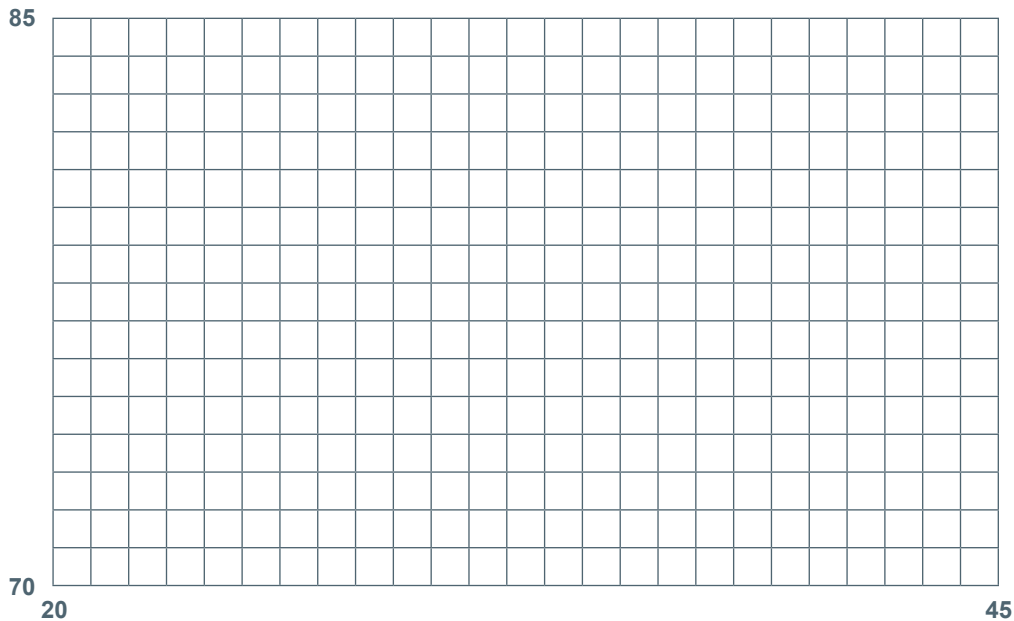


TUNNELWORKS

KS3 MATHS LESSON 2 WORKSHEET

THE RIGHT DIRECTION: TRIANGLES AND GRADIENTS

Design engineers note:



Challenge 1: Plot your map

Use these co-ordinates for each location

38 83 Abbey Mills Pumping Station

21 79 Acton Storm Tanks

30 78 Albert Embankment foreshore

31 80 Blackfriars Bridge Foreshore

34 79 Chambers Wharf

27 77 Cremone Wharf Depot

27 75 Falconbrook Pumping Station

22 78 Hammersmith Pumping Station

29 77 Battersea

24 75 Putney Bridge Foreshore

Challenge 2: Close-ups

What range of co-ordinates are needed for maps that would cover:

1. Chambers Wharf to Abbey Mills Pumping Station

2. Acton Storm Tanks to Heathwall Pumping Station

What locations are covered by a map with corners at 20 80 and 30 80?

Challenge 3: How far

Use Pythagoras' Theorem to estimate these distances along the tunnel:

1. Acton Storm tanks to Hammersmith Pumping Station

2. Chambers Wharf to Abbey Mills Pumping Station

3. The whole main Thames Tideway Tunnel from Acton Storm Tanks to Abbey Mills Pumping Station (work as a team!)