

Engineering vocabulary list dictation and speaking

Worksheet 1 – Engineering list dictation

Without looking below, listen to your teacher reading out a list of words that is connected in some way. Try to guess the connection as soon as you can, but only guess if you are fairly certain or you will have to wait until everyone else has guessed before you can guess again.

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Add categories to each of these lists:

- (adjustable) spanner (= wrench), (Phillips) screwdriver, drill, hammer, pincers, pliers, soldering iron, spirit level
- (right angled/ regular/ irregular) triangle, circle/ round, diamond, ellipse/ oval, pentagon, rectangle, semi-circle, square
- (super)glue, bolt, joint, knot/ tie, nail, nut, screw, slot, solder, staple, welding
- (surface) area, breadth/ width, circumference, depth, diameter, flat, height, length, radius, thickness, volume
- AA (battery), bulb, charge/ recharge, circuit, cord/ lead, pill (battery), (two-pin/ three-pin) plug, socket, spark, transformer
- absorbed, analysed, arranged, boiled, caused, certified, confirmed, contained, covered, destroyed, disposed, dissolved, dragged, drained, dried, filled, flowed, glowed, hauled, idled, improved, misused, organised, poisoned, poured, recycled, refilled, reused, reversed, revolved, rolled, rubbed, scheduled, secured, signalled, simplified, solved, specified, spilled, spun, sprayed, squeezed, steered, stir, transferred, warmed, warned, worsened
- accelerated, activated, broadcasted, calculated, circulated, coated, complicated, conducted, constructed, converted, corroded, eliminated, estimated, experimented, generated, heated, ignited, illuminated, incinerated, injected, inserted, inspected, insulated, lasted, limited, melted, obstructed, painted, pointed, predicted, proceeded, protected, reacted, reflected, refrigerated, rejected, shifted, sorted, supported, tilted, transmitted, upgraded, ventilated, vibrated, winded
- accurate/ precise, arrange/ organise/ organised, careful, effective, enable, (energy) efficient, fire resistant, fix/ mend, flexible, gently, good value, hard wearing, high tech, multipurpose, pocket-sized, portable, properly, recycle, reinforce/ reinforced, reliable, shock resistant, simplify, sophisticated, support, thorough/ thoroughly, tidy, up to date, upgrade, water resistant/ waterproof/ watertight,
- acrylic, cellophane, PET, polythene, Styrofoam
- alarm, first aid kit, fuse, goggles, hard hat, hazard/ hazardous, heat detector, injure/ injury, smoke detector
- alloy, aluminium, bronze, copper, gold, iron, platinum, silver, stainless steel, tin, titanium
- anticlockwise (= counter-clockwise), at right angles, backwards, clockwise, curve/ bend, diagonal/ leaning, forwards, horizontal/ lying down, pointing up/ vertical, straight ahead
- apron, goggles, hard hat, lab coat, mask, rubber glove
- attached, compressed, crushed, equipped, flushed, leaked, pierced, piped, pressed, processed, pumped, reached, reinforced, reversed, slipped, splashed, stacked, stretched, unlocked, wiped

- axle, bicycle chain, clockwise – anticlockwise, cog/ gear, conveyor belt, dial/ knob, fan belt, pivot, pulley, roll/ roller, rotate/ rotation, screw, screwdriver, spin, steering wheel, twist
- back, base, bottom, cover, display/ screen, edge, exterior/ surface, front, handle, interior, lid, rim, side, stand, top
- ball bearing, bolt, bulldog clip, hinge, jack, nail, nut, padlock, paperclip, pliers, scissors, screw, spanner, tweezers, washer
- bin/ trash can, Hoover (= vacuum cleaner), polish, scrub, wipe, garbage/ rubbish/ trash
- blunt, broken/ out of order, bulky, burn out, careless, corrode/ corrosion/ rust, cracked, damaged, defect/ defective, deformed, dented, disorganised, downtime, dusty, fragile, hazard, idle, ineffective, inside out, insufficient/ lack of, jammed, leak/ leaky, loose, missing, misuse, nerd/ geek, obstruct/ obstruction, out of date/ outmoded, overheat, scratched, slip, spill, stuck, torn, trip (v), uneven, unstable, upside down, wasteful, wear out/ worn out
- bulb, fluorescent (strip), glow, illuminate/ illumination, lamp, laser pointer, LED, matt, projector, reflect/ reflection/ reflective, shine, torch (= flashlight), translucent, transparent
- bulky, compact, enormous/ huge/ gigantic/ massive, long, medium-sized, microscopic/ miniscule/ nano-scale/ tiny, narrow, pocket-sized, short, tall, thick, thin, wide
- bumpy, hard, ridged, rough, sharp, slippery, smooth, soft, spongy, squashy, sticky
- Bunsen burner, burn, flame, ignite/ ignition, incinerate/ incinerator, melt, solder, welding/ welding torch
- button, dial, handle, knob, lever, mouse, pedal, remote control, steer, switch, touch screen, touchpad
- cement, clockwork, corrosion/ rust, electricity, energy, equipment, friction, garbage/ rubbish/ trash/ waste, gas, gasoline (= petrol), hardness, heat, liquid, metal, oil, plastic, power, pressure, rubber, smoke, smoothness, softness, solder, string, wear and tear
- chip, CPU, hard disk, RAM, ROM, touchpad, USB port
- clockwork/ wind up, coal, electric, diesel, hybrid, internal combustion, mechanical, motor/ engine, (natural) gas, nuclear, pedal-(powered), solar(-powered), thermal, tide, transformer, wind
- cone, cube, dome, helix/ spiral, hemisphere, pyramid, sphere, tube
- cord/ lead/ wire, fluorescent lighting strip, hose, ladder, pole, rope, string
- deepen, enlarge, loosen, sharpen, straighten, tighten, weaken, widen, worsen
- drain, float, flow, flush, hose, leak, mop up, oil, paint, petrol, pipe, plug, pour, pump, sink, spill, splash, stir, U-bend
- external hard drive, monitor/ screen, mouse, scanner, USB stick
- goggles, overalls, pincers, pliers, premises, scales, scissors, tweezers,
- oscilloscope, protractor, ruler, scales, tape measure, thermometer, voltmeter,

Use the categories on the next page to help and to start checking your answers.

Check your answers as a class or with the answer key.

Test each other in pairs with the same listing activity, also using extra words that you can think of in those categories if you like.

- 2D shape
- 3 D shape
- assembly/ construction
- cleaning/ cleanliness
- components of a computer
- computer peripherals
- control
- dimension
- direction
- electricity
- heat
- light
- liquid
- long
- made from metal
- measuring
- metal
- negative
- part
- plastic
- plural
- positive
- power
- safety
- Simple Past has /d/ pronunciation
- Simple Past has /id/ pronunciation
- Simple Past has /t/ pronunciation
- size
- texture
- things you wear
- tool
- turns around
- uncountable
- verb based on an adjective

What are the differences between these things?

- square/ rectangle
- a vinyl bag/ a plastic bag (= carrier bag)
- wide/ large
- large/ bulky
- small/ compact

Answer key

- 2D shape – (right angled/ regular/ irregular) triangle, circle/ round, diamond, ellipse/ oval, pentagon, rectangle, semi-circle, square
- 3 D shape - cone, cube, dome, helix/ spiral, hemisphere, pyramid, sphere, tube
- assembly/ construction – (super)glue, bolt, joint, knot/ tie, nail, nut, screw, slot, solder, staple, welding
- cleaning/ cleanliness – bin/ trash can, Hoover (= vacuum cleaner), polish, scrub, wipe, garbage/ rubbish/ trash
- components of a computer – chip, CPU, hard disk, RAM, ROM, touchpad, USB port
- computer peripherals – external hard drive, monitor/ screen, mouse, scanner, USB stick
- control – button, dial, handle, knob, lever, mouse, pedal, remote control, steer, switch, touch screen, touchpad
- dimension – (surface) area, breadth/ width, circumference, depth, diameter, flat, height, length, radius, thickness, volume
- direction – anticlockwise (= counter-clockwise), at right angles, backwards, clockwise, curve/ bend, diagonal/ leaning, forwards, horizontal/ lying down, pointing up/ vertical, straight ahead
- electricity – AA (battery), bulb, charge/ recharge, circuit, cord/ lead, pill (battery), (two-pin/ three-pin) plug, socket, spark, transformer
- heat – Bunsen burner, burn, flame, ignite/ ignition, incinerate/ incinerator, melt, solder, welding/ welding torch
- light – bulb, fluorescent (strip), glow, illuminate/ illumination, lamp, laser pointer, LED, matt, projector, reflect/ reflection/ reflective, shine, torch (= flashlight), translucent, transparent
- liquid – drain, float, flow, flush, hose, leak, mop up, oil, paint, petrol, pipe, plug, pour, pump, sink, spill, splash, stir, U-bend
- long – cord/ lead/ wire, fluorescent lighting strip, hose, ladder, pole, rope, string
- made from metal – ball bearing, bolt, bulldog clip, hinge, jack, nail, nut, padlock, paperclip, pliers, scissors, screw, spanner, tweezers, washer
- measuring – oscilloscope, protractor, ruler, scales, tape measure, thermometer, voltmeter,
- metal – alloy, aluminium, bronze, copper, gold, iron, platinum, silver, stainless steel, tin, titanium
- negative – blunt, broken/ out of order, bulky, burn out, careless, corrode/ corrosion/ rust, cracked, damaged, defect/ defective, deformed, dented, disorganised, downtime, dusty, fragile, hazard, idle, ineffective, inside out, insufficient/ lack of, jammed, leak/ leaky, loose, missing, misuse, nerd/ geek, obstruct/ obstruction, out of date/ outmoded, overheat, scratched, slip, spill, stuck, torn, trip (v), uneven, unstable, upside down, wasteful, wear out/ worn out
- part – back, base, bottom, cover, display/ screen, edge, exterior/ surface, front, handle, interior, lid, rim, side, stand, top
- plastic – acrylic, cellophane, PET, polythene, Styrofoam
- plural – goggles, overalls, pincers, pliers, premises, scales, scissors, tweezers,

- positive – accurate/ precise, arrange/ organise/ organised, careful, effective, enable, (energy) efficient, fire resistant, fix/ mend, flexible, gently, good value, hard wearing, high tech, multipurpose, pocket-sized, portable, properly, recycle, reinforce/ reinforced, reliable, shock resistant, simplify, sophisticated, support, thorough/ thoroughly, tidy, up to date, upgrade, water resistant/ waterproof/ watertight,
- power – clockwork/ wind up, coal, electric, diesel, hybrid, internal combustion, mechanical, motor/ engine, (natural) gas, nuclear, pedal-(powered), solar(-powered), thermal, tide, transformer, wind
- safety – alarm, first aid kit, fuse, goggles, hard hat, hazard/ hazardous, heat detector, injure/ injury, smoke detector
- Simple Past has /d/ pronunciation – absorbed, analysed, arranged, boiled, caused, certified, confirmed, contained, covered, destroyed, disposed, dissolved, dragged, drained, dried, filled, flowed, glowed, hauled, idled, improved, misused, organised, poisoned, poured, recycled, refilled, reused, reversed, revolved, rolled, rubbed, scheduled, secured, signalled, simplified, solved, specified, spilled, spun, sprayed, squeezed, steered, stir, transferred, warmed, warned, worsened
- Simple Past has /id/ pronunciation – accelerated, activated, broadcasted, calculated, circulated, coated, complicated, conducted, constructed, converted, corroded, eliminated, estimated, experimented, generated, heated, ignited, illuminated, incinerated, injected, inserted, inspected, insulated, lasted, limited, melted, obstructed, painted, pointed, predicted, proceeded, protected, reacted, reflected, refrigerated, rejected, shifted, sorted, supported, tilted, transmitted, upgraded, ventilated, vibrated, winded
- Simple Past has /t/ pronunciation – attached, compressed, crushed, equipped, flushed, leaked, pierced, piped, pressed, processed, pumped, reached, reinforced, reversed, slipped, splashed, stacked, stretched, unlocked, wiped
- size – bulky, compact, enormous/ huge/ gigantic/ massive, long, medium-sized, microscopic/ miniscule/ nano-scale/ tiny, narrow, pocket-sized, short, tall, thick, thin, wide
- texture – bumpy, hard, ridged, rough, sharp, slippery, smooth, soft, spongy, squashy, sticky
- things you wear – apron, goggles, hard hat, lab coat, mask, rubber glove
- tool – (adjustable) spanner (= wrench), (Phillips) screwdriver, drill, hammer, pliers, soldering iron, spirit level
- turns around – axle, bicycle chain, clockwise – anticlockwise, cog/ gear, conveyor belt, dial/ knob, fan belt, pivot, pulley, roll/ roller, rotate/ rotation, screw, screwdriver, spin, steering wheel, twist
- uncountable – cement, clockwork, corrosion/ rust, electricity, energy, equipment, friction, garbage/ rubbish/ trash/ waste, gas, gasoline (= petrol), hardness, heat, liquid, metal, oil, plastic, power, pressure, rubber, smoke, smoothness, softness, solder, string, wear and tear
- verb based on an adjective – deepen, enlarge, loosen, sharpen, straighten, tighten, weaken, widen, worsen

Worksheet 2 – Linking words from the engineering list dictation

Choose two words from the list and see if your partner can link them in some way using phrases like those below.

Useful language

- ... and... both... - Neither... nor...
- ... and... sometimes/ often/ usually/ always go together./ ... is (usually) accompanied by...
- ... because (of).../ ... due to...
- ... can be inserted into... (with...) - ... can be removed from... (with...)
- ... can be secured with/ attached to...
- ... can be/ should be used with...
- ... causes/ can cause.../ ... is a reason for... - ... is caused by.../ ... is the result of...
- ... combines well with... - ... doesn't combine well with...
- ... could destroy/ damage/ have a negative effect on...
- ... However,.../ ..., whereas...
- ... in order to...
- ... includes.../ ... is (often/ always) a component of.../ ... contains.../... forms part of...
- ... is (more or less) equivalent to... (in...)
- ... is/ can be made from/ of...
- ... is more... than.../ ... is ...er than...
- ... is produced by...
- ... is similar to... because...
- ... is superseding/ has superseded/ will supersede...
- ... is usually... but could also...
- ... is usually located...
- ... should be put/ stored/ kept...
- A combination of... and.../ ... together with.....
- A simple/ An effective solution to... is...
- Changing from... to...
- If/ In the case of/ When..., (you should/ have to)...
- In the future... will/ might...
- Please (don't) put... in/ near/ around/ on/ under...
- To choose between... and.....
- You can (move/ lift/ operate/ rotate)... with...
- You could improve/ fix... with...
- You could make... which is/ has...
- You must not... with...
- You should/ shouldn't put... and... together.

Choose one of the sentences above that you haven't used and take turns trying use it with the vocabulary until one of you gives up. You can make grammatical changes.

From memory of your grammar knowledge, add one missing word to each of the gaps below.

- _____ order to straighten a nail, use a clamp and pliers.
- _____ you combine copper and tin, it makes bronze.
- _____ the future, thermometers will become outmoded.
- A combination _____ heat and pressure causes the formation of coal.
- A nail can be removed _____ wood with pincers.
- A nut and a bolt almost always _____ together.
- A plug _____ usually located on or near a sink.
- A simple solution _____ a squeaky hinge is olive oil.
- A USB stick can easily be inserted _____ the slot by even a small child.
- A washer combines well _____ a nut and bolt.
- A welding torch should _____ used with a mask.
- An external hard drive can be attached _____ a computer with a lead.
- Bronze was equivalent _____ steel.
- Changing _____ a two-pin plug system to a three-pin one is more trouble than it is worth.
- Drink cans _____ usually made of aluminium.
- Glass is similar _____ acrylic because they are both transparent.
- Heat is produced _____ a light bulb.
- Ignition is caused _____ a spark.
- Low energy bulbs _____ superseding fluorescent lighting strips because they are more energy efficient.
- Neither a mouse _____ a scanner is usually included with a laptop computer.
- Pressure is a reason _____ hoses leaking.
- Scissors should _____ kept with the handles up.
- Semi-circle _____ hemisphere both have curved and straight parts.
- The paperclip broke due _____ being twisted.
- The plastic melted because _____ the heat of the Bunsen burner.
- To choose _____ nails and screws, think about the weight that the structure will hold.
- Wear and tear is the result _____ friction.
- You could improve a scanner _____ a stand to put it vertically on your desk.

Check above.

Worksheet 3 - Engineering vocabulary designs and problem solving

Work together to design and describe something using as many words in the categories above as you can, from the lists above and/ or your own ideas in the same categories.

There will be points for the most categories of words, the most words in those categories and the best idea.

Things you could design:

- building
- factory/ manufacturing process
- gym equipment/ sports equipment/ new adventure sport
- help for disabled people
- medical equipment
- office
- office equipment
- robot
- safety equipment, e.g. fire fighting equipment or something to stop accidents happening
- security system
- something for space travel/ living in space
- something you've seen in a sci-fi movie
- spy equipment, e.g. bug or James Bond gadget
- transport
- weapon, e.g. drone
- way of automating everyday actions
- white goods/ personal grooming gadget

Things you could describe about it:

- appearance
- comparisons to other things
- costs
- ecology
- energy
- manufacturing
- positive aspects
- problems it solves
- use

Present your ideas to the class, starting with the team which claims to have used the greatest number of words. If anything about that presentation doesn't make sense, that team loses the chance to win that part of the competition and the team which claims the next largest number of words presents. The first team which is not successfully challenged wins. After all teams have presented, there will also be points for the team whose idea is considered the best. You cannot vote for your own idea.

Problem solving roleplays

Tell your partner that you have an engineering problem, e.g. with one of words in the "negative" list, perhaps one that is their fault. They must suggest a solution. You can argue with them about the first suggestions if you like.