



**It's cool to be a  
21st century artisan**

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# Introduction

What do you want to do when you have finished school? It is important to start thinking about this now and to find out what you can do to increase your chances of getting a job.

Going to university is a good way to help you to get a job. But, even if you have a university qualification, it is not guaranteed that you will get a job. This is because there is a lot of competition for jobs, and there are more qualified people than there are available jobs. This is called a skills surplus.

The best way to have a chance of finding a job after you finish school is to choose a career where there is a skills shortage. A skills shortage exists when there are not enough people with a skill to meet the demand in the economy.

In South Africa there is a shortage of people with technical skills. These people are called artisans. Do you know what an artisan is? In this book we will tell you what artisans do and what you need to study if you wish to be an artisan. It may not be something you have considered but, if you want to get a job after finishing school, becoming an artisan may be just the thing for you!

## What is an artisan?

An artisan is a person who is taught a skill, usually using their hands, so that they know how to perform a specific function or make something special.



"There is something deeply satisfying in shaping something with your hands... It is an act of creation."

- Patrick Rothfuss

## Where do artisans work?

An industry is a group of businesses that do a similar thing. Some businesses take raw materials out of the earth or sea. Examples of these businesses include the mining, agricultural and oil industries.

Other businesses convert these raw materials into products that you can use. These businesses make up the manufacturing industry. The businesses that sell these products to you make up the services industry. Artisans work in almost every industry that you can think of!



INDUSTRY	ARTISANS
<b>Mining</b> Mines are needed to take out minerals and metals from inside the earth. Mining companies employ skilled artisans to operate special equipment to get the minerals and metals out from the earth.	<ul style="list-style-type: none"><li>• Rock Drill Operator</li><li>• Raise-Bore Operator</li><li>• Mining Operator</li><li>• Mineral Processing Operator</li></ul>
<b>Manufacturing and Engineering</b> The manufacturing industry turns raw materials into products like chemicals that are used to make soap, polish and paint, petrol, plastics, machinery and medicines. Factories employ artisans to build and operate all the special equipment needed to turn the raw materials into products.	<ul style="list-style-type: none"><li>• Chemical Plant Operator</li><li>• Boilermaker</li><li>• Fitter and Turner</li><li>• Metal Fabricator</li><li>• Welder</li><li>• Millwright</li><li>• Toolmaker</li><li>• Rigger</li></ul>

INDUSTRY	ARTISANS
<b>Construction</b> The construction industry builds the houses, hospitals, factories, offices, mines, highways, roads and airports that we need to live and work. Construction companies employ skilled artisans to make sure that the buildings are safe and comfortable places to live and work in.	<ul style="list-style-type: none"> <li>• Draughtsman</li> <li>• Crane Operator</li> <li>• Electrician</li> <li>• Plumber</li> <li>• Plasterer</li> <li>• Carpenter Joiner</li> <li>• Glazier</li> <li>• Air-Conditioning Mechanic</li> </ul>
<b>Automotive</b> The automotive industry makes the cars, buses, trucks, airplanes, trains and other large vehicles needed to transport people and goods from one place to another. Automotive companies employ skilled artisans who build the vehicles, make sure that the vehicles are safe to drive and repair damaged vehicles.	<ul style="list-style-type: none"> <li>• Diesel Mechanic</li> <li>• Automotive Machinist</li> <li>• Vehicle Spray Painter</li> <li>• Wheel Alignment Technician</li> </ul>
<b>Consumer</b> The consumer industry uses manufactured products and natural materials, like wood and maize, to make goods that are sold directly to people. Consumer companies employ skilled artisans who use the products and materials to make the finished goods we need.	<ul style="list-style-type: none"> <li>• Chef</li> <li>• Pastry Chef</li> <li>• Tailor</li> <li>• Jeweller</li> </ul>



Some of the types of artisans listed above can work in many different industries. For example, boilermakers, electricians, crane operators, plumbers and mechanics can find work in the manufacturing, construction, mining, agricultural and automotive industries.

# What do these artisans do?

## 1. Mining

**Rock Drill Operator:** A Rock Drill Operator drills holes so that blasting experts can blow up hard rocks to make underground shafts and tunnels.

**Raise-Bore Operator:** A Raise-Bore Operator uses a special machine called a raise-borer to dig a round hole between two levels of an underground mine without blowing up the rock.

**Mining Operator:** A Mining Operator uses large machines to dig minerals and metals out of the earth.

**Mineral Processing Operator:** A Mineral Processing Operator uses special equipment to treat mineral ores until the final form is produced.

## 2. Manufacturing



**Chemical Plant Operator:** The Chemical Plant Operator makes sure that all the machines are working properly, and all the equipment is looked after properly, at a chemical plant.

**Toolmaker:** A Toolmaker makes the special tools that are used in factories.

**Boilermaker:** A Boilermaker makes large metal containers, called boilers that hold gas or liquid. These boilers are used to produce energy, for the factory, by heating the liquid or gas to make steam.

**Welder:** A Welder joins the metal parts together by heating the metals to make sure that two separate pieces are joined into one solid piece.

**Millwright:** A Millwright puts all the parts of a machine together and fixes the parts of the machine when they break.

**Rigger:** A Rigger uses cables and chains to attach and move heavy machines from one place to another.

### 3. Construction



**Crane Operator:** A Crane Operator controls the huge cranes used to lift and move all the heavy materials and machines used at a construction site.

**Draughtsman:** A Draughtsman uses the architectural designs to make detailed drawings of the plans for buildings and other structures.

**Electrician:** An Electrician wires the instruments that control the power, lighting and heating in buildings.

**Plumber:** A Plumber fits and repairs water, waste and drain pipes and other equipment to make sure that the water flows properly and gets drained away.

**Plasterer:** A Plasterer applies plaster to walls, ceilings and other structures.

**Carpenter Joiner:** A Carpenter Joiner makes and installs the wooden parts of a building such as window-frames, doors, floors, stairs and walls.

**Glazier:** A Glazier fits glass into window frames and door frames.

**Air-conditioning Mechanic:** An Air-conditioning Mechanic installs and fixes the equipment that heats and cools buildings.

### 4. Automotive



**Automotive Machinist:** An Automotive Machinist specialises in building and repairing the parts that make a vehicle's engine.

**Mechanic:** A Mechanic performs checks to make sure that a vehicle is in good driving condition and does repairs and services the vehicle.

**Vehicle Spray Painter:** A Vehicle Spray Painter uses special equipment to spray paint onto the body of a vehicle.

**Wheel Alignment Technician:** A Wheel Alignment Technician makes sure that a vehicle's wheels are aligned correctly so that the vehicle can be driven safely.

## 5. Consumer



**Chef:** A Chef runs the kitchen in hotels, restaurants and hospitals. A chef is in charge of ordering the ingredients and preparing the food.

**Pastry Chef:** A Pastry Chef works in a bakery or restaurant kitchen and specialises in making desserts, pies, breads, cakes, and other baked goods.

**Tailor:** A Tailor makes clothes such as suits, pants and jackets to fit individual customers.

**Jeweller:** A Jeweller uses precious minerals, like diamonds, and metals, like gold and silver, to design and make rings, bracelets and necklaces.

## What are the personal qualities of artisans?



Artisans are trained to be able to perform a specific function or make something special that not everyone can do. Employers and clients rely on artisans to be able to perform this function.

As we have seen, there are many different kinds of careers for artisans, from electricians and plumbers to tailors and jewellers. Even though these careers are very different from each other, there are some personal qualities that all artisans need, no matter what career they choose.

## **All good artisans need to be able to:**

### **Stay focussed**

Artisans need to be able to pay close attention and concentrate. Learning and practicing a special skill requires focus!

### **Perform tasks accurately**

Artisans must be able to work carefully to make sure that the job is done correctly. An artisan produces a part for a machine, and the part must be exactly right, or the machine won't work. A tailor who makes a dress for a client must make sure that the dress fits properly!

### **Keep trying!**

Learning to be a good artisan takes time. Even once you are a qualified working artisan, it is very important that you are able to keep working, even when the job is difficult or complicated!

### **Work well with their hands**

The job that an artisan does usually involves making something with their hands. It is very important that an artisan is good with working with their hands to be able to do their job successfully.

### **Be reliable**

Artisans provide an important skill. Employees and clients rely on the artisan to perform their function correctly every time! An artisan must be dependable and trustworthy.

### **Work well under pressure**

An artisan's job is often difficult and stressful. Working accurately and reliably takes time and effort. Artisans need to be able to keep concentrating, even when they are under pressure.

### **Solve problems**

An artisan's job is usually complicated and difficult work! If an artisan has a problem with a task, they must be able to find a solution to the problem, instead of always needing someone's help.

## Communicate well

An artisan must be able to listen carefully and express themselves clearly. When an employee or a client tells the artisan what they need, it is very important that the artisan understands exactly what needs to be done. When an artisan isn't sure, they must be able to politely and clearly speak to their employer or client to make sure that the job is done correctly.

# ARTISANS ARE IN DEMAND!

In 2014, the South African Government declared 2014-2024  
the decade of the artisan... Could you be an artisan?

Artisans work with things, data and ideas. Use these checklists to help you decide!

## THINGS

DO  
YOU  
LIKE?

YES  
NO



Fixing things



Operating machinery  
or equipment



Assembling parts



Using tools



Working in a team



Constructing things

## DATA

DO  
YOU  
LIKE?

YES  
NO



Coming up  
with new ideas



Investigating problems



Collecting information



Finding out  
how things work



Doing experiments



Analysing information

## IDEAS

DO  
YOU  
LIKE?

YES  
NO



Designing  
new things



Drawing



Inventing  
new products



Working with your  
hands to create  
new things

If you answered

YES

to most of these questions...  
you might want to think about  
becoming an artisan!



# Meet two artisans

## Sipho Ndlovu

### What is your job?

I am a qualified Plumber.

### How did you become a qualified Plumber?

When I was still in school I used to get part-time jobs as a Plumber's helper to earn some extra money. I liked the work so, after high school, I chose to study to become a Plumber. I enrolled at a TVET College in Johannesburg to get my National Certificate (Vocational) in Civil Engineering and Building Construction, specialising in plumbing.

When I completed my NCV, I registered with CETA (Construction Education and Training Authority) and they helped me to find a job where I could train under a qualified Plumber to get working experience. I trained with the Plumber for two years, and then I was able to write the Trade Test. Now I am a qualified Plumber.

### What kind of skills do you need to be a Plumber?

You must be good with working with your hands. It's also very important that you pay attention to small details because it's easy to make a mistake if you aren't careful.

### What kind of work do you do?

The company I work for works on construction sites. I read plans to understand where the plumbing is needed on the site. I cut and install pipes to make sure that geysers and sinks and toilets can be fitted properly. I make sure that all the pipes are working properly and that there are no blocks in the pipes.

### Where would you like to be in 5 years' time?

I am still working with the plumbing company where I did my training, but now my salary is better because I am qualified. I am also helping to train young people who want to become qualified Plumbers. In 5 years' time, I would like to be the boss of my own plumbing company.

### What advice would you give young people about finding the right job?

The most important thing is to do something that you love doing, because you will be doing that job every day. If you do something you love, then you will be happy, and you will become successful.

## **Nhlanhla Moyo**

### **What is your job?**

I am training to become a Chef.

### **How are you receiving your training?**

After I completed my matric, I applied to join the National Youth Chefs Training Programme, which is a Learnership run by the National Department of Tourism and the South African Chefs Association. The Programme runs for up to 3 years. I am in my second year of training now. During the first year, I completed my Certificate in Food Preparation and Cooking, and now I am completing my Diploma in Food Preparation and Cooking. If I do well this year, I am hoping to complete my Advanced Diploma in Food Preparation and Cooking next year. The Programme includes studying and working in a kitchen, so we can learn all the technical skills and practice these skills in a working environment. When I complete the Learnership I will be able to write the Trade Test and become a qualified Chef.

### **Why do you want to be a Chef?**

When I was young, I used to love to help my mother and my grandmother to prepare meals for the family. When I was in High School, I was told that there is a skills shortage of qualified Chefs in South Africa. I was very happy, because I wasn't sure what career I wanted to study after I finished my matric. I decided to find out as much information as I could about becoming a qualified chef and that's how I heard about the National Youth Chef Training Programme.

### **What qualities do you need to become a Chef?**

I think that an important quality is that you need to be able to handle working under pressure! Preparing food takes a lot of planning and arranging, so it is also very important that you can do many things at the same time. It is also very important to keep the kitchen clean! The most important quality is that you must love to cook, because being a Chef is hard work with long hours!

### **Where would you like to be in 5 years' time?**

I would like to work in a top kitchen after I qualify, and then my dream is to open my own catering business.

## **What advice would you give to young people about finding the right job?**

I think that the best advice I can give is to stay in school and follow your dreams. It's not always easy to find work when you are an adult, so the best thing you can do is make sure that you get as much education as you can and then find a way to train to follow your dream. My dream was always to be a Chef, and now I am on my way!

## **What type of artisan is right for me?**

The best way to make the right decision about what kind of artisan you would like to become is to find out as much information as you can about what choices and options are available.

This means that you need to do as much research as possible. Find out the answers to some very important questions, such as:

- What kind of work am I interested in?
- What are my personal strengths and skills?
- What type of career would suit my strengths and skills?
- What are the needs in my community?
- What kind of work fits in with my abilities, interests and values?
- What training do I need to complete to become an artisan?
- What subjects do I need to study if I want to be accepted into a course to complete my training to become a certified artisan?
- What courses are available?
- How much do the courses cost?
- Can I get any financial assistance for the cost of the course?
- How long will it take me to complete the training?
- Do I want to continue my education at a university after I have completed my training as an artisan?

Once you have the answers to these questions, you will be able to make the right decision about how to continue your studies to become a qualified artisan!

## **How do I become a certified artisan?**

If you want to become a certified artisan, you will need to pass a Trade Test. You have to qualify to be allowed to write the Trade Test.

There are 3 ways to get the qualification you need to be allowed to write the Trade Test.

## 1. Study at a TVET College

School-leavers who haven't yet been able to gain any working experience should register to complete a course at a TVET (Technical and Vocational Education and Training) College. TVET Colleges throughout South Africa provide training courses for many kinds of artisan careers.

### Entry requirements

If you have not passed matric, you can still register at a TVET College. If you want to start studying at a TVET College, before you finish your matric, you will need to have passed Grade 9 and you must get 40% for Pure Mathematics. You can get your Grade 12 equivalent/trade (artisan) qualification, which is called a National Certificate: Vocational (NCV) while you complete your artisan training. The training course will include studies and practical training that will teach you all you need to know about your specific career.

### Industry training

After you have received your NCV, you will then have to receive industry training in a workplace for 18 months.

### Trade Test

Once you have completed your NCV and industry training, you will be allowed to write the Trade Test to become a certified artisan.

## 2. Be an apprentice

If you want to train to become a specific kind of artisan with one special skill such as plumbing, welding, rigging or boilermaking, then you can become an apprentice. An apprenticeship is suitable for the type of artisan skill that requires a lot of practical training.

### Education requirements

You don't need to have a specific level of education to become an apprentice, but it helps if you have studied technical subjects that relate to the type of artisan you are training to become. Even though you don't need a specific level of education to become an apprentice, you must have an N2 Certificate to be allowed to write the Trade Test at the end of your apprenticeship.

## **Practical training**

An apprentice learns how to become a specific type of artisan by working under a qualified artisan at a company or workplace. This is called Competency Based Modular Training (CBMT). This type of training is necessary to be allowed to write the Trade Test when you have completed your apprenticeship. An apprentice must work full-time for up to 6 years as a “trainee artisan”. One of the benefits of becoming an apprentice, and working fulltime for such a long time, is that you will have a strong chance of permanent employment at the company where you trained once you become a qualified artisan.

## **Trade Test**

An apprentice artisan is allowed to write the Trade Test to become a certified artisan if they have an N2 Certificate and have completed their CBMT practical training.

## **3. Join a learnership programme**

A **learnership** is a learning programme where you earn a nationally recognised qualification. Learners on a learnership have to attend classes at a TVET College or training centre, as well as receive “on the job” training in a workplace. You don’t have to pay to join a learnership. Your training is free, and you will get paid to work while you are training! When you complete your artisan training by joining a learnership and receiving a national qualification, your career prospects are improved because you are then able to continue your education. Your national qualification will allow you to enrol for advanced courses at a TVET College or even a university degree.

Many large companies, such as Sasol, Transnet and Eskom, have Training Academies that train young people to become artisans. Each of these companies has their own entry requirements. You can find out more about these Training Academies from newspapers and from the internet. You can also contact companies, such as Sasol and Eskom, to find out what learning opportunities they have available.

## Entry requirements

Most learnerships require you to have a Grade 12: National Senior Certificate or NCV. For example, if you want to join a Sasol Learnership to train as a Chemical Plant Operator, you will need to have completed:

- National Senior Certificate with a 40% pass in the following subjects:
  - o Pure Mathematics
  - o English
  - o Physical Science or Engineering Science

OR

- N3 certificate with Pure Mathematics, Engineering Science, English and any other two subjects passed.

Once you have found a workplace with an employer to supervise your “on the job” training, you will complete a Learnership Agreement with your employer and the TVET College.

## Attending classes

You must attend classes at a TVET College. These classes include subjects that you need to understand to become a qualified artisan and you will complete projects to prepare you for your career as a qualified artisan.

## “On the job” training

An important part of your training to become an artisan is receiving training and experience in a working environment, being supervised by a qualified artisan.

## Qualification

When you complete the learnership, you will receive a nationally recognised qualification that is registered on the National Qualifications Network (NQF). This qualification allows you to continue with your education at university-level and earn a degree!

## Trade Test

When you have received your NQF qualification, you will be allowed to write the Trade Test and become a certified artisan!

## What's next for me?

Once you have successfully completed your training and passed your Trade Test, you are able to start your career as a certified artisan.

### **There are many choices available to a certified artisan:**

#### **Continue your education**

If you have completed a learnership and received a national qualification, it becomes much easier to continue your education by studying towards a more advanced qualification at a TVET College or even a degree from a university!

#### **Find a permanent job**

While you are still completing your training to become a qualified artisan, it is often difficult to find a job because employers want to be sure that their employees are able to properly perform the functions that they require.

As soon as you are a certified artisan, you are qualified to apply for any permanent job. There are hundreds of companies and businesses, in a wide range of industries, which employ artisans.

As we learned in the introduction to this booklet, there is a shortage of workers with technical skills and who are properly trained and certified. When you have successfully completed your training, passed your Trade Test and been certified, an employer can be sure that you are capable of performing the functions required, and your chances of getting the job become much higher!

#### **Become an entrepreneur**

Now that you are certified as having the necessary skills to perform your chosen function, you may decide that you would like to start your own business instead. Your status as a certified artisan means that customers can be sure that you are able to provide them with the service or product that they require. Starting your own business is not as simple as working for someone else. Many small companies close down within the first year of being in business. If you want to give your business the best chance to succeed, you need to make clear plans for the future and pay a lot of attention to the financial details that are needed to succeed. It is very important to do lots of research before you start your own business. Many banks offer advice to trained artisans on how to start their own business.

Remember that the best way to make the right decision is to find out as much information as possible. Ask as many questions as you can think of, and then make sure to find out all the answers!



For more information find us on Facebook or call (011) 706 6016