C3

Plan, Create and Present

CHAPTER ASSIGNMENT · 10 MARKS

Name _____ Class _____ No. _____ Date _____

Answer every question in the space given. Show your working. You may use the chapter page to help you.

Review, Think and activity questions from *Basic Science and Technology Textbook: Technology (Design and Technology), Mathayom 2* (หนังสือเรียนรายวิชาพื้นฐานวิทยาศาสตร์และเทคโนโลยี เทคโนโลยี (การออกแบบและเทคโนโลยี) ชั้นมัธยมศึกษาปีที่ ๒), Institute for the Promotion of Teaching Science and Technology (IPST, สสวท.), translated into English, for classroom use. The book has no exercise list, so the Check yourself and Chapter quiz questions are Guru Jazzy's own.

Review before the lesson (ทบทวนความรู้ก่อนเรียน)

R1 Name three properties of materials you learned about in M.1.

R2 Name one tool for each job: measuring, cutting, joining and drilling.

R3 How can you build something quickly, with the fewest mistakes?

Think about it (ชวนคิด)

T1 Namwan wrote her plan as a work schedule. Draw it as a flowchart instead: meet the shops, tell the students, measure the rubbish before, use the measures, evaluate, improve, report.

Activities from the chapter

3.1 **Plan the work.** From your design and model in Chapter 2, plan your work: the steps in detail, the time for each step, and who is responsible. You may use a flowchart or a schedule.

Step	Time (days)	Who is responsible
1		
2		
3		
4		
5		
6		

3.2 **Build it.** Carry out your plan. For a product, stick in or describe a photo of each finished part and the tools you used. For a method, describe each step briefly.

3.3 **Test the work.** Set test criteria that match your problem scope, then test.

Criterion	How we tested	Result	Evaluation and improvement
1			
2			
3			

End-of-chapter activity (กิจกรรมท้ายบท)

Activity Present all your results to the class.

(a) Your presentation topics, in order:

(b) The format you chose, and why:

(c) Questions, comments and suggestions from the audience:

Check yourself

1 In Non's first test the rubbish dropped 7 cm, 9 cm and 8 cm. Find the average. Did it meet the 12 cm design target? [2]

2 What went wrong in that test, and how did Non fix it? [2]

3 Give two safety rules for using a saw. [2]

4 Why can't some works, such as a building, be tested for real? What do engineers do instead? [2]

5 You present to a class of young children with only five minutes. Which format and media would you choose, and why? [2]

Chapter quiz

Q1 Why plan the work before you start building?

A	B	C	D
To use more material	To save time and make fewer mistakes	So you do not need to test	Because the teacher says so

Q2 In Non’s flowchart, what happens if the compressor fails the real-use test?

A. He paints it B. He stops the project C. He improves it and tests again D. He builds a new bin

Q3 Which saw is used for cutting fine patterns (fretwork)?

A. Hand saw B. Back saw C. Coping saw D. Bow saw

Q4 What should you wear when welding?

A	B	C	D
Shorts and sandals	Thick clothes, gloves and a face shield	Only goggles	A paper mask

Q5 A good test criterion should be...

A	B	C	D
Vague so anything passes	Clear, linked to the problem and measurable	Secret	The same for every project

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Q6 In the first test, the rubbish dropped 7, 9 and 8 cm. The design target was 12 cm. What was wrong?

A	B	C	D
The lever was too long	Plastic cups slipped through gaps in the plate	The bin was too small	Nothing was wrong

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Q7 The Rockwell hardness test measures...

A	B	C	D
How heavy a metal is	How deep a diamond tip dents the metal	How hot the metal gets	How long the metal is

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Q8 You present to young children with little time. What should you choose?

A	B	C	D
Long tables of numbers	A short, clear talk with lots of pictures	A 40-page report	No media at all

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End of assignment · Check your answers against the chapter at gurujazzy.com/subjects/it/sem-1/chapter-3-plan-create-and-present/