

The TDA Tech Series ® [click here](#)

Presents

“Mechanics & Electricity”

What Is “The TDA Tech Series® ”?

[The TDA Tech Series®](#) is our platform for delivering technical and technological skills to our students through innovative partnerships. **#MultiplePathways**

Announcing the Mechanics & Electricity programme! (NOW OPEN TO TDA AND NON-TDA STUDENTS)!

In this latest installment of the TDA Tech Series®, we will be offering 20 Secondary School students **(BOTH TDA AND NON-TDA)** the opportunity to learn how to service an engine and a machine! Our students will learn:

1. the parts and components of an engine and a machine,
2. how to diagnose issues and service an engine and a machine,
3. how tyres work on a vehicle,
4. how to service and fully repair faulty vehicle
5. entrepreneurial skills from working directly with a business owner, and
6. how these skills can translate into a fulfilling and successful career.

The programme will involve the students fixing and restoring a 1991 Mercedes-Benz 230E that will be made available to them for this programme.



The course will be led by TDA Fellow, Ms. Masada T. Deconnick. Ms. Deconnick is the CEO of MTD’s Auto Electrical, an auto electrical business, servicing Mochudi and surrounding areas. Her business has been operating for more than 8 years, during which she has worked on all types of vehicles, trucks and machines. She holds a

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National Certificate in Auto-Electrical from Botswana College of Engineering and Technology. She believes in empowering women and has been running an organization that donates toiletries to the less fortunate for over 10 years. To learn more about Ms. Deconnick's journey in the auto mechanics industry, click [here](#); to listen to Ms. Deconnick's interview with Duma FM, click [here](#). To learn more about Ms. Deconnicks' business click [here](#); to learn more about the TDA Fellowship programme click [here](#).

Why Introduce Mechanics & Electricity @TDA?



In our daily lives, we rely heavily on engines and machines to do a number of things, from transportation, to tools to make our life easier and to toys for entertainment. As important as engines and machines are in our lives, most of us do not have the basic knowledge or skills to diagnose or fix any issues that may arise. @TDA we continually strive to give students the opportunity to learn skills and gain knowledge that can help

improve their lives and the lives of those around them, whilst supporting their everyday learning and opening up new opportunities for jobs or businesses.

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Further, we wish for students to internalise the understanding that just because an engine or a machine looks broken or appears old, it doesn't mean that it doesn't have value. Students should always first use their #Creativity when faced with troubleshooting an issue. We want to show students that through creative problem solving, they are able to identify and fix an issue, be self reliant and also engage in careers that have a positive effect on their community.

As always, Covid-19 prevention guidelines will be strictly followed.

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What Did TDA Students Learn in Mechanics and Electricity in 2021?

During the inaugural TDA Mechanics and Electricity programme in 2021, TDA Secondary School students worked on a DAF military vehicle to have it operational by the end of the programme. The students learned about parts and components of the vehicle, diagnosed it to find out what was broken and needed either fixing or replacement, requested for necessary parts, and fitted these onto the vehicle.



How Will it Work?

The programme is open to a total of 20 students from the Secondary School Campus. The programme will run three times a week, every Monday, Tuesday and Thursday from 14:00 to 15:30.



Under the guidance of Ms. Deconnick, the students will be working to fix some engine-based equipment set aside specifically for the purpose of enhancing the students' hands-on experience. The programme will introduce students to the theory and application of mechanics and electricity. Through this hands-on programme, they will gain the understanding of how engines

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work, how to identify issues and understanding of how to fix and maintain these. The application part of the programme will involve the students acting as mechanic's to fix and restore a vehicle, a 1991 Mercedes-Benz 230E (pictured on page 1) that will be made available to them for this particular purpose.



Students will learn about the different types of engines and machines, major components of an engine and machines and their uses, common issues that can arise and how to troubleshoot and fix them. Students will have one class of theory, one class of practicals, and one class for application of these every week, allowing them to apply their knowledge as they work on fixing the engine based machines located on campus. In this

interactive programme, students will learn how to identify and procure parts that they need, how to run a small business and how to collectively repair an engine and a machine with the guidance of our TDA Fellow, Ms. Deconnick.

These skills will be put into practice as they work on the vehicle that will be made available to them, restoring it and ensuring that by the end, the vehicle is able to start and move because of their help.

At the end of this programme, these students will obtain **a foundation on how engines and machines operate**, *an understanding of what it takes to start and run a business* and **new insight into a skill they can pursue as a career.**

How Do I Apply?

Interested ***TDA and NON-TDA Secondary School students*** are eligible to apply.

TDA STUDENTS	NON-TDA STUDENTS
Email a one page typed document to tdatechseries@thedowacademy.org OR	Email a one page typed document to tdatechseries@thedowacademy.org OR
Submit a handwritten letter to your class teacher. The application should describe why the student is interested in the programme, and how they would use the skills they learn to help their community.	Submit a handwritten letter to the TDA Secondary School Campus Reception, with "TDA MECHANICS AND ELECTRICITY" written at the top of the letter. The application should describe why the student is interested in the programme, and how they would use the skills they learn to help their community.
TDA PARENTS - Please click here to confirm consent for your child to participate.	NON-TDA PARENTS - Please click here to confirm consent for your child to participate.

*20 students will then be selected based on the quality of their applications **AND** the parents' completion of the parent consent form.*

The deadline for the application is **19 May 2022** and will be strictly enforced. For the selected students, there is a participation fee of P 1,000, that will be due by **26 May 2022**.

When Does it Start and How Much Does it Cost?

Mechanics & Electricity Programme	31 May 2022 - 4 August 2022 14:00 to 15:30 Mondays, Tuesdays and Thursdays
Venue	The Dow Academy Secondary School Campus
Cost	P1,000 per student*. <u>This is a one-time fee for the whole term.</u>