TEST YOUR KNOWLEDGE
HEALTH & SAFETY

HEALTH AND SAFETY QUIZ



Health and safety is important for protecting yourself, your colleagues and your customers every day on site.

Think you know your hazards from your hard hats? Test your health and safety knowledge with these questions.

Q1	What does PPE stand for?	Ans.
A	Personal Plumbing Equipment	
B	Professional Protective Equipment	
C	Personal Protective Equipment	
D	Practical Protection Equipment	

Q3	Before starting work on site, you should always:	Ans.
A	Begin work immediately	
B	Read the risk assessment and site rules	
C	Ask another apprentice what to do	
D	Find somewhere to store your lunch	

Q2	Which item of PPE helps protect your eyes when cutting pipework?	Ans.
A	Gloves	
B	Safety glasses	
C	Ear defenders	
D	Safety boots	

Q4	Which of the following is considered a trip hazard?	Ans.
A	Safety boots	
B	Warning signs	
C	Trailing cables across a walkway	
D	High-visibility clothing	

Q5	If you spot an unsafe condition on site, you should:	Ans.
A	Ignore it	
B	Wait until the end of the day	
C	Report it to the appropriate person	
D	Tell your friends about it	

Q6 MATCH THE SAFETY SIGN

Match each sign category to its meaning:

SIGN TYPE:

A. Prohibition
B. Warning
C. Mandatory
D. Emergency Escape

Ans.

A. = ...
B. = ...
C. = ...
D. = ...

MEANINGS:

1. Indicates danger or caution
2. Provides emergency information
3. Tells you something you must do
4. Tells you something you must not do

Q7 HAZARD SPOTTING

Circle the FIVE hazards in the list below:

Safety glasses
Wet floor
Loose cable
Hard hat
Open toolbox in a walkway
First aid kit
Damaged step ladder
Safety sign
Oil spill



Q8 SCENARIO CHALLENGE

You arrive at a job and notice water has leaked across a floor where several people are working.

WHAT SHOULD YOU DO?

A. Walk around it and carry on
B. Ignore it because it isn't your responsibility
C. Warn others, report it and help ensure the area is made safe
D. Take a photo for social media

		Ans.			
Q9	Good housekeeping helps prevent accidents	True		False	
Q10	It is acceptable to use damaged tools if they still work	True		False	
Q11	Risk assessments help identify hazards before work begins	True		False	
Q12	Safety boots help protect against dropped objects	True		False	

Continued ›››

Q13	THINK LIKE A PLUMBER Name three hazards a plumber might encounter while working on site.
1	
2	
3	

Q14	Which one of the following correctly describes a yellow triangular sign?	Ans.
A	A warning sign	
B	A prohibition sign	
C	A mandatory sign	
D	An information sign	



Q15	Which of the following types of PPE is essential when clearing a blockage in an inspection chamber with drain rods?	Ans.
A	Ear defenders	
B	Knee pads	
C	Rubber gloves	
D	Dust mask	



Q16	A portable appliance test (PAT) is used to:	Ans.
A	Check the gas pressure on a blow torch	
B	Check the operation of a cartridge-operated tool	
C	Check the electrical safety of a portable tool	
D	Check the operation of a portable generator	

Q17	Which part of the body is most likely to suffer an injury during manual lifting?	Ans.
A	Back	
B	Legs	
C	Arms	
D	Hands	



Q18	If you get a minor burn on your finger, your first action should be to:	Ans.
A	Rub antiseptic cream on the affected area	
B	Cool the affected area using cold water	
C	Immediately burst the blister that forms	
D	Do nothing yourself; call the first aid officer and ambulance	

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TEST YOUR KNOWLEDGE
COMMON PLUMBING PROCESSES

COMMON PLUMBING PROCESSES QUIZ

From measuring and cutting pipe to testing systems for leaks, common plumbing processes are the essential skills every plumber needs to master.

Test your knowledge of measuring, cutting, joining and testing pipework with this quick quiz.

Q1	What is the main purpose of flux when soldering copper pipework?	Ans.
A	To cool the joint	
B	To clean the metal and help solder flow	
C	To strengthen the pipe	
D	To waterproof the joint	

Q3	What should be removed after cutting a copper pipe?	Ans.
A	Fittings	
B	Burrs	
C	Flux	
D	Solder	

Q2	Before cutting a copper pipe, you should always:	Ans.
A	Heat the pipe first	
B	Paint the pipe	
C	Measure and mark it accurately	
D	Apply flux	

Q4	Which process is used to join plastic waste pipe fittings?	Ans.
A	Hot welding	
B	Soldering	
C	Solvent welding	
D	Brazing	

Q5	Why is pressure testing carried out?	Ans.
A	To clean the system	
B	To identify leaks and check integrity	
C	To warm the pipework	
D	To remove scale	

Q6	Put the following plumbing tasks in the correct order.	Ans.
A	Deburr the pipe	
B	Measure the pipe	
C	Clean the pipe end	
D	Cut the pipe	
E	Apply flux	

Q7 Draw a line to match each process with its correct description.

PROCESS	Ans.	DESCRIPTION
Soldering		Joining plastic pipe and fittings using a chemical adhesive.
Pressure Testing		Joining copper pipe using heat and solder.
Pipe Bending		Forming pipe without using fittings.
Solvent Welding		Checking a system for leaks.

Q8 A copper pipe has been cut and fitted into a soldered joint, but water is leaking from the connection.

What are three possible reasons why the joint has failed?

1. .....

2. .....

3. .....

Continued ›››

Q9 Draw a line to match each task with its correct tool.

TASK	Ans.	TOOL
Cutting copper pipe		Basin wrench
Removing burrs		Deburring tool / reamer
Bending pipe		Stocks and dies
Testing pressure		Digital thermometer
Balancing radiators		Pressure test pump
Threading low carbon steel		Pipe bender
Loosening a tap backnut in a confined space		Pipe cutter

		Ans.			
Q10	Flux should be left on pipework after soldering.	**True**		**False**	
Q11	Plastic waste pipe can be joined using solvent cement.	**True**		**False**	
Q12	Deburring helps improve water flow and joint quality.	**True**		**False**	
Q13	Pressure testing is carried out before a system is commissioned.	**True**		**False**	
Q14	Pipework should be measured before it is cut.	**True**		**False**	

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TEST YOUR KNOWLEDGE
SCIENTIFIC PRINCIPLES

SCIENTIFIC PRINCIPLES QUIZ

Understanding the science behind plumbing helps you solve problems, work more efficiently and understand how systems behave in the real world.

Pressure, heat, expansion and gravity all play an important role in plumbing systems. Test your knowledge with these science-based challenges.

Q1	Water expands when it is:	Ans.
A	Cooled	
B	Frozen	
C	Heated	
D	Pressurised	

Q2	What force causes water to flow down a waste pipe?	Ans.
A	Pressure	
B	Gravity	
C	Friction	
D	Electricity	

Q3	Heat is transferred through a copper pipe mainly by:	Ans.
A	Radiation	
B	Evaporation	
C	Condensation	
D	Conduction	

Q4	What happens to water pressure when a tap is opened?	Ans.
A	It increases immediately	
B	It disappears completely	
C	It generally decreases	
D	It stays exactly the same	

Continued ›››

Q5 Draw a line to match each principle with its correct description.

PRINCIPLE	Ans.	DESCRIPTION
Gravity		The force exerted by water within a system.
Expansion		Transfer of heat through a solid material.
Conduction		The tendency of materials to increase in size when heated.
Pressure		The force that causes objects and water to move downwards.

Q6 Use the words in the word bank to complete the sentences.

Water flowing through a waste pipe is helped by ..... .

Copper pipes ..... when heated.

A boiler transfers ..... into the water.

Water systems rely on ..... to move water to outlets.

WORD BANK
gravity
heat
pressure
expand

		Ans.			
Q7	Copper is a good conductor of heat.	**True**		**False**	
Q8	Water expands when heated.	**True**		**False**	
Q9	Gravity affects waste water systems.	**True**		**False**	
Q10	Heat always moves from a colder object to a hotter object.	**True**		**False**	
Q11	Pressure helps move water around a plumbing system.	**True**		**False**	

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SPOT THE DIFFERENCE

Can you spot the 10 differences between these two images from this year's HIP Learner of the Year competition?



