

Exercise walk-through

3.1

Communicable diseases and pathogens (4.3.1.1–4.3.1.5)

AQA · GCSE · Biology

Exercises 2.1·2.3

2.1 Name the four pathogen types. [4]

2.2 State two ways the spread of measles can be reduced. [2]

2.3 Name the vector of malaria and one control measure. [2]

3 Exam-style questions

Exercises 2.1·2.3

2.1 Name the four pathogen types. [4]

2.1 Viruses, bacteria, protists, fungi.

2.2 State two ways the spread of measles can be reduced. [2]

2.2 Vaccination of children; covering coughs/sneezes, hygiene, isolating cases.

2.3 Name the vector of malaria and one control measure. [2]

3 Exam-style questions

2.3 The mosquito; mosquito nets / preventing mosquito breeding.

Exercises 3.1·3.3

3.1 Explain how Salmonella is spread and how the UK controls it. [4]

3.2 TMV causes a mosaic pattern of discolouration on tomato leaves. Explain why infected plants grow poorly. [3]

3.3 A doctor reports a rise in gonorrhoea that no longer responds to penicillin. Explain why this happened. [4]

Exercises 3.1·3.3

3.1 Explain how Salmonella is spread and how the UK controls it. [4]

3.1 Bacteria are ingested in food, or food prepared in unhygienic conditions; bacteria and the toxins they secrete cause the symptoms; the UK vaccinates poultry against Salmonella, which controls the spread through poultry meat/eggs.

3.2 TMV causes a mosaic pattern of discolouration on tomato leaves. Explain why infected plants grow poorly. [3]

3.2 The discolouration reduces the chlorophyll-containing leaf area; so photosynthesis is reduced; less glucose is made, so growth is reduced through lack of food energy.

3.3 A doctor reports a rise in gonorrhoea that no longer responds to penicillin. Explain why this happened. [4]

3.3 Random mutations created resistant strains; the antibiotic killed only non-resistant bacteria, giving resistant strains a survival advantage; resistant bacteria reproduced and spread; repeated penicillin use selected for resistance each generation – natural selection.