

AQA – Design & Technology

Preparing for the Mock

Mock Paper 1

2018

Mastering Section A

What you will need to revise

Open the attached document called: **2018 Sample Paper Revision List**

Note: The list is a guide of what each exam question is focused on
Tasks

1. Read through the list and RAG them as:

- **RED** - I know very little about this question
- **AMBER** - I have some confidence about this question
- **GREEN** - I can explain what this means to another person

2. You must gather research about the **RED** questions

Mock Paper 2018 Revision List	
Systems approach - Input, Process and Output	1. 1mk
4 types of forces	2. 1mk
Characteristics of ferrous and non-ferrous metals	3. 1mk
Scales of production, CAD and CAM	4. 1mk
Materials used for modelling	5. 1mk
Understanding the term Smart Materials	6. 1mk
Products disassembly, maintenance, manufacture and obsolescence	7. 1mk
Examples of thermosoftening and thermo-setting polymers	8. 1mk
Levers and pivots	9. 1mk
Examples of softwoods and hardwoods	10. 1mk
Advantages of natural and manmade textiles	11. 2mks
Properties of different papers and cards used for food packaging	12. 2mks
Benefits of renewable energy	13.1 2mks
Disadvantages of renewable energy	13.2 2mks
Understanding how to use ratios	13.3 2mks
Know the source for the 5 material groups	14. 5mks
Strengthening and reinforcing products made with the 5 material groups	15. 4mks
Understand the 5 scales of production	16.1 4mks
Understand how to manufacture a product made from of of the 5 material groups	16.2 5mks
Know the characteristics of 3 woods, metals, polymers, papers and textiles	17 2mks
Understand Fair Trade, the 6Rs, Ethical decisions when making a product	18. 10mks
Understand each of the letters of ACCESS FM	19.1 4mks
Evaluate a product against ACCESS FM	19.2 4mks
Understand and apply Ergonomics to a product	19.3 4mks
Understand and apply Anthropometrics to a product	20.1 4mks
Understand and apply Anthropometrics to a product	20.2 4mks
Understand percentages	21.1 1mks
Drawing pie charts, bar graphs and histograms	21.2 2mks
Using data from research to develop a product	21.3 3mks
Developing a standard product used by an adult for a child	22.1 8mks
Purpose of having a product specification	22.2 3mks
Modelling ideas	23.1 1mks
Purpose of modelling/prototyping	23.2 3mks
Drawing orthographic and isometric pictures	24 5mks
Nesting and tessellation of shapes to save materials	25.1 1mks
Calculating area of triangles and quadrilaterals	25.2 3mk

How to gather revision notes

Tasks

1. Look for all the **REDs** and put these into chunks of 4 or 5
2. Create a revision page for each question from that chunk: do this on paper rather than electronically as you probably won't look at this again
3. Gather research about each question and add the key points from this onto the paper

Questions 1-3

Question 5

Question 7

Mock Paper ONE - 2018 Revision List

Systems approach - Input, Process and Output	1. 1mk
4 types of forces	2. 1mk
Characteristics of ferrous and non-ferrous metals	3. 1mk
Materials used for modelling	5. 1mk
Products disassembly, maintenance, manufacture and obsolescence	7. 1mk
Levers and pivots	9. 1mk
Examples of softwoods and hardwoods	10. 1mk
Advantages of natural and manmade textiles	11. 2mks
Properties of different papers and cards used for food packaging	12. 2mks
Benefits of renewable energy	13.1 2mks
Disadvantages of renewable energy	13.2 2mks
Understanding how to use ratios	13.3 2mks
Know the source for the 5 material groups	14. 5mks
Strengthening and reinforcing products made with the 5 material groups	15. 4mks
Understand the 5 scales of production	16.1 4mks
Understand how to manufacture a product made from of the 5 material groups	16.2 5mks
Know the characteristics of 3 woods, metals, polymers, papers and textiles	17 2mks
Understand Fair Trade, the 6Rs, Ethical decisions when making a product	18. 10mks
Understand each of the letters of ACCESS FM	19.1 4mks
Evaluate a product against ACCESS FM	19.2 4mks
Understand and apply Ergonomics to a product	19.3 4mks
Understand and apply Anthropometrics to a product	20.1 4mks
Understand and apply Anthropometrics to a product	20.2 4mks
Understand percentages	21.1 1mks
Drawing pie charts, bar graphs and histograms	21.2 2mks
Using data from research to develop a product	21.3 3mks
Developing a standard product used by an adult for a child	22.1 8mks
Purpose of having a product specification	22.2 3mks
Modelling ideas	23.1 1mks
Purpose of modelling/prototyping	23.2 3mks
Drawing orthographic and isometric pictures	24 5mks
Nesting and tessellation of shapes to save materials	25.1 1mks
Calculating area of triangles and quadrilaterals	25.2 3mk

How to Revise

1. You need information on the topic being covered in the question. Get this from:

- Lesson notes (if you have them)
- Books, revision guides and cards
- Internet

You need information for each of the 6Ws:



2. Spend time reading the information

- Give yourself time to do this
- Avoid music and other distractions as you read
- Read from different sources (website 'A' says... whilst website 'B' says this...)

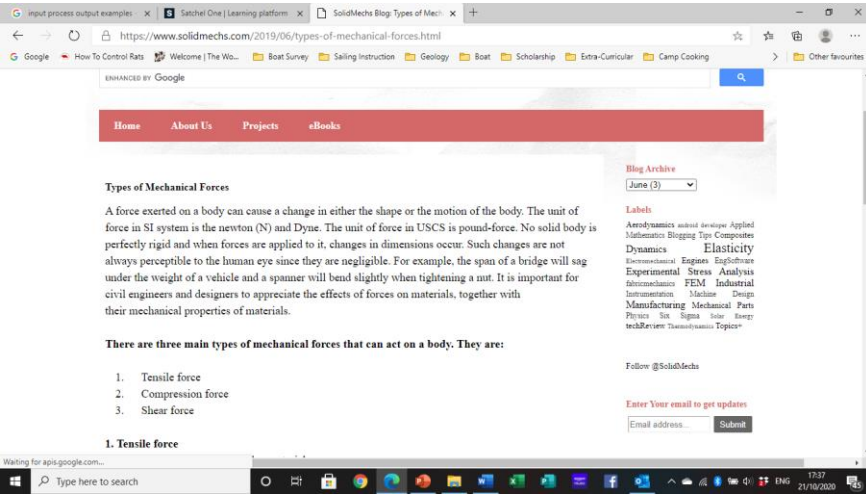
3. When you feel comfortable with the topic, do lots of different things with the information:

- Condense the information into shorter notes
- Create revision cards
- Write exam questions

Revising for Question 2 – Types of Forces

• Internet

You need information for each of the



6Ws:
20th October 20

Revision Notes

Revision Questions

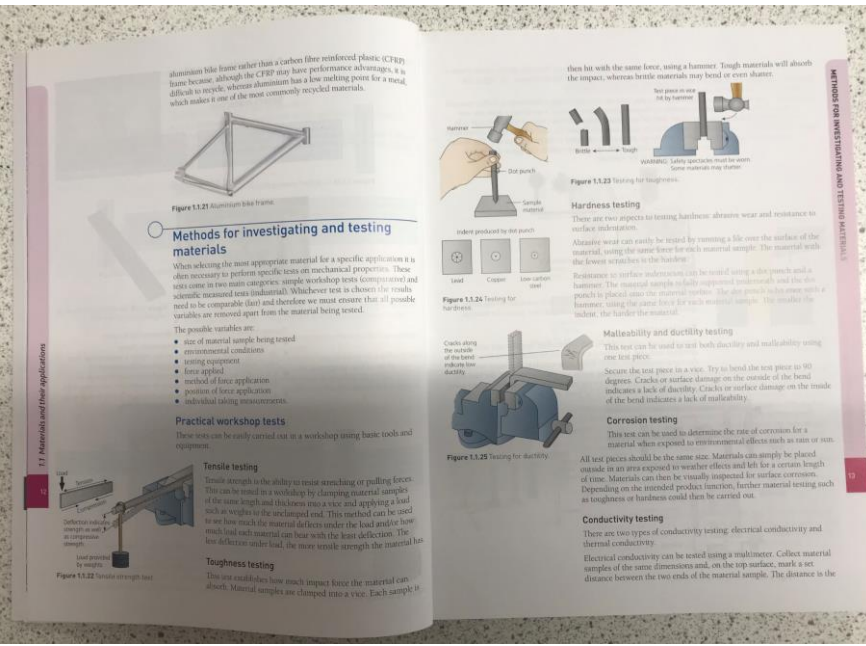
1. Explain what is meant by
 Compression
 Tension
 Shear
 Torsion
2. Compare Compression to
 Shear
 Tension
 Torsion

Compression

1. Define what is meant by
 Compressive force
2. List the **FOUR** types of force
 (PTO)

Answers

1. A Compressive force is when something, such as the ground, is being **squashed**.
2. The four types of force are: Compression, tension, torsion and shear



Practice answering an exam question

write a question for**Systems approach**..... which uses the following command words; use a maximum of 12 words

define

describe

explain

state

justify

evaluate

define

discuss

compare

The style of questions found in Section A

Open the attached document called: **8552 Sample paper 1 PG Online**

SECTION A - Core Technical Principles

Questions 1-10 are multiple choice questions. For multiple choice questions you should shade in one lozenge. If you make a mistake, cross through the incorrect answer and shade the correct response.

Tasks

1. Familiarise yourself

again with Section A:

- Multiple choice questions
- Short sentence answer questions

1: A designer has created a road safety system for children. It alerts other road users of their presence through a visual stimulus. What is the output in this system? [1 mark]

- ◇ Beeping sound
- ◇ Flashing lights
- ◇ Vibrating alert
- ◇ Waterproof audio device

11: State **two** properties that make technical fibres such as Kevlar, suitable for use in clothing for the emergency services. [2 marks]

Property 1. _____

Property 2. _____

Method for answer multiple choice questions

A. If you are 100% certain on the correct answer, then brilliant.

B. If you are unsure then here is the method:

1: A designer has created a road safety system for children. It alerts other road users of their presence through a visual stimulus. What is the output in this system? [1 mark]

- ◇ Beeping sound
- ◇ **Flashing lights**
- ◇ Vibrating alert
- ◇ Waterproof audio device

4. Now check your answer:
It can't be Beeping because that is not visible
It can't be vibrating as you feel that

3. Which is the most likely answer:
"Flashing light because you can see it"

1. Read the question again carefully and look for the clues...

2. What are the clues telling you:
"Visual means you can see it"

5. By thinking like a detective, you have illuminated the other answers as being wrong

Method for answer short answer questions

11: State **two** **properties** that make **technical fibres** such as Kevlar, suitable for use in clothing for the emergency services. [2 marks]

Property 1. Kevlar is very strong and therefore
will stop a bullet or knife

Property 2. _____

1. Read the question again carefully and look for the **clues...**

4. Now use the keyword and explain what OR why OR how it means

3. Mind map keywords that you know are linked to the clues:
Flexible, stiff, strong, tough, sewing, buttons...

2. What are the **clues** telling you:
"**Properties** are like characteristics and describe how a material behaves"
"**Technical fibres** means that they are modern and designed for a particular job"
"**Clothing** is worn and needs to be flexible"
"**Emergency services** get shot at"