

Section 2 Part A – Drill speed graph

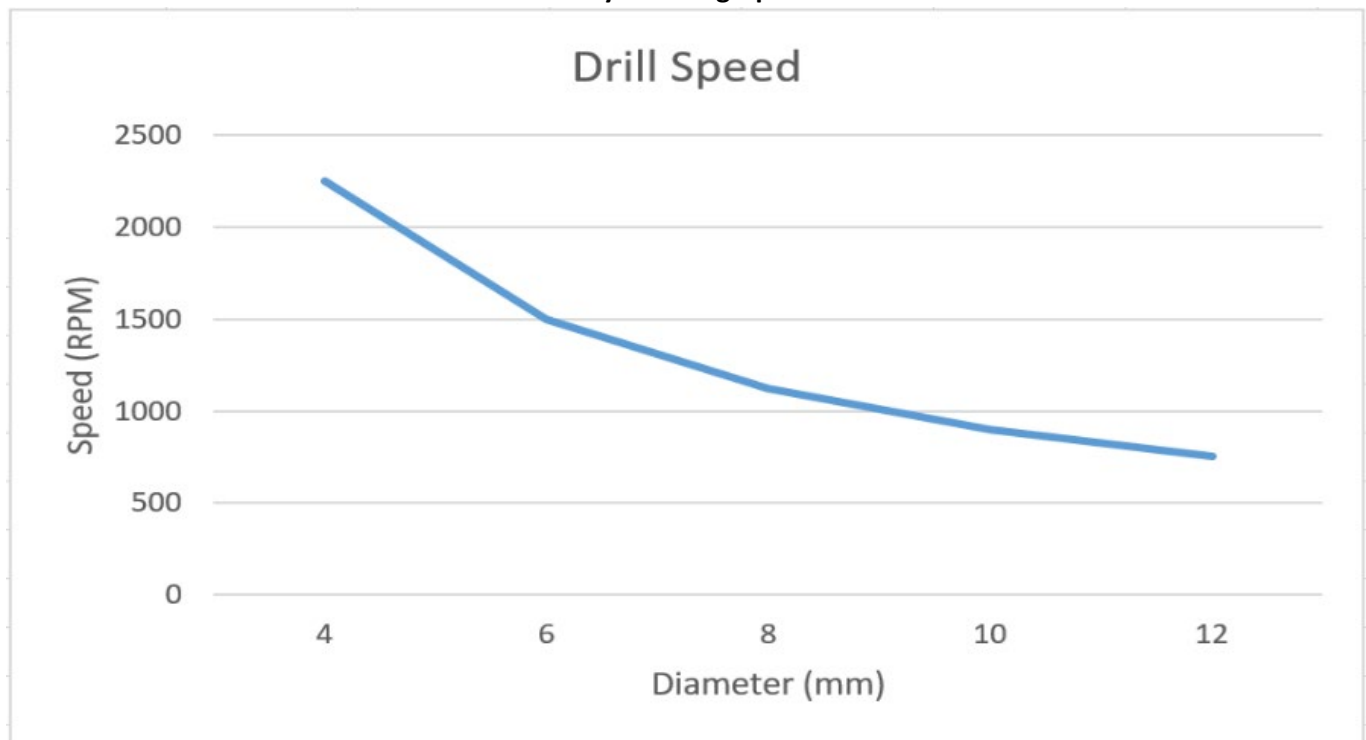
Student Instructions:

1. Enter the drill speed data into a spread-sheeting program such as Microsoft Excel
2. Generate a line graph showing Drill Diameter vs Speed
3. Take a screenshot of the graph
4. Paste your completed work below where indicated
5. Answer associated questions

Drill Speed Data

Drill Diameter (mm)	Speed (RPM)
4	2250
6	1500
8	1125
10	900
12	750

Paste your line graph HERE



1. What do you notice about the speed as the diameter increases?

The speed must decrease

2. Estimate the speed used for a 20mm drill bit

Answers will differ but should be around 450

3. Calculate the Drill Speed RPM used for a 20mm drill bit using the following formula where: x = drill bit size and y = Drill Speed RPM

- $x = \frac{9000}{y}$
- $20 = \frac{9000}{y}$
- $20y = 9000$
- $y = \frac{9000}{20}$
- $y = 450$
- Drill Speed RPM for a 20mm Drill Bit = 450

4. What was the difference between the estimate and actual speed (if there is any)?

Answers will differ