

Solutions

Each answer shows the steps, then the **result**.

2.1

- Build-up of a toxin within one organism over its life

2.2

- Increase in a toxin's concentration up the food chain

2.3

- Top predators

3.1 B

- increase in concentration up the food chain

3.2

(a)

- Mercury is taken up by plankton and accumulates; small fish eat many plankton, big fish eat many small fish, so it concentrates (biomagnifies) at each level, reaching high levels in large fish

(b)

- Large predatory fish have the highest mercury levels, which are harmful to health

3.3

- If the toxin broke down quickly it would not persist long enough to accumulate and pass up the chain; persistence lets it build up at each level