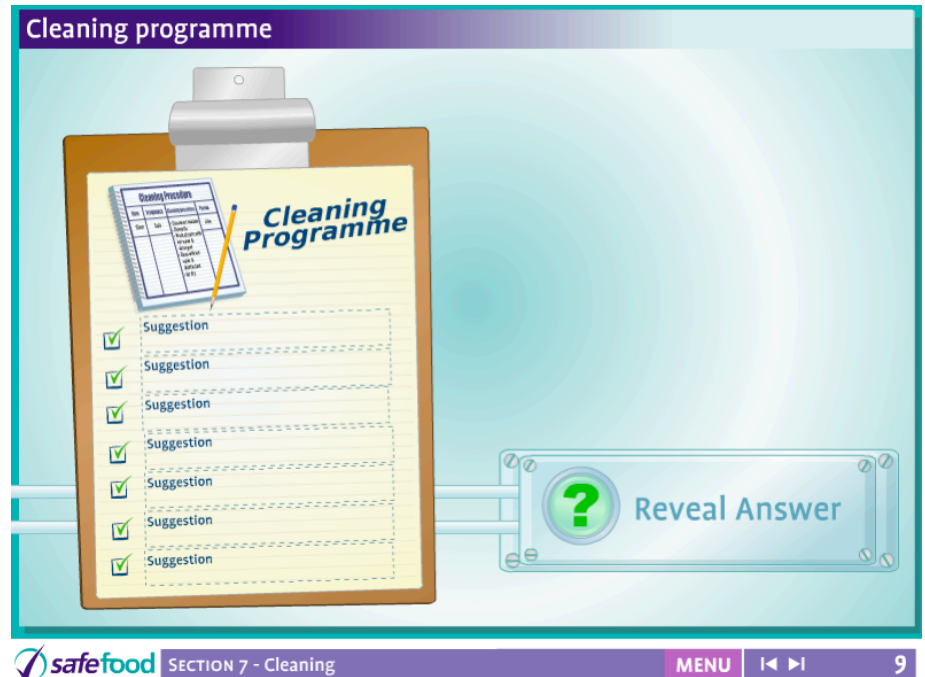
### Cleaning stages

Four stages are:

1. **Prepare** – remove loose and heavy soiling
2. **Clean** – Wash with hot water and detergent
3. **Rinse** – with clean hot water to remove any traces of detergent or dirt

4. **Disinfect** – Use chemical disinfectant and leave it on for the correct contact time

# Screen 9



## Cleaning programme

### Screen description

Interactive screen for comparing points.

### Teacher

Enter the students' suggestions in the spaces on screen. When you're ready click the 'Reveal' button to see a definitive list.

### Cleaning programmes

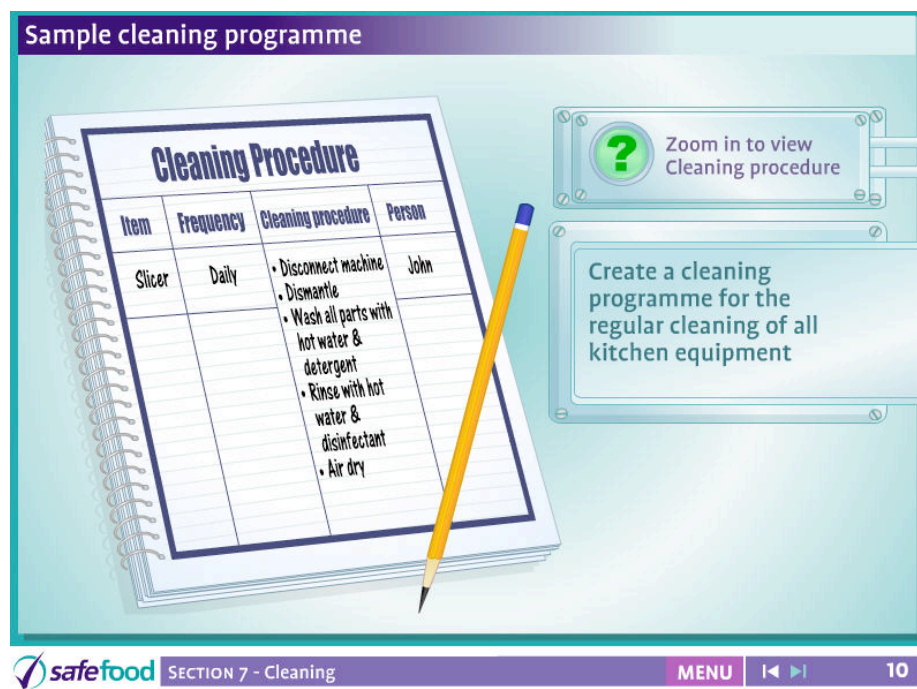
To be effective, cleaning must be planned. This is accomplished by preparing cleaning schedules/cleaning programmes. Such programmes ensure that all parts of the premises are cleaned.

The NSAI "Hygiene in the Catering Sector" standard 340 gives specific requirements with regards to the structure and content of a suitable cleaning programme for catering premises

The programme/schedule is a written roster which lists:

1. What cleaning has to be done (i.e. all equipment, utensils etc. on premises to be listed)
2. How often
3. What cleaning agents and concentrations are to be used
4. Procedure for cleaning
5. Safety instructions to be followed
6. Cleaned by whom
7. Checked by whom

# Screen 10



## Cleaning programme

### Screen description

Exercise screen.

### Teacher

Ask students to develop a cleaning plan for the room.

The classroom must be cleaned, including the floor, the blackboard, the tables and chairs.

The room is to be cleaned after break time, lunchtime and after school.

No cleaning agents are required except a brush and dustpan and blackboard wiper. If necessary a mop may be used to mop up any spills that occur. Three students will clean and share the tasks among themselves. Do not move the furniture around.

The three students should rotate daily to include everyone in the class. A prefect or class teacher should check the room.

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2. How often
3. What cleaning agents and concentrations are to be used
4. Procedure for cleaning
5. Safety instructions to be followed
6. By whom
7. Checked by whom

# Screen 11



## Dishwashing

### Screen description

This screen shows points on dishwashing using the dishwasher and the double-sink method.

### Teacher

Ask the students to make a comparison between dishwashing and hand washing of equipment at home.

Note this question may not be suitable for certain disadvantaged students unless there is a dishwasher in the school that they are familiar with.

### Hand washing

1. Suitable for delicate or unusually shaped items.
2. Ideal if there are only a small number of dishes.
3. No time delay involved therefore it is possible to have a minimum amount of utensils and crockery etc.
4. No great financial investment required.
5. Drawbacks: Can be slower.
6. Hot water is required either from a heated supply or by heating small quantities in an electric kettle.

### Dishwashing

1. Suitable for large numbers.
2. It keeps a kitchen looking tidy and uncluttered as the dirty items can be stored in the dishwasher until they are washed.
3. Faster for washing large numbers of items.
4. Drawbacks: Big financial outlay.
5. Costly electricity bills.
6. Large number of utensils and large amount of crockery required.

## **Mechanical dishwashing**

1. Detergent is normally automatically fed into the machine, if not, manufacturer's instructions are followed.

2. The first cycle is the wash cycle where the detergent removes food, grease and dirt from the dishes.

The temperature should be over 46°C but less than 63°C to prevent food being baked onto dishes.

3. The second cycle is the hot rinse cycle (temperature above 82°C). The detergent is removed and the dishes are disinfected.

4. The dishes are air dried and stored.

It is important to ensure the machines are properly maintained to ensure:

- a) jets are not blocked
- b) adequate temperature is reached
- c) dose rate
- d) rinse aid is dispensed

Temperature dials are normally fitted to the front of the machine to check that the correct temperatures are reached.