

Class::

Your Name:

Date:

Workshop

A workshop is a room or an area inside a building that includes tools or **machinery**. In short, all the hardware that are required for the **manufacture** or repair of (mostly) technical products. There are three categories of tools:

1. Hand tools : multi-purpose, simple devices, handy
2. Power tool : mobile tools, powered by electrical energy
3. Machine tools : more complex, stationary tools



For the most of the time a technician works at his work desk. That's a quite solid table, where he can store his tools in the drawers, fix workpieces by a vice, lay down objects onto the desktop, can lock-up parts inside lockers or collect small parts in utility boxes or store larger parts in shelves.

Task 1. What do you see here? Name the parts of the work desk that can be seen in the picture.



MITTE

Task 2. Read the dialogue between the two apprentices:

Stan	Oliver
Well, this my workbench. In these drawers here there are most of the tools I need for my job. Except for the tool I'm using today, of course. I put them out this morning when I got everything ready.	
Oh, in German they're called "Abisolierzange" – I think that's wire strippers in English. They're used for stripping electrical wires.	I know most of them, but what are these?
We get them from the tool shop. You get everything there. But we don't need any special tools today because we're making a warning light. So, the next step is soldering. Can you pass me the soldering iron, please?	Oh, right. What do you do if you need special tools?
Thanks. ...Okay, right. So now I'm soldering the LED	Sure! Here you are. And here's the solder and a screwdriver.

Task 3. Answer these questions:

- 1) Where are Stan's tools?
- 2) What does Stan do, if he needs special tools?
- 3) What are Laurel and Hardy making today?
- 4) What tools are they using?
- 5) What part is Stan soldering?

Class::

Your Name:

Date:

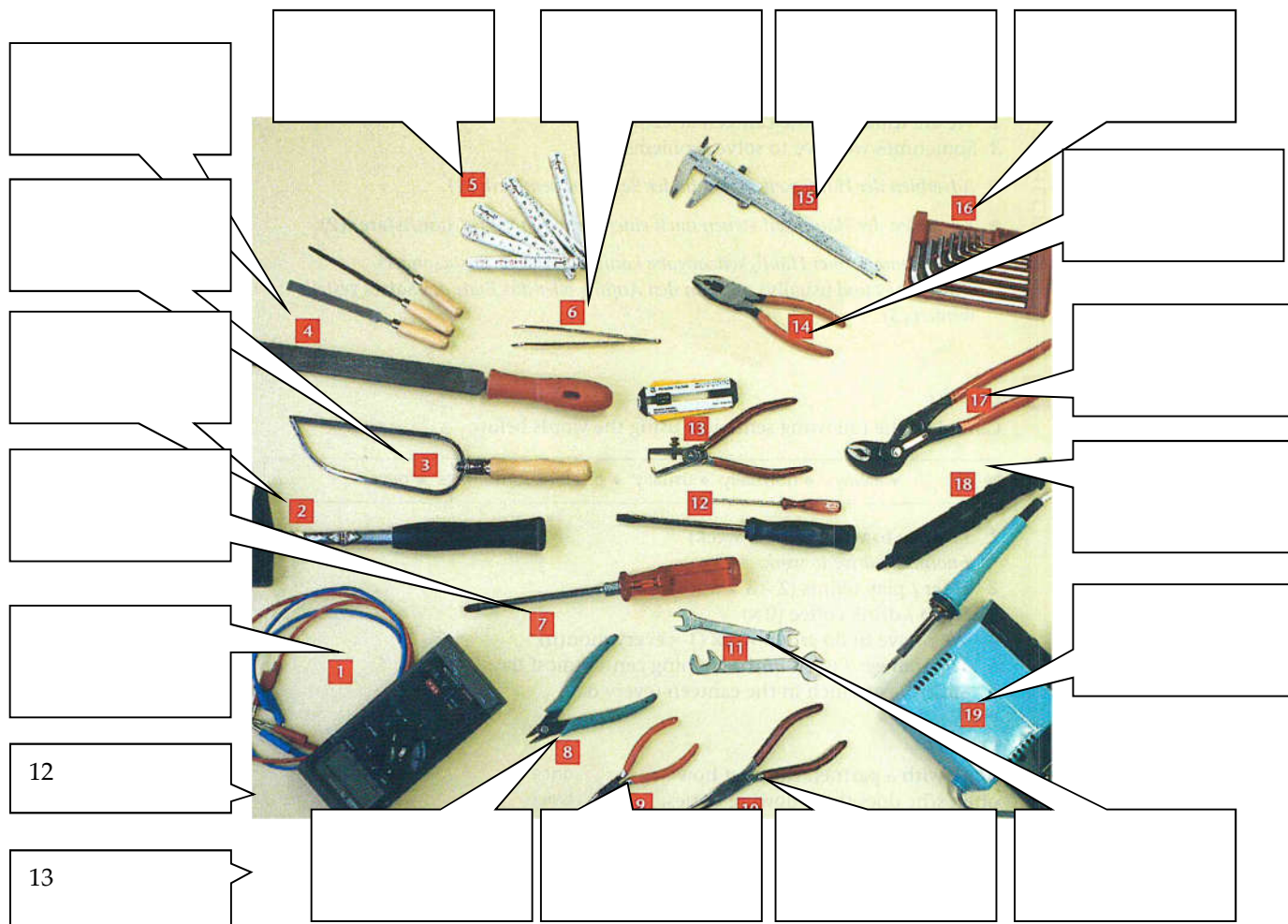
Hand Tools

For the most of technical standard work, technicians use **hand tools**. They are very applicable, easy to handle and can be carried away to any place where to be used. You can either store them in a **tool box** or they find their place in **drawers** of a **workbench**.

Task 4. Here are the most common hand tools; match the names to the pictures.

(slotted) screwdriver, universal pliers, desoldering pump, Phillips screwdriver, long-nosed pliers, multimeter, folding rule, round-nose pliers, tweezers, files, wire stripper, Vernier calliper, spanner, side-cutting pliers, hacksaw, Allen keys, soldering iron, hammer, combination pliers

MITTE



	Main Purpose	Tools
1	General Work	<u>slotted and Philipps screwdriver, hammer, files, tweezers, combination pliers.</u>
2	Electronics	<u>wire stripper, long- and round nose pliers, side cutting pliers, desoldering pump, soldering iron</u>
3	Metal Work	<u>Allen keys, universal pliers, spanners, hacksaw</u>
4	Measurements	<u>folding rule, multimeter, Vernier calliper</u>

Class::

Your Name:

Date:

Task 5. Say what the following tools are used for.

Start like this: “A **screwdriver** **is used for turning screws.**”

Screwdrivers	is/are used for...	bend	PCBs
A multimeter		cut	nuts and bolts
A hacksaw		tighten	voltage
Pliers		turn	wires
Spanners		hit	things
A soldering iron		smooth	screws
A hammer		solder	nails
Files		measure	metal

Power Tools Source: Dengarden.com

A **power** tool is a tool that is actuated by an additional **power** source and mechanism other than the solely manual labor used with hand **tools**. The most common types of **power tools** use **electric** motors

Task 6.

1) A **circular saw** is able to rapidly cut through timber up to 90 mm in thickness, and it is an essential power tool for cutting sheets of timber. A circular saw will give a more "square" cut than a jigsaw because the blade is more rigid.

2) An **SDS drill** and drill bit has several advantages. Firstly, removing and inserting the bit is easy. The acronym SDS originates from the German *steck, dreh, sitz*, meaning "insert, twist, fit"



3) An **angle** or **hand grinder** is used for cutting metal, plastic, roof sheeting, stone, bricks, concrete. You can also use it to grind these materials.

4) **Jigsaws** can be used to cut wood, metal, plastic, and other materials. Different types of blades are available to suit the material being cut. Since the blades used in a jigsaw are slim and narrow, this allows curved profiles such as circles to be cut in sheet material.

5) A (corded) **power drill** is used for drilling holes in metal, plastics, wood, brick, stone, concrete, glass, and tiles. Various types and lengths of drill bits are available depending on the material being drilled; HSS (High Speed Steel) bits for metal, flat bits for wood, and masonry bits for concrete.

6) This tool can be used for drilling holes in metal, plastics, wood, stones and also used as an electric screwdriver for driving screws. A **cordless drill**, like any other cordless power tool, has the convenience of freedom from a power cord. A cordless drill can also be used in awkward places, up ladders and on roofs without the inconvenience of the power flex catching in everything.

MITTE



Class::

Your Name:

Date:

Vocabulary:

English	Hint, Acronyms, Antonyms	German
<u>workshop</u>		Werkstatt
<u>machinery</u>		Maschinen (allgemein)
<u>to manufacture</u>		etw. herstellen
<u>hand tools</u>		(Hand-)Werkzeug
<u>power tools</u>		Elektrowerkzeug
<u>machine tools</u>		Werkzeugmaschinen
<u>work desk</u>		Werkbank
<u>drawers</u>		Schubladen
<u>desktop</u>		Werkplatte
<u>lockers</u>		Abschließbare Fächer
<u>shelves</u>		Regale
<u>utility box</u>		Sortierkästchen
<u>wire stripper</u>		Abisolierzange
<u>tool shop</u>		Werkzeugausgabe (Lager)
<u>DIY shop/magazine</u>	do-it-yourself	Baumarkt
<u>tool box</u>		Werkzeugkasten
<u>measurement</u>		Messung
<u>purpose</u>		Zweck
<u>to turn</u>		etw. drehen
<u>to cut</u>		etw. scheiden
<u>to tighten</u>		etw. festziehen
<u>to hit</u>		etw. schlagen
<u>to smooth</u>		etw. glatt Machen
<u>to solder</u>		etw. löten
<u>to measure</u>		etw. messen
<u>to grind</u>		etw. schleifen
<u>rapid</u>		schnell
<u>thickness</u>		Dicke
<u>timber</u>		Bauholz
<u>rigid</u>		starr
<u>advantage</u>	disadvantage	Vorteil
<u>blade</u>		Klinge, Schneide, Kante
<u>it suits</u>		es passt
<u>tiles</u>		Fliese
<u>available</u>		verfügbar
<u>masonry</u>	like: stone, marble, concrete	Mauerwerk
<u>ladder</u>		Leiter
<u>cordless</u>		kabellos

MITTE