

# WJEC England Biology

## GCSE

### SP3.3 - Bacterial Growth

#### Flashcards



What do the areas of the clear zones indicate?



What do the areas of the clear zones indicate?

The larger the clear zone, the more bacteria killed, the more effective the antimicrobial agent.



State the aseptic techniques to be taken in this practical.



**State the aseptic techniques to be taken in this practical.**

Disinfect work surfaces and wash hands before and after use.

Work close to a Bunsen flame.

Pass equipment through a Bunsen flame to sterilise before using.



Why should the lid to the agar plate be taped loosely?



State the aseptic techniques to be taken in this practical.

To allow oxygen in to prevent the growth of harmful anaerobic bacteria.



Why should the petri dish be inverted during incubation?





Why should the petri dish be inverted during incubation?

To prevent condensation from forming on the lid and dripping down to the agar plate.



How should the area of the zone of inhibition be measured?



How should the area of the zone of inhibition be measured?

Place a piece of squared paper under the agar plate to measure the diameter and use  $\pi r^2$  calculate the area.



State a source of error in this practical.



State a source of error in this practical.

The zone of inhibition may not be a uniform circle so the area may be determined accurately.



Outline the procedure to test the effectiveness of different antimicrobial agents.



## Outline the procedure to test the effectiveness of different antimicrobial agents.

1. On the bottom of the agar plate, divide the plate into 4 sections and label with the antimicrobial agent to be applied.
2. Use sterile forceps to place a filter paper disc soaked in the antimicrobial agent in the center of each agar plate section.
3. Tape loosely and incubate at 25°C for 2-3 days.
4. Find the area of the clear zones.



State the controlled variables of this practical.





State the controlled variables of this practical.

Size of filter paper disc.

Concentration of antimicrobial agents.

Spread of bacteria (evenly throughout the agar plate).

