NAME:	TEACHER NAME:

LEARNING OUTCOME 4

OCR ENGINEERING: REVISION GUIDE & HOMEWORK BOOK

R109

The impact of modern technologies on Engineering production:

- Automation
 - Increased output
 - ☐ Faster to Market
 - Reduced production times
- Quality
 - Consistency
 - Zero Defects
 - ☐ Right First time
 - Aluminium alloys

- Workforce
 - ☐ Smaller Workforce
 - ☐ Employee re-training
 - Changes in job profiles
 - Improved working conditions
- Costs
 - ☐ Initial Capital outlay
 - Savings in workforce costs
 - ☐ Reduced overall cost of production

- Digital communications
 - Internet research
 - Computer Aided Design (CAD)
 - Electronic communication of drawings
 - Video Conferencing
 - Just in Time
 - Inventory reduction
 - Automatic ordering systems
 - ☐ Stock management
 - Electronic transfer of data
- □ Global manufacturing
 - Global supply chain
 - Business benefits
 - Standardisation of processes and procedures









Eat . Sleep

D&T

Repea

Automation: OUTPUT

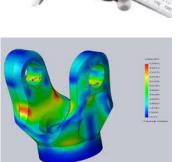
Definition of Automation:	Explain how automation can lead to increased output (larger numbers of products produced in less time)
Explain how automation can reduce production times	Explain how automation can lead to products being faster to market (from initial concept to product being sold in shops)

Automation: QUALITY

Definition of Automation:
(Re write you definition here)
Explain how automation can improve the quality of
products being manufactured









in produ		nprove	consiste	ncy

Explain how automation can ensure "Right First
Time" in product manufacture

Automation: WORKFORCE

Definition of Automation:	Explain how automation can lead the need for employee re-training and changes in job profiles
(Re write you definition here)	
(Ne write you definition here)	
Explain how automation can reduce the workforce needed	Explain how automation can lead to improved working conditions

Automation: COSTS

Difi:	BENEFIT COST	Explain how automation can lead to savings in workforce costs
(Re write you definition here)	automat.io Ocese	
Explain how automation can effect initial capital outlay		Explain how automation can reduce the overall cost of production
✓		
<u>x</u>	COSTS	\
X		

Digital communications:

Uses in research & Development

Definition of digital communication:	RESEARCH K
	The second secon
Explain how Internet research can be used in researc products	C A D

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LEARNING OUTCOME 4

Digital communications:

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Uses in research & Development

Definition of digital communication:	Explain how Video conferencing can be use research and development of products	ed in the
(Re write you definition here)		
Explain how electronic communication of drawings ca	can be used in the development and production of products	MAIL

Digital communications:

Materials supply and control

Definition of Just In Time JIT:					

Give and example of how Just In Time is use in manufacturing					

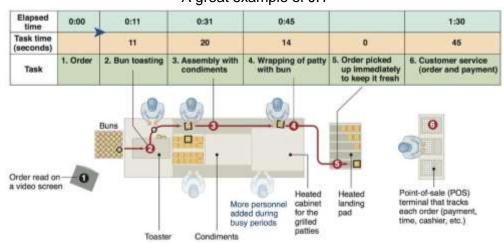




xplain how Just In Time can reduce inventory					

McDonald's Assembly Line

A great example of JIT



Explain how automatic ordering systems can aid

manufacturers with stock management

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Digital communications:

Automatic ordering systems

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Explain how automatic ordering systems can aid manufacturers with electronic transfer of data



Keep accurate check on stock level



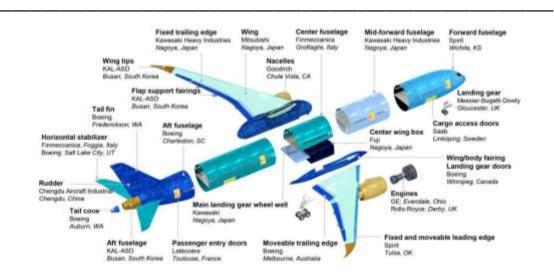
Track

ship out when required

Global Manufacturing: Global supply chain

Definiti	on of G	ilobal	supply	chain:	•		
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Explain how global supply chains can benefit businesses							



Global Manufacturing: Standardisation of process & procedure

Definition of standardisation:							

Give an example of how standardising processes or procedures could benefit manufacturing companies

