Cell specialisation & differentiation

Q1. (2019)

03.8	any **one** from: (root hair cells) • are not exposed to light • do not photosynthesise	allow are underground	1	AO2 4.1.1.2 4.1.1.3 4.2.3.2 4.4.1.1

Q2. (2021)

A)

01.4	any **one** from: • (to cause) movement • to contract / shorten	 allow example of movement ignore to relax / expand ignore references to strength / energy / power	1	AO1 4.1.1.3 4.4.2.2

B)

01.5	(many) mitochondria to transfer / release (a lot of) energy	 allow (mitochondria) for respiration do **not** accept to produce / make / create energy ignore reference to the shape / strength of the cells	1 1	AO2 4.1.1.2 4.1.1.3 4.4.2.1

Q3. (2023)

01.2	has a tail (so) it can swim **OR** has (many) mitochondria (1) to transfer / release / energy (for sperm to swim) (1) **OR** has enzyme(s) (1) to penetrate into the egg (1) **OR** is streamlined (1) to swim faster (1) **OR** has 23 chromosomes (1) to produce 46 chromosomes in fertilised cell (1)	allow has flagellum allow so it can move / travel allow for energy do **not** accept energy is made / produced / created allow a correct adaptation (1) and linked explanation (1)	1 1	AO1 4.1.1.2 4.1.1.3