

# Inventory Manager

**Operational thinking. Real outcomes. Syllabus-aligned.**

## **What the tool does**

Inventory Manager is a plug-and-play simulation that helps students master stock control, production decisions, and operational efficiency. In a controlled, risk-free environment, students:

- Choose production methods (job, batch, flow)
- Set stock levels and reorder points
- Simulate customer demand over time
- Analyse trade-offs in cost, stock levels, and customer satisfaction

They receive real-time feedback through a performance dashboard and a badge-based achievement system (bronze, silver, gold) that tracks fulfilment rates, cost efficiency, and improvement over time.

## **How it works**

The simulation is structured into four core modules:

### **1. Stock Management**

Students decide how much inventory to hold and when to reorder. These decisions affect cost, availability, and waste.

### **2. Production Methods**

Students pick between job, batch or flow production—each with trade-offs in setup time, flexibility, and unit cost.

### **3. Demand Simulator**

Simulates customer orders over time (typically 6 weeks). Stock levels are updated in real-time against actual demand, showing overstocking, stockouts, and responsiveness.

### **4. Performance Dashboard**

After each run, students get feedback on:

- Demand fulfilment rate
- Storage costs
- Wasted units
- Stockout frequency

All data is saved to show progress and highlight decision-making patterns. Teachers can run multiple scenarios to show varied business pressures.

## **Why it works**

- Authentic trade-offs – It puts students in the role of an operations manager balancing real business tensions (cost vs customer service).
- Progressive complexity – Starts with basics (stock levels), then builds toward integrated planning (production methods + demand forecasting).
- Visual cause-and-effect – Students see how their decisions play out in real-time, reinforcing abstract ideas.
- Flexible scenarios – Teachers can vary the challenge level and focus, tailoring it to class needs.
- Clear performance targets – Badges offer both motivation and a simple way to track mastery.

## **What it teaches**

- Decision-making under resource constraints
- Operational efficiency and production strategy
- Quantitative analysis of data, costs, and outcomes
- Scenario planning and risk management
- Strategic thinking around inventory and demand forecasting
- Resilience and reflection through trial and error

Level	Exam Board	Topics Covered	How It Aligns
GCSE Business	AQA, Edexcel, OCR, WJEC, SQA, Cambridge	Operations Management, Resource Planning, Finance	Demonstrates stock control (buffer stock, JIT), production types, and the trade-offs in operational decisions
A-Level Business	AQA, Pearson, OCR, Cambridge	Operations Strategy, Inventory Control, Efficiency	Direct application of inventory systems, lead times, production planning, cost control, and real-time responsiveness
A-Level Economics	AQA, Pearson, Cambridge, IB	Resource Allocation, Production and Costs	Models efficiency and production choices, links to opportunity cost and real-world allocation of limited resources

### **What aligns it**

- Stock settings → links directly to JIT, buffer stock, reorder levels
- Production methods → job, batch, and flow production, as per all major specs
- Costs and waste tracking → supports operational finance and efficiency learning
- Simulation feedback → mirrors the kind of real-world evaluation expected in long-mark questions
- Scenarios → customisable for mixed abilities, differentiated learning, or stretch & challenge

### **What it supports**

- Better answers in operations and resource planning questions
- More confident use of data in exam scenarios
- Clear links between abstract theory and business application
- Higher engagement, especially in mixed-ability or hands-on learners
- A safe space to practise decision-making without real-world consequences

### **For teachers**

This is great because it's a ready-to-go way to teach inventory management, decision-making, and production strategy—without extra prep. You get immediate engagement, tangible results, and lesson-ready feedback tools.

### **For careers leads**

This is great because it builds essential workplace skills like efficiency, forecasting, planning and resilience—core to logistics, supply chain, manufacturing, and retail careers. It maps clearly to Gatsby Benchmark 5 (encounters with employers) through simulation of real roles.

### **For SLT**

This is great because it supports operational thinking across GCSE and A-Level business content, fits cleanly into curriculum maps, and raises attainment in topics that are often abstract or under-taught. It's easy to embed, scalable across year groups, and shows measurable student progress.

### **For headteachers**

This is great because it delivers high-impact learning with minimal staff training. It improves curriculum depth, student engagement, and exam performance in business and economics. It supports strategic goals around employability, real-world learning, and results.