

Year 8 Formal Exam – DT & Food Revision Guidance and Practice



Circulation Year 8 DT & Food Students
Title Y8 DT/Food Formal Exams - Revision Guidance and Practice
Purpose To provide revision information for Y8 Formal Exams and practice resources

- Paper 40 minutes

The papers will contain a variety of question types including:

- multiple choice
- short answer questions
- longer answer questions
- practical skill drawing question.
- You must answer all questions in the paper.

You will need: a black pen, pencil, ruler, a few colouring pencils and calculator for the exam.

Key Vocabulary to Revise
Make sure you understand and can explain these terms clearly:
Nutrients – What they are and why our bodies need them
Measurements – Why accuracy matters in DT
Mindmap – What it looks like and when to use it
Iteration – How designers improve products

Useful Revision Websites are linked the revision areas on each section of this revision resource.

Practice Questions

1. Write your own definition of each keyword by clicking on the links below and finding what each word means if you are unsure or do not know.

Nutrients https://www.thenational.academy/teachers/key-stages/ks3/subjects?utm_source=chatgpt.com –
Measurements https://www.thenational.academy/teachers/key-stages/ks3/subjects?utm_source=chatgpt.com –
Mindmap https://www.thenational.academy/teachers/key-stages/ks3/subjects?utm_source=chatgpt.com –
Iteration https://www.thenational.academy/teachers/curriculum/design-technology-secondary/units?utm_source=chatgpt.com –

Year 8 Formal Exam – DT & Food Revision Guidance and Practice



Circulation Year 8 DT & Food Students
Title Y8 DT/Food Formal Exams - Revision Guidance and Practice
Purpose To provide revision information for Y8 Formal Exams and practice resources

2. Use each word in a sentence about Design Technology.

Nutrients _____
_____ Measurement
s _____

Mindmaps _____
_____ Iteration _____

3. Draw a simple diagram to show what one of the words means.

You should revise:

- The order of the design process
- What a design brief is
- What a specification is
- Why designers create prototypes
- What evaluation means
- Why research is important
- What iteration means in practice
- Typical Stages of the Design Process

Year 8 Formal Exam – DT & Food Revision Guidance and Practice



Circulation Year 8 DT & Food Students
Title Y8 DT/Food Formal Exams - Revision Guidance and Practice
Purpose To provide revision information for Y8 Formal Exams and practice resources

- Research
- Design ideas
- Planning
- Making
- Testing
- Evaluation
- Improvements (iteration)

Practice Questions

Put these stages in the correct order: Evaluation, Research, Making, Design Ideas.

1. _____ 2. _____ 3. _____ 4. _____

Explain why a designer would test a prototype before manufacturing

<https://www.youtube.com/watch?v=rqOoErbxB6E>

What might happen if a designer skipped the research stage?

<https://www.youtube.com/watch?v=W-eqjMc1Efs>

Write 3 specification points for a reusable water bottle.

<https://www.youtube.com/watch?v=cumOouhqlts>

Why is evaluation important after making a product? <https://www.youtube.com/watch?v=W-eqjMc1Efs&t=5s>

Section 2: Food & Nutrition

You need to understand how a balanced diet works and the different food groups in the Eatwell Guide.

Revise:

- The main food groups

Year 8 Formal Exam – DT & Food Revision Guidance and Practice



Circulation Year 8 DT & Food Students
Title Y8 DT/Food Formal Exams - Revision Guidance and Practice
Purpose To provide revision information for Y8 Formal Exams and practice resources

- What percentage each group roughly makes up
- The role of:
 - Carbohydrates
 - Protein
 - Dairy
 - Fruit & vegetables
 - Oils/spreads
- The difference between nutrients and food groups
- Key Knowledge to Understand
 - Protein helps growth and repair.
 - Carbohydrates provide energy.
 - Fruit & vegetables provide vitamins and fibre.
 - Oils/spreads should be eaten in small amounts.

Practice Questions

1. Draw your own Eatwell-style plate and label the sections.

2. Why should oils and spreads only be eaten in small amounts?

https://www.nhs.uk/live-well/eat-well/food-guidelines-and-food-labels/the-eatwell-guide/?utm_source=chatgpt.com

Year 8 Formal Exam – DT & Food Revision Guidance and Practice



Circulation Year 8 DT & Food Students
Title Y8 DT/Food Formal Exams - Revision Guidance and Practice
Purpose To provide revision information for Y8 Formal Exams and practice resources

3. Give two examples of protein-rich foods. <https://www.nhs.uk/live-well/eat-well/food-guidelines-and-food-labels/the-eatwell-guide/> Check the “Protein foods” section.

4. Explain why athletes need carbohydrates. <https://www.bhf.org.uk/how-you-can-help/events/nutrition-for-sporting-events/carbohydrates-and-exercise> See the part about carbohydrates for exercise and glycogen stores.

5. If 90% of the plate is already used by other groups, how could you calculate what is left?

This is a simple percentages question: if you know the Eatwell Plate adds up to 100 %, then the remaining percentage = 100 % – total used.

For example, if 90 % is used by known groups, you subtract that from 100 % to find the remainder (10 %).

BBC Bitesize – Percentage’s practice

<https://www.bbc.co.uk/bitesize/topics/zf6gr82/articles/zt8d2p3>

Section 3: Measurements in Design

Accuracy is extremely important in DT.

Revise:

-10 mm = 1 cm

-Converting mm to cm

-Why measurements must be accurate

-Tools used to measure (ruler, set square, etc.)

Practice Questions

1. Convert:

Year 8 Formal Exam – DT & Food Revision Guidance and Practice



Circulation Year 8 DT & Food Students
Title Y8 DT/Food Formal Exams - Revision Guidance and Practice
Purpose To provide revision information for Y8 Formal Exams and practice resources

-50 mm into cm ____

-7 cm into mm ____

-125 mm into cm ____

Why is measuring accurately important when making a desk organiser?

<https://www.youtube.com/watch?v=VIYZS-kQrqA>

What could happen if you measure incorrectly?

<https://www.youtube.com/watch?v=0ISTXtwPuOU>

Measure 3 objects at home and record their size in both mm and cm.

https://www.youtube.com/watch?v=FYLHYAXv_ro

Section 4: Mindmaps & Research

A mindmap helps organise ideas at the start of a project.

Revise:

- Where the main topic goes
- What branches include
- Why mindmaps help creativity
- Why research comes before designing

Practice Questions

1. Draw a mindmap for “Eco-Friendly Water Bottle.”

2. Explain why research helps you design better products.

https://www.studysmarter.co.uk/explanations/art-and-design/design/design-research/?utm_source=chatgpt.com

Year 8 Formal Exam – DT & Food Revision Guidance and Practice



Circulation Year 8 DT & Food Students
Title Y8 DT/Food Formal Exams - Revision Guidance and Practice
Purpose To provide revision information for Y8 Formal Exams and practice resources

3. List 4 things you would research before designing a lunchbox.

https://www.ifst.org/lovefoodlovescience/resources/ks3-design-and-technology?utm_source=chatgpt.com

- ✓ The target customer – their age, preferences and what they need in a lunchbox
- ✓ Materials – what materials are suitable and why (e.g. food safe, lightweight)
- ✓ Size & function – how big it should be and how it will be used
- ✓ Environment – whether it is reusable, sustainable or recyclable

4. What makes a good mindmap clear and useful? https://www.interaction-design.org/literature/topics/mind-maps?utm_source=chatgpt.com

Section 5: ACCESS FM & Design Specification

ACCESS FM helps designers think about product requirements.

ACCESS FM stands for: Aesthetics, Cost, Customer, Environment, Size, Safety, Function, Materials

Revise:

- What each heading means
- How to write a specification point
- How to include a reason (using “so that...”)

Practice Questions

Design Brief: Design a reusable water bottle for Year 7 students.

Write one specification point (with a reason) for:

Customer: _____

Environment: _____

Size: _____

Function: _____

Materials: _____

Safety: _____

Go further with your learning...:

Year 8 Formal Exam – DT & Food Revision Guidance and Practice



Circulation Year 8 DT & Food Students
Title Y8 DT/Food Formal Exams - Revision Guidance and Practice
Purpose To provide revision information for Y8 Formal Exams and practice resources

Write 5 specification points for a sustainable desk organiser.
