

Experimental design (CORMS)

Question	Mark scheme	Marks
1	C – bananas in container with and without tomato O – same variety of banana / same stage of ripeness / same colour at start / eq R – repeats with several bananas / several batches bananas / eq M1 – measure colour of banana (e.g. match on colour scale) / eq M2 – time <u>stated</u> to reach this colour S1 – same container around same number of bananas + tomato / eq S2 – same temperature / same light / same humidity / same other variable / eq	6
Total		6

Question	Mark scheme	Marks
2	C – plot / area of field with and without animal manure (fertiliser) O – same variety / species of cabbage R – repeats in several plots / in different fields, with same quantity of animal manure (in each plot) / eq M1 – measure mass of (whole) cabbage(s) M2 – after <u>stated</u> time period S1 – same size plots in same field / same number / spacing of cabbages per plot S2 – same season of year / same temperature (for all plots) during investigation / same light (for all plots) during investigation / same watering (for all plots) during investigation / same source for animal manure / eq	6
Total		6

Question	Mark scheme	Marks
3	C – milk samples with and without peaches / fruit O – same type of milk / same starter culture / eq R – repeats with several batches of milk + starter / eq M1 – measure standard end point for setting of the yoghurt (e.g. measure of thickness / viscosity described) / eq M2 – time to reach the end point (<u>stated</u>) S1 – same volume of milk + starter / same mass fruit / eq S2 – same temperature / same for other conditions (e.g. type of vessel used / same light / same amount of stirring or not stirred) / eq	6
Total		6

Question	Mark scheme	Marks
4	C – students with or without a dark bag over the head O – same student tested both ways / members of pair swap activity / eq R – repeats by same student several times / different students doing the activity (with or without the dark bag) / eq M1 – time taken for student to start running / response time M2 – combine results from several pairs of students / eq S1 – students of same age / same distribution of sexes / similar mass / similar height / eq S2 – whistle blown same loudness / same pitch / same length of time / same type of stopwatch for recording (reaction) time / eq	6
Total		6