

Student Work Book

ELECTRICAL

Meet the team!

Hello from the Stockton Riverside College Schools Team!
We want to let you know we are here to help you as restrictions start to ease in any way that we can. Remember that although your exams have been cancelled your place at Stockton Riverside College hasn't.



We know everyone is very keen to get started with us in September, and we can't wait to see you all then! We've developed these workbooks to help support you and help you fine-tune your knowledge and skills before you join us. Working closely with course tutors, we've come up with some tasks to help ensure you're up to speed once you start with us in September. We'll also be sending out more guides and top tips to get you started before you enrol!

Don't forget to follow us on our social channels for regular updates, competitions and campus news. Every Tuesday the Schools Team host weekly course takeover Q&A sessions on Instagram to answer any questions you may have! We hope you're as excited as we are for you to start your journey with us. If you have any questions, please get in touch via social media or check out our website for FAQs and latest updates relating to government guidelines.





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We hope to see you soon!

Firstly, all of us would like to congratulate you on the acceptance of your chosen course. We eagerly await to meet you in the coming months!

We continue to find ourselves in unfamiliar times, so let's focus on the future and the journey you will soon be beginning. This booklet contains several different activities to complete. The following tasks are aimed at preparing you for your new chapter. Please email your completed work to adam.howe@the-etc.ac.uk Good luck!



Teacher name: Gary Mickle Email Address: Gary.Mickle@stockton.ac.uk

Welcome to your Electrical Installations Summer Induction Pack. We have put together this worksheet that outlines 5 tasks for you to complete. These have been designed to help test your electrical knowledge. Try your hand at these tasks to see if you have a passion for the electrical industry.

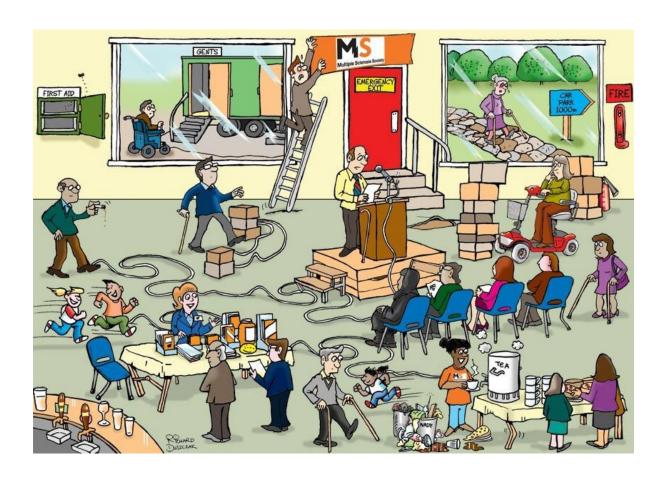




TASK 1

Health and Safety Awareness

How aware do you think you are of safe working? Can you identify at least 10?



TASK 2

Personal Protective Equipment

Pictured below are eight items of PPE. Can you match them to the risk they prevent and place your answer in Table B? An item of PPE can be listed more than once as some will reduce the risk in many different situations.



TABLE A

| 1 | Protection from falling objects |
|---|---|
| 2 | Prevents clothing being entangled in moving machinery parts |
| 3 | Prevents damage to hearing |
| 4 | Protects skin when lifting sharp objects |
| 5 | Prevents objects damaging eyes |
| 6 | Protection against cold and/or inclement weather |
| 7 | Makes the wearer more visible |
| 8 | Protection from dust |

TABLE B

| PPE Item | Risks | PPE Item | Risks |
|----------|-------|----------|-------|
| A | | Ε | |
| В | | F | |
| С | | G | |
| D | | Н | |



TASK 3

Questions

Using the internet, research the answers to the following questions and select the correct answer.

| 1) What small particles make up all matter? | | | | | | | | |
|---|------------------|--|--|--|--|--|--|--|
| a) | Dust | | | | | | | |
| b) | Rocks | | | | | | | |
| c) | Minerals | | | | | | | |
| d) | Atoms | | | | | | | |
| e) | Crystals | | | | | | | |
| 2) What atomic particles have a positive charge? | | | | | | | | |
| a) | Neutrons | | | | | | | |
| b) | Electrons | | | | | | | |
| c) | Protons | | | | | | | |
| d) | Photons | | | | | | | |
| e) | All the above | | | | | | | |
| 3) What atomic particles spin around the outside of the | | | | | | | | |
| nucleus? | | | | | | | | |
| a) | Neutrons | | | | | | | |
| b) | Electrons | | | | | | | |
| c) | Protons | | | | | | | |
| d) | Photons | | | | | | | |
| e) | All of the above | | | | | | | |
| 4) Electricity is the flow of . | | | | | | | | |
| a) | Neutrons | | | | | | | |
| b) | Electrons | | | | | | | |
| c) | Protons | | | | | | | |
| d) | Photons | | | | | | | |

All the above

e)



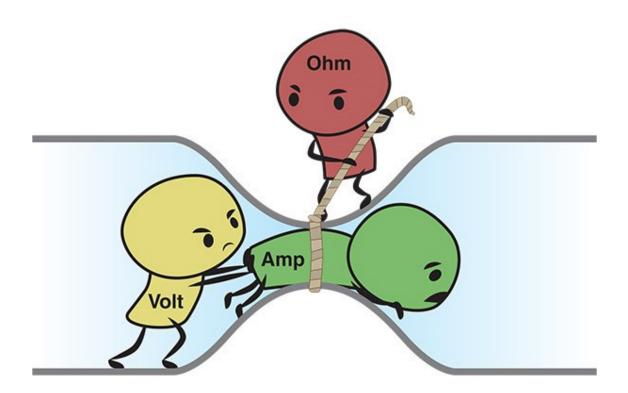
TASK 3

- 5) What part of an electric circuit completes the circuit and starts the flow of electricity when it is closed?
- a) Power Source
- b) Switch
- c) Load
- d) Conductor
- e) None of the Above
- 6) What part of an electric circuit are the wires that carry the electricity?
- a) Power Source
- b) Switch
- c) Load
- d) Conductor
- e) None of the Above

TASK 4

Principles of Electricity

The relationship between Resistance (red), Current (green) and Pressure/force (yellow) is pictured in an electrical conductor below.



Can you explain what is happening in the image?



TASK 5

If you were applying for an apprenticeship in Electrical Installations, use the space below to tell the employer why you should be given the job.

| | | _ |
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