Making a presentation: language and phrases

This is a list of phrases to help you make a professional presentation in English.

Clear structure, logical progression

Good presenters always use language (sometimes single words, sometimes phrases) which shows where they are in their presentation. These 'signposts' make it easier for the audience to:

- follow the structure of the presentation
- understand the speaker more easily
- get an idea of the length and content of the presentation.

We've divided the phrases and sentences into sections which follow the logical progression of a well-balanced presentation.

1. Welcoming

- *Good morning and welcome to* [name of company, name of conference hall, hotel, etc.].
- *Thank you all very much for coming today.*
- *I hope you all had a pleasant journey here today.*

2. Introducing yourself

- *My name is Mark Watson and I am responsible for … .*
- *My name is Mark Watson from* [name of company], *where I am responsible for … .*
- *Let me introduce myself; my name is Mark Watson and I am responsible for … .*

3. Introducing your presentation

- *The purpose of today's presentation is to … .*
- *The purpose of my presentation today is to … .*

- *In today's presentation I'd like to … show you … . / explain to you how … .*
- *In today's presentation I'm hoping to … give you an update on… / give you an overview of … .*
- *In today's presentation I'm planning to … look at … . / explain … .*

You can also outline your presentation to give the audience a clear overview of what they can expect:

- *In today's presentation I'm hoping to cover three points:*
- *firstly, … , after that we will look at … , and finally I'll … .*

- *In today's presentation I'd like to cover three points:*
- *firstly, … , secondly … , and finally … .*

4. Explaining that there will be time for questions at the end

- *If you have any questions you'd like to ask, please leave them until the end, when I'll be happy to answer them.*
- *If there are any questions you'd like to ask, please leave them until the end, when I'll do my best to answer them.*

5. Starting the presentation

- *To begin with … .*
- *To start with … .*

- *Let's start/begin by looking at … .*

- *I'd like to start by looking at … .*
- *Let's start with / start by looking at … .*

6. Closing a section of the presentation

- *So, that concludes* [title of the section] *… .*
- *So, that's an overview of … .*
- *I think that just about covers … .*

7. Beginning a new section of the presentation

- *Now let's move on to … .*
- *Now let's take a look at … .*

- *Now I'd like to move on to … .*
- *Next I'd like to take a look at … .*

- *Moving on to the next part, I'd like to … .*
- *Moving on to the next section, let's take a look at … .*

8. Concluding and summarising the presentation

- *Well, that brings us to the end of the final section. Now, I'd like to summarise by … .*
- *That brings us to the end of the final section. Now, if I can just summarise the main points again.*
- *That concludes my presentation. Now, if I can just summarise the main points.*
- *That's an overview of … . Now, just to summarise, let's quickly look at the main points again.*

9. Finishing and thanking

- *Thank you for your attention.*
- *That brings the presentation to an end.*
- *That brings us to the end of my presentation.*
- *Finally, I'd like to finish by thanking you (all) for your attention.*
- *Finally, I'd like to end by thanking you (all) for coming today.*
- *I'd like to thank you (all) for your attention and interest.*

10. Inviting questions

- *If anyone has any questions, I'll be pleased to answer them.*
- *If anyone has any questions, I'll do my best to answer them.*
- *If anyone has any questions, please feel free to ask them now.*
- *If anyone has any questions, please feel free to ask them and I'll do my best to answer.*

17 Wood

A Categories of wood

The two main categories of **wood** are:

- **hardwood** – usually from deciduous trees, which lose their leaves in autumn, although some hardwood (for example, tropical hardwood) comes from other types of tree
- **softwood** – from coniferous trees, which remain green throughout the year.

In engineering, wood can be categorized as:

- **solid wood** – softwood or hardwood that has been sawn into specific shapes and sizes, but whose natural structure, consisting of **grain** and **knots**, remains intact
- **engineered wood** – made by **bonding** (sticking together) layers of solid softwood or hardwood, or by mixing quantities of wood particles and bonding them with resin.

Notes: In industry, wood is often referred to as **timber** (BrE) or **lumber** (AmE).
In American English, **timber** generally means wood that is still growing in trees.
Knot is pronounced /nɒt/ (the *k* is silent).

B Solid structural timber

The text below is from a technical handbook about **structural timber** – wood intended to support loads in a structure.

Generally, timber is cut to the required **section** – the width and depth that determine its cross-section – at a **sawmill**, where a range of section sizes are produced. Timber from sawmills is generally supplied in **rough-sawn** sections. This refers to the surface texture produced by **sawing** timber with a **circular saw**. If the timber needs to have a smooth finish – for example, because it will be visible in the structure – it can subsequently be **planed** to smooth its surface.

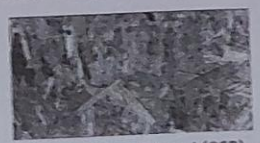
Because the strength of wood varies, structural timber must be **stress-graded**. This means its strength is tested in order to give it a **stress grade** – a standard strength value which an engineer can use for design calculations. Timber can be **mechanically stress-graded**, where its strength is checked by machine. It can also be **visually stress-graded**, where the wood is examined by an inspector who looks for potential weaknesses – in particular, the position of knots.

C Engineered wood

Engineered wood covers a range of softwood and hardwood materials. It includes:

- cheap, low-strength **boards**, such as **particle board** (often called **chipboard**) and **medium-density fibreboard** (MDF)
- stronger boards suitable for structural use – primarily **orientated strand board** (OSB), which is made from strands of wood bonded with resin, and **plywood**, which consists of several **plies** (layers) of solid wood, bonded so that the grain of each ply runs at 90 degrees to that of the adjacent plies, to provide increased strength
- **glue-laminated** sections – sometimes called **glulams** – which can be used as major structural elements, such as beams, in large buildings.


Particle board or chipboard


Orientated strand board (OSB)


Plywood

17.1 Match the two parts to make correct sentences about wood. In each case, there is more than one possible answer. Look at A opposite to help you.

1 Engineered wood
2 Softwood
3 Solid wood

a comes only from coniferous trees.
b comes only from deciduous trees.
c can come from either coniferous or deciduous trees.
d specifically describes single pieces of timber, not multiple pieces that have been bonded together.
e is always made from multiple pieces or particles of wood.
f may have knots in it.

17.2 Complete the sentences below using words and expressions from B opposite.

1 Wood has a smooth finish after it has been _____.
2 Wood cut with a circular saw is called _____ timber.
3 After timber is tested for strengths and weaknesses, it is given a _____.
4 When timber is inspected by a person who looks for weaknesses, it is _____.
5 When timber is inspected by a machine which tests its strength, it is _____.

17.3 Complete the article about the environmental considerations of wood using words from B and C opposite.

From an environmental perspective, wood has many advantages. Firstly, it comes from a sustainable source. Coniferous trees grow relatively fast, providing a rapidly replaceable source of (1) _____. Secondly, almost all the timber in a tree can be utilized, leaving little or no waste. The best quality wood can be used for structural applications, where solid, (2) _____ sections are required by engineers; for high-strength elements such as (3) _____ beams; and in the high-quality plies used to make (4) _____. Smaller strands can be made into engineering wood with structural properties, such as (5) _____. And small particles and fibres, including those from waste timber, can go into cheaper materials, like (6) _____ board and (7) _____.


Glue-laminated timber in the Scottish Parliament building in Edinburgh, Scotland

Over to you

What types of timber are used in your home and/or office, both as building materials and to make fixtures and furniture within the building?

Open Book Revision TEST « Materials & Properties »

BUT 1- IUT ANGERS Mechanical Engineering

U18 : Material Properties 1

A)What is **tensile strength** ?

The maximum load that a material can support without fracture when being stretched

1) What is **compressive strength** ?

The maximum load a material can sustain without fracture

B)Find a material that is

-Brittle : glass, ceramic, graphite
- Malleable : all metals, gold (the most malleable)
-Ductile : aluminium, copper, steel

C)

4) When do we use the term « a waist » in engineering ?

when a material is stretched and goes beyond the yield point (Ultimate tensile strenght) a waist = a narrow signals the material is about to fracture

U19 : Material Properties 2

A)

5) What is scratch hardness?

Resistant to [illegible] to being scratched
Resistance to impacts / to indentation

6) What is indentation hardness ?

It's compression in the surface of a material caused by impacts

B)

7) What causes fatigue and micro-cracking ?

[illegible] load caused this problem : load and the micro-cracking is the consequence of fatigue

8) What do heat and heavy loads often cause ?

They cause another problem : Creep which is a permanent deformation

C)

9) What's the difference between copper and polystyrene concerning thermal properties ?

The copper is an excellent thermal conductor and the polystyrene a thermal insulator

17) Wood

1) Why is wood visually stress graded ?

The examiner look for potential weaknesses in the wood, eg, knot

2) What's the difference between MDF, OSB and glue-laminated wood ?

MDF is cheap and not very strong
OSB is stronger and good for structural use
Glue laminated wood is the strongest can is used for major structural elements such as beams (poutres)

14) Polymers

A) What is rubber ?

The rubber it's a natural polymer

B)

What are/is the advantage(s) of using :

ABS : It's stiff and light and is used in the car bodywork

PVC : a cheaper plastic used for window frames and pipes

Polymides : They're strong and flexible and are used for insulators in electric cable

Elastomers : They can be stretched to at least twice their original length : in tyres, bases, belts, toy balloons, rubber bands, adhesives, ect

14) What is Steel ?

A) What are the 2 main types of steel ?

- carbon steel
- iron steel

B) What additional metals are used to make stainless steel ? (THERE ARE 2)

C) What eats into mild steel ?

APPLICATIONS OF KEVLAR FIBER. Name a few.

Adjective in English :	Translate in French	The Noun in English	Translate in French	VERBS : To last= durer
Brittle	fragile	The brittleness	la fragilité	To get/ become brittle
Soft	doux	The Softness	la douceur	To soften
Hard	dure	The Hardness	la dureté	To harden
Durable	durable	The Durability	la durabilité	To make (more) durable
Tough	~~dur~~ robuste	The Toughness	la robustesse	To toughen
Elastic	élastique	The Elasticity	l'élasticité	To make (more) elastic
Strong	forte	The Strength	la force	To Strengthen

Weak	faible	The Weakness	la faiblesse	To weaken
(shock) resistant	résistant	The Resistance	la résistance	To resist
long	long	The Length	la longueur	To lengthen
high	haut	The Height	la hauteur	To make higher
Deep	profond	The depth	la profondeur	To deepen
Wide	large	The width	la largeur	To widen
hot	chaud	The heat	la chaleur	To heat
cold	froid	The coldness	le froid	To cool

Wide	large	The width	la largeur	To widen
Stretchy	extensible	The stretchiness	l'extensibilité	To stretch
Ductile	ductile	The (tensile) ductility	la ductilité	To change the ductility
water tight	étanche	The water tightness	l'étanchéité	
impermeable	imperméable	The impermability	l'imperméabilité	To make water resistant
torn	déchiné	The tearing	la déchirure	To tear
scratched	rayé	The abraison	la rayure	To scratch/to erode
		The creep	La Deformation/le fluage	Creeping occurs
Adjective	**Comparative**			
Good	Better			To get better
Bad	Worse			To worsen

MATERIALS & PROPERTIES

Forces on Materials

I Listen and complete the following information.

1 What's the talk about? _____

_____

2 Complete the following extract.

As you know when a machine is designed one of the most _____ _____ that Mechanical Engineers have to decide on is the materials to be used. Different materials _____, _____, _____ etc. have different physical characteristics. For example aluminum may be the best for the _____ of a _____ but impossible for the _____. If the wrong material is chosen, the machine will be very expensive due to _____ or it could _____ due to under engineering. So we're going to look at the ways of different materials react to stress every component in a machine undergoes stress of one kind or another so choosing the right materials for the _____ is fundamental to good design.

Properties VOCABULARY

I In pairs, discuss the key properties of these materials:

steel glass aluminum titanium gold plastic copper (cuivre) rubber (caoutchouc)

II Complete the following table with a material.

rubber water-resistant	gold abrasion-resistant	_____ corrosion-resistant
titanium shock-resistant	titanium tough	plastic brittle
rubber elastic	gold durable	titanium heavy
aluminium lightweight	copper thermally stable	

IV Complete the following table using the words in the box

exceptionally	fairly	insufficiently	not adequately	
not particularly	pretty	relatively	tremendously	not at all

extremely	quite	not very	not enough	definitely not
exceptionally tremendously	pretty fairly	not particularly relatively	not adequately insufficiently	not at all = pas du tout

I Do you know the following vocabulary?

1 ductile _____

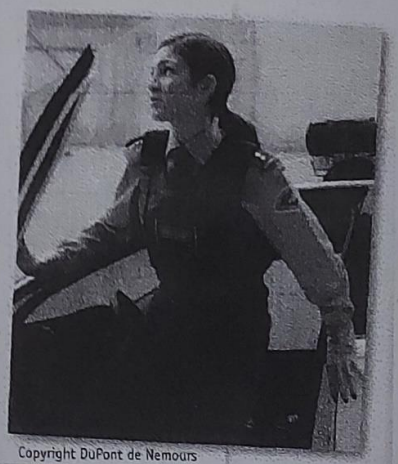
Specifying and describing properties

I Read the following extract from Dupont's technical guide to Kevlar and complete the table below.

WHAT IS KEVLAR®?

DuPont™ KEVLAR® is an organic fiber in the aromatic polyamide family. The unique properties and distinct chemical composition of KEVLAR® distinguish it from other commercial, man-made fibers.

KEVLAR® has a unique combination of high modulus, toughness, abrasion resistance and thermal stability. It was developed for demanding industrial and advanced-technology applications. Currently, many types of KEVLAR® are produced to meet a broad range of end uses that require strong, lightweight, durable materials.



Find words in the text in Exercise 8b to match the following definitions.

1 toughness = the opposite of fragility
2 bearing = resistance to damage caused by friction
3 impact resistance = resistance to problems caused by temperature change
4 _____ = long-lasting durable
5 _____ = the opposite of heavy lightweight

Match the automotive parts (1–5) to the descriptions (a–e).

1	drive belts	a	sheets inserted between parts to prevent gas or fluid leakage	4
2	brake pads	b	pneumatic envelopes in contact with the road surface	3
3	tyres	c	flexible bands used in transmission systems	1
4	sealing gaskets	d	protective barriers capable of resisting gunshots	5
5	bullet-resistant armour	e	pads pressed against discs to induce deceleration	2

II Read the information from DuPont explaining some of the automotive applications of Kevlar. Complete the text using the car parts in the previous exercise.

Car and truck (1) 3 have incorporated Kevlar® into their construction because it offers superb puncture, abrasion and tear resistance.

The high modulus and abrasion resistance of Kevlar® help (2) 1 retain their original shape and tension over the millions of revolutions they go through over the lifespan of a vehicle.

The frictional forces that (3) 2 are designed to endure take less of a toll on those made with Kevlar® pulp. The enhanced thermal stability and inherent abrasion resistance of Kevlar® allow them to last long and stop the vehicle safely and quietly.

Kevlar® provides an effective, lightweight (4) 5 solution for vehicles that require protection against ballistic attack, allowing cars and light trucks to retain most of their original handling characteristics.

Chemical stability and thermal stability help make (5) 4 reinforced with Kevlar® pulp strong and durable. The galvanic corrosion resistance of Kevlar® also contributes to improved long-term engine performance.

III Discussion. In pairs answer the following question: *Why the properties of Kevlar are especially important for each application described in the text?*

A Hardness

The **hardness** of a material affects its **durability** – that is, how long it will last. Generally, hard materials are more **durable** than soft materials, because they are better at resisting **wear** – progressively worsening damage – to their surfaces. Hardness can be defined in two main ways:

- **Scratch hardness** describes a material's ability to resist being scratched. Materials with a high degree of scratch hardness are said to have good **abrasion resistance** – they are good at resisting damage due to **abrasion** (the action of two surfaces being rubbed together).
- **Indentation hardness** describes a material's ability to resist **indentations** – that is, compressions in the surface of a material caused by impacts.

Scratches

Indentations

B Fatigue, fracture toughness and creep

The article below is from an aviation magazine.

In aircraft construction, special attention must be paid to two materials problems that are well understood by mechanical and structural engineers.

One is **fatigue**, often called **metal fatigue** in metals. This problem is caused by **cyclic loads** – forces that continually vary. In aircraft, the wings are affected by cyclic loading as they frequently **flex**, continually bending up and down due to air turbulence. The consequence of fatigue is **micro-cracking** – the formation of cracks too small to see with the eye, and which worsen over time. The speed at which **fatigue cracking** progresses depends on the material's **fracture toughness**. This is a measure of how easily cracks that have already formed continue to open up and increase in length.

Another problem is **creep** – where components become permanently deformed (stretched, for example), due to loads. Creep increases over time. The problem is made worse by heat, so is a major issue in engines, where both loads and temperatures are high.

engineers are exposed to high temp

C Basic thermal properties

Some materials **conduct** (carry or transmit) heat better than others. Therefore, thermal **conductivity** varies, depending on the material. Copper, for example, is an excellent **thermal conductor**. Polystyrene, on the other hand, is an excellent **thermal insulator** (and so a very poor thermal conductor).

As temperature increases, most materials **expand** (increase in size due to heating), and as temperature falls, they **contract** (decrease in size due to cooling). The extent to which expansion and contraction occur is measured by a material's **coefficient of thermal expansion** – that is, its change in size for a given change in temperature. The coefficient for aluminium, for example, is 0.000023. This means that for an increase in temperature of one degree Celsius, a one-metre length of aluminium will increase in length by 0.000023 metres. This figure can also be referred to as the coefficient of **linear expansion**, since it describes change in length (a linear measurement).

1 Complete the design brief for part of a cutting machine using four of the words in the box. Look at A opposite to help you.

abrasion	durability	durable	hard	indentation	scratch	soft

The cutting wheel will be surrounded by transparent guards. These will allow the operator to see the cutting wheel at all times, and will shield the operator from flying metal fragments. The guards must therefore be constructed from material with a high degree of (1) indentation hardness, to protect it from impacts. As the guards will require regular cleaning, the action of wiping away metal fragments will result in (2) abrasion. The guards must, therefore, have sufficient (3) scratch hardness in order to retain their transparency and ensure adequate (4) durability.

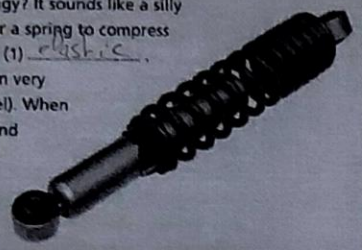
2 Match the descriptions (1–4) to the technical terms (a–d). Look at B opposite to help you.

1 the cause of fatigue	a creep
2 the consequence of fatigue	b cyclic loads
3 a material property that helps to slow down cracking	c micro-cracking
4 permanent changes in shape due to the action of loads over time	d fracture toughness

Materials Properties 1

Complete the magazine article about springs using words from A, B and C opposite.

How are the springs used in car suspension made springy? It sounds like a silly question, but think about it for a moment. In order for a spring to compress or extend, then return to its original shape, it must be (1) elastic.
But springs are made from wire, and wire is made from very (2) ductile metal (often cold drawn carbon steel). When the wire is manufactured, it is not only stretched beyond its (3) elastically limit – meaning it will no longer return to its original length – but also beyond its (4) yield point, where significant, irreversible (5) deformation occurs.
The metal from which springs are made has therefore been (6) plastically deformed and, consequently, needs to have its springiness put back.



To do this, once a spring has been formed into a coil, it is tempered – a process in which it is heated and kept at a high temperature for a sustained period. This 'resets' the atomic structure of the metal (partly, at least), so that after tempering, the spring will behave as it should – it can be (7) plastically deformed and will subsequently return to its original shape.

A Tensile strength and deformation

When materials are exposed to forces, such as **tension** (stretching forces ←□→) and **compression** (crushing forces →□←), they **deform** – that is, they change shape. The type of **deformation** depends on the type of force that is applied.

When a material is subjected to tension, its length will increase by a certain amount. This is called **extension** or **elongation**. It is especially important to understand the performance of materials in tension, as their **tensile strength** (ability to resist tension) is usually lower than their **compressive strength** (ability to resist compression).

B Elasticity and plasticity

Some materials can extend significantly, but still return to their original shape. A material's ability to do this is called **elasticity**. Rubber is an example of a very elastic material – it can be **elastically deformed** to a considerable extent.

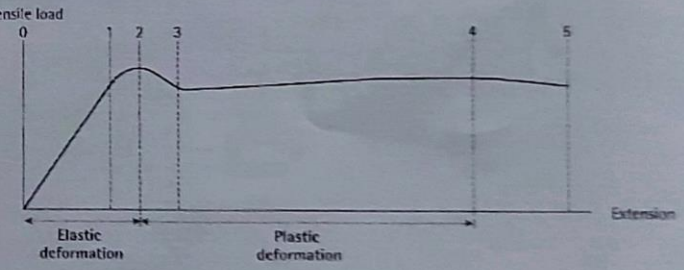
If a material has very low elasticity, and is strong, engineers say it is **stiff**. If a material has low elasticity and is weak, it is described as **brittle** – that is, it **fractures** (breaks, due to tension) very easily. Glass is an example of a brittle material.

Some materials can change shape significantly, but do not return to their original shape. We say these materials are **plastic**. Often, **plasticity** is described in specific terms. A material that can be **plastically deformed** by hammering or rolling – for example, lead (Pb) – is **malleable**. A material that can be drawn out (stretched) into a long length – for example, copper (Cu) – is **ductile**.

C Stages in elastic and plastic deformation

The graph below shows the typical extension behaviour of ductile materials in tensile testing – where a sample bar is subjected to a progressively increasing tensile force.

Points 0–1	The extension of the bar is **proportional** to the increase in tension. For example, when tension increases by 10%, length increases by 10%.
Point 1	The bar reaches the **limit of proportionality**. Beyond this point, length begins to increase at a slightly greater rate than tension.
Point 2	The **elastic limit** is reached. Beyond this point, the bar will no longer return to its original length. In many materials, the elastic limit occurs almost immediately after the limit of proportionality.
Point 3	The bar reaches its **yield point**. Once it yields, it continues to increase in length, even without a further increase in tension.
Point 4	This is the **ultimate tensile strength** (UTS) of the material. Beyond this point, a **waist** (a narrower section) appears at a point along the length of the bar, signalling that it is about to fracture.
Point 5	This is the **fracture point**, where the bar breaks in two.



1 Complete the sentences using the words in the box. You will need to use one word twice. Look at A opposite to help you.

compression	deformation	elongation	extension	tension

1 A stretching force is called tension
2 A crushing force is called compression
3 Extension is also called elongation
4 Tension causes extension or elongation
5 Tension or compression cause deformation