



Grade 8 – Form B

Task 1 – Pirate Bay

Question 1

Key – luciferase gene (#2)
luciferase protein (#3)
light production trait (#1)

Question 2

Key – B

Question 3

Key – A, C, E

Question 4

Key – A

Question 5

Part A Key – A

Part B Key – D

Question 6

Part A Key – A

Part B Key – C

Task 2 – Sculpture Setup

Question 1

Key – A large arrow pointing up and a small arrow point down. These can be in either box A or D. Boxes B and C contain either two large arrows or two small arrows pointing in the opposite directions.

Question 2

Part A Key – D

Part B Key – 490

Question 3

Key – B

Question 4

Part A Key – D

Part B Key - B

Question 5

Part A Key – 100

Part B Key – 25

Part C Key – 20

Question 6

Key – The sculpture could be safely assembled, then placed into position using the robot. Using the data collected during the experiment shows that the resulting acceleration from the assembled sculpture is low enough that the sculpture will not be damaged by the acceleration.