

Thistledown Garden Centre: forecast first, then invest

Student workbook | Pearson Edexcel A level Business (9BS0), Theme 3 | Original TBS three-lesson case

Over three lessons you advise the owner of a small garden centre. Lesson 1: use moving averages and a scatter graph to forecast sales, and judge how far the forecast can be trusted. Lesson 2: appraise two investment projects with payback, average rate of return and net present value. Lesson 3: test the results, hear the board's concerns and write a recommendation of about 180 words. You need a calculator, a ruler and a pencil.

Thistledown Garden Centre Ltd and every person, figure and quote in this case are fictional. This is original classroom practice, not an exam paper.

The business

Thistledown Garden Centre Ltd is an independent, family-owned garden centre on the edge of a market town. It sells plants, compost, garden furniture and gifts, and has a small tea-room. It employs 11 people (six full-time and five part-time). Ruth Calder is Managing Director and Ian Boothroyd is the part-time finance manager. Sales in Year 3 were £760,000.

Spring and early summer are the busiest weeks for plants, and the run-up to Christmas is the second peak. A larger garden centre opened 14 miles away in Year 2. Ruth wants to know where sales are heading and which of two projects to choose.

The two projects

Project	What it is	Cost now
Project 1: garden café	Extend the tea-room into a 40-seat café with a covered terrace, open every day, so that visitors stay longer and spend more.	£120,000
Project 2: glasshouse	Build a heated glasshouse and propagation area so that Thistledown grows its own bedding plants and pot plants instead of buying them in.	£150,000

Money available: £60,000 of retained profit plus a bank loan of £90,000 at 8% a year, so £150,000 in total. Only one project can go ahead.

Free sample

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Contents of the full pack

Lesson 1: Where are sales heading?

Lesson 2: Is the money worth it?

Lesson 3: Should Thistledown invest?

Student workbook and teacher guide, as PDF and as editable Word files.

The teacher guide has lesson plans, full worked answers and indicative guidance.

This sample is the cover and the first two pages of Lesson 1 of the student workbook. It contains no answers. The pages that follow are exactly as in the full pack.

Lesson 1: Where are sales heading?

Starter: smoothing the weeks

A three-period moving average adds three neighbouring values and divides by 3. Write each average against the middle week. The first is done. Bags of compost sold per week:

Week	Bags sold	Three-period moving average
1	135	-
2	150	143
3	144	
4	165	
5	162	
6	177	-

- a. Complete the table.
- b. Sales fell from 165 bags in week 4 to 162 in week 5. Does the moving average fall at that point? What does this suggest about the trend?
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-
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-
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Task 1: four-quarter moving averages (individual)

Thistledown's sales follow a yearly pattern, so use FOUR quarters. A four-quarter moving average adds four neighbouring quarters and divides by 4, so each average covers one whole year. Write each average against the THIRD quarter of its four (the first, 170.0, is against Y1 Q3). Do not centre the averages. Sales are in £000. Give answers to two decimal places where needed.

Quarter	Sales (£000)	Four quarters added	Four-quarter moving average (£000)
Y1 Q1	118	-	-
Y1 Q2	214	-	-
Y1 Q3	156	$118 + 214 + 156 + 192 = 680$	170.0
Y1 Q4	192		
Y2 Q1	126		
Y2 Q2	226		
Y2 Q3	164		
Y2 Q4	204		
Y3 Q1	135		
Y3 Q2	240		
Y3 Q3	172		
Y3 Q4	213	-	-

a. Complete the table (eight averages to find).

b. By how much does the moving average rise from the first (Y1 Q3) to the last (Y3 Q3)? What is the average rise per quarter?

c. Why does a four-quarter moving average smooth out the busy and quiet quarters?
