



Before you read the text, try to answer the following questions. The pictures below may give you some ideas.

- ✓ What is graphic design and what is its main purpose?
- ✓ What arts and techniques does it use?
- ✓ What are the most common uses of graphic design?

Some ideas:

Graphic design is art with a purpose. Graphics often combine text, illustration, and colour. Given that a picture is worth a thousand words, graphic design helps you convey your ideas in a beautiful and effective way. It is visual communication and the aesthetic expression of concepts and ideas using various graphic elements and tools. It uses images, symbols or words. A good graphic design should effectively communicate the message of the sender to the target audience.

Arts and techniques

Visual identity graphic design: the visual elements of brand identity (logos, business cards and corporate stationary, colour palettes, image libraries that represent a brand's personality).

Marketing & advertising graphic design: Postcards, flyers, magazine and newspaper ads, posters, banners and billboards, infographics, print and digital brochures, vehicle wraps, signage and trade show displays, PowerPoint presentations, menus, social media ads, images for websites and blogs, etc.

User interface graphic design: Web page design, Theme design, Game interfaces, App design etc.

Publication graphic design: books, newspapers, magazines and catalogues, newsletters, directories, digital publishing, etc.

Packaging graphic design: Boxes, bottles, bags, cans, containers used for storage, distribution and sale of products.

Motion graphic design: animation, audio, typography, imagery, video and other effects used in online media, television and film (title sequences and end credits, advertisements, animated logos, trailers, presentations, promotional videos, tutorial videos, websites, apps, video games, banners, GIFs, etc.).

Environmental graphic design: visually connects people to places (signage, wall murals, museum exhibitions, office branding, public transportation navigation, store interiors, stadium branding, event and conference spaces, etc.).

Art and illustration for graphic design: graphic artists may also create original artwork, from fine art to decoration and storytelling illustrations (T-shirt design, graphic patterns for textiles, motion graphics, stock images, graphic novels, video games, websites, comic books, album art, book covers, picture books, infographics, technical illustration, concept art etc.).

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Common uses of graphic design include corporate design (logos and branding), editorial design (magazines, newspapers and books), wayfinding or environmental design, advertising, web design, communication design, product packaging, and signage.

Graphic design techniques:

Colour, balance, typography, texture, shape and form, layout etc.

2. Read the text again and find the sentences that fit best as captions to the pictures below.

Students may select any sentence they think that expresses the message conveyed by the picture. Some possible answers would be:

Graphic designers create and **combine symbols, images and text to form visual representations of ideas and messages**

or

Graphic designers use typography, visual arts, illustration and page layout techniques to **create visual compositions.**

Graphic design is the art and profession of **selecting and arranging visual elements** — such as typography, images, symbols and colours — to convey a message to an audience.

Common uses of graphic design include corporate design (logos and branding), **editorial design (magazines, newspapers and books)**, etc.

An important part of the designer's task is to **combine visual and verbal elements** into an ordered and effective whole.

4. Complete the following table noting down relevant key points from the text above.

Influences on the evolution of graphic design	<ul style="list-style-type: none"> • technological innovations • societal needs • visual imagination of practitioners
Origins of graphic design	Manuscripts in <ul style="list-style-type: none"> • ancient China • Egypt • Greece
15th century developments that influenced graphic design evolution	<ul style="list-style-type: none"> • printing • book production
19th century developments that influenced graphic design evolution	<ul style="list-style-type: none"> • job specialization • new technologies • new commercial possibilities • new production methods which led to the separation of the design of a communication medium (e.g. a poster) from its actual production • advertising agencies, book publishers and magazines hiring art directors to organise all visual elements of the communication and bring them into a harmonious whole.
1922	Typographer W. A. Dwiggins first used the term graphic design

Teacher's

20th century expansion new fields and practices in graphic design	<ul style="list-style-type: none"> • magazine pages, book jackets, posters, compact-disc covers, postage stamps, packaging, trademarks, signs, advertisements • film and television: motion and kinetics (kinetic titles for television programmes and motion pictures) • web sites • computer software enabling artists to manipulate images in a much faster and simpler way with quick calculations, and potential to recolour, scale, rotate, and rearrange images.
21st century	Graphic design has become a global profession

5. In groups, combine the information from the previous reading texts and make a poster to show the evolution and/or uses of Graphic Design. You can add drawings, pictures and any other information you consider necessary. Then, present your work to your classmates.

Students' own answers.

6. Match the words (1-10) with the definitions (A-J).

1. J	6. C
2. I	7. E
3. D	8. A
4. H	9. B
5. G	10. F

7. Complete the blanks with the correct word.

1. a. logo	2. a. labelling	3. a. environmental graphics	4. a. corporate designer
b. graphic design	b. packaging	b. wayfinding	b. editorial designer

11. Fill in the blanks with the correct form of the verbs in brackets.

1. are encompassed	2. are formulated	3. was / would be referred	4. are completed
5. is required	6. may be consumed	7. is concerned	8. be seen
9. can be represented	10. be integrated	11. has been regarded	12. are used
13. can be used	14. can be communicated	15. may be published	16. are inserted

Teacher's

12. You are going to watch a Ted Talk video. Watch and listen carefully to answer the following questions.

Transcript

https://www.ted.com/talks/marian_bantjes_intricate_beauty_by_design/transcript

I'm going to begin by reciting a poem. "Oh beloved dentist: Your rubber fingers in my mouth ... your voice so soft and muffled ... Lower the mask, dear dentist, lower the mask."

00:24

Okay, in this presentation, I'm going to be putting the right side of your brains through a fairly serious workout. You're going to see a lot of imagery, and it's not always connected to what I'm talking about, so I need you to kind of split your brains in half and let the images flow over one side and listen to me on the other. So I am one of those people with a transformative personal story. Six years ago, **after 20 years in graphic design and typography**, I changed the way I was working and the way most graphic designers work **to pursue a more personal approach to my work, with only the humble attempt to simply make a living doing something that I loved**. But something weird happened. **I became bizarrely popular**. My current work seems to resonate with people in a way that has so taken me by surprise that I still frequently wonder what in the hell is going on. And I'm slowly coming to understand that the appeal of what I do may be connected to why I do it.

01:35

These days, I call myself a **graphic artist**. So where my work as a graphic designer was to follow strategy, **my work now follows my heart and my interests with the guidance of my ego to create work that is mutually beneficial to myself and a client**. Now, this is heresy in the design world. The ego is not supposed to be involved in graphic design. But I find that for myself, without exception, the more I deal with the work as something of my own, as something that is personal, the more successful it is as something that's compelling, interesting and sustaining. So I exist somewhat outside of the mainstream of design thinking. Where others might look at measurable results, **I tend to be interested in more ethereal qualities, like "Does it bring joy?" "Is there a sense of wonder?" and "Does it invoke curiosity?"**

02:41

This is a scientific diagram, by the way. I don't have time to explain it, but it has to do with DNA and RNA. So I have a particular imaginative approach to visual work. The things that interest me when I'm working are visual structure, surprise and anything that requires figuring things out. So for this reason, I'm particularly drawn to systems and patterns. I'm going to give you a couple of examples of how my brain works.

03:10

This is a piece that I did for The Guardian newspaper in the U.K. They have a magazine that they call G2. And this is for their puzzle special in 2007. And puzzling it is. I started by creating a series of tiling units. And these tiling units, I designed specifically so that they would contain parts of letterforms within their shapes so that I could then join those pieces together to create letters and then words within the abstract patterning. But then as well, I was able to just flip them, rotate them and combine them in different ways to create either regular patterns or abstract patterns. So here's the word puzzle again. And here it is with the abstract surrounding. And as you can see, it's extremely difficult to read. But all I have to do is fill certain areas of those letterforms and I can bring those words out of the background pattern. But maybe that's a little too obvious. So then I can add some color in with the background and add a bit more color in with the words themselves, and this way, working with the art director, I'm able to bring it to just the right point that it's puzzling for the audience -- they can figure out that there's something they have to read -- but it's not impossible for them to read.

04:36

I'm also interested in working with unusual materials and common materials in unusual ways. So this requires figuring out how to get the most out of something's innate properties and also how to bend it to my will. So ultimately, my goal is to create something unexpected. To this end, I have worked in sugar for

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Stefan Sagmeister, three-time TED speaker. And this project began essentially on my kitchen table. I've been eating cereal for breakfast all of my life. And for that same amount of time, I've been spilling sugar on the table and just kind of playing with it with my fingers. And eventually I used this technique to create a piece of artwork. And then I used it again to create six pieces for Stefan's book, "Things in My Life I've Learned So Far." And these were created without sketches, just freehand, by putting the sugar down on a white surface and then manipulating it to get the words and designs out of it. Recently, I've also made some rather highbrow baroque borders out of lowbrow pasta. And this is for a chapter that I'm doing in a book, and the chapter is on honor. So it's a little bit unexpected, but, in a way, it refers to the macaroni art that children make for their parents or they make in school and give to their parents, which is in itself a form of honor. This is what you can do with some household tinfoil. Okay, well, it's what I can do with some household tinfoil.

06:19

I'm very interested in wonder, in design as an impetus to inquiring. To say I wonder is to say I question, I ask. And to experience wonder is to experience awe. So I'm currently working on a book, which plays with both senses of the word, as I explore some of my own ideas and inquiries in a visual display of rather peacock-like grandeur. The world is full of wonder. But the world of graphic design, for the most part, is not. So I'm using my own writings as a kind of testing ground for a book that has an interdependency between word and image as a kind of seductive force. I think that one of the things that religions got right was the use of visual wonder to deliver a message. I think this true marriage of art and information is woefully underused in adult literature, and I'm mystified as to why visual wealth is not more commonly used to enhance intellectual wealth. When we look at works like this, we tend to associate them with children's literature. There's an implication that ornamental graphics detract from the seriousness of the content. But I really hope to have the opportunity to change that perception. This book is taking rather a long time, but I'm nearly done.

07:49

For some reason, I thought it would be a good idea to put an intermission in my talk. And this is it -- just to give you and me a moment to catch up.

08:06

So I do these valentines. I've been sending out valentines on a fairly large scale since 2005. These are my valentines from 2005 and 2006. And I started by doing just a single image like this and sending them out to each person. But in 2007, I got the cockamamie idea to hand-draw each valentine for everyone on my mailing list. I reduced my mailing list to 150 people. And I drew each person their own unique valentine and put their name on it and numbered it and signed it and sent it out. Believe it or not, I devised this as a timesaving method. I was very busy in the beginning of that year, and I didn't know when I was going to find time to design and print a single valentine. And I thought that I could kind of do this piecemeal as I was traveling. It didn't exactly work out that way. There's a longer story to this, but I did get them all done in time, and they were extremely well received. I got an almost 100 percent response rate. (Laughter) And those who didn't respond will never receive anything from me ever again.

09:30

Last year, I took a more conceptual approach to the valentine. I had this idea that I wanted people to receive a kind of mysterious love letter, like a found fragment in their mailbox. I wanted it to be something that was not addressed to them or signed by me, something that caused them to wonder what on Earth this thing was. And I specifically wrote four pages that don't connect. There were four different versions of this. And I wrote them so that they begin in the middle of a sentence, end in the middle of a sentence. And they're on the one hand, universal, so I avoid specific names or places, but on the other hand, they're personal. So I wanted people to really get the sense that they had received something that could have been a love letter to them. And I'm just going to read one of them to you.

10:27

"You've never really been sure of this, but I can assure you that this quirk you're so self-conscious of is intensely endearing. Just please accept that this piece of you escapes with your smile, and those of us who notice are happy to catch it in passing. Time spent with you is like chasing and catching small birds,

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but without the scratches and bird shit." (Laughter) "That is to say, your thoughts and words flit and dart, disconcertedly elusive at times, but when caught and examined -- ahh, such a wonder, such a delightful reward. There's no passing time with you, only collecting -- the collecting of moments with the hope for preservation and at the same time release. Impossible? I don't think so. I know this makes you embarrassed. I'm certain I can see you blushing. But I just have to tell you because sometimes I hear your self-doubt, and it's so crushing to think that you may not know how truly wonderful you are, how inspiring and delightful and really, truly the most completely ..."

11:40

So Valentine's Day is coming up in a couple of days, and these are currently arriving in mailboxes all around the world. This year, I got, what I really have to say is a rather brilliant idea, to laser cut my valentines out of used Christmas cards. So I solicited friends to send me their used Christmas cards, and I made 500 of these. Each one of them is completely different. I'm just really, really thrilled with them. I don't have that much else to say, but they turned out really well.

12:23

I do spend a lot of time on my work. And one of the things that I've been thinking about recently is what is worth while. What is it that's worth spending my time on and my life on in this way? Working in the commercial world, this is something that I do have to struggle with at times. And yes, sometimes I'm swayed by money. But ultimately, I don't consider that a worthy goal. What makes something worthwhile for me is the people I work for or with, the conditions I work under and the audience that I'm able to reach. So I might ask: "Who is it for?" "What does it say?" and "What does it do?"

13:06

You know, I have to tell you, it's really difficult for someone like me to come up on stage at this conference with these unbelievably brilliant minds, who are thinking these really big-picture, world-changing, life-changing ideas and technologies. And it's very, very common for designers and people in the visual arts to feel that we're not contributing enough, or worse, that all we're doing is contributing to landfill. Here I am; I'm showing you some pretty visuals and talking about aesthetics. But I've come to believe that truly imaginative visual work is extremely important in society.

14:00

Just in the way that I'm inspired by books and magazines of all kinds, conversations I have, movies, so I also think, when I put visual work out there into the mass media, work that is interesting, unusual, intriguing, work that maybe opens up that sense of inquiry in the mind, that I'm seeding the imagination of the populace. And you just never know who is going to take something from that and turn it into something else, because inspiration is cross-pollinating. So a piece of mine may inspire a playwright or a novelist or a scientist, and that in turn may be the seed that inspires a doctor or a philanthropist or a babysitter. And this isn't something that you can quantify or track or measure, and we tend to undervalue things in society that we can't measure.

15:04

But I really believe that a fully operating, rich society needs these seeds coming from all directions and all disciplines in order to keep the gears of inspiration and imagination flowing and cycling and growing. So that's why I do what I do, and why I spend so much time and effort on it, and why I work in the commercial, public sphere, as opposed to the isolated, private sphere of fine art: because I want as many people as possible to see my work, notice it, be drawn into it, and be able to take something from it. And I actually really feel that it's worthwhile to spend my valuable and limited time on this Earth in this way. And I thank you for allowing me to show it to you.

Teacher's

a. What does Marian Bantjes do for a living? She is a graphic designer, artist and typographer.

b. Marian Bantjes says "Six years ago, ..., I changed the way I was working".

• **How did her approach change?**

She tried to pursue a more personal approach to her work, to make a living doing something that she loved. Her work now follows her heart and her interests with the guidance of her ego to create work that is mutually beneficial to herself and a client.

• **What is she mostly interested in?**

Instead of looking at measurable results of her work, she is interested in more ethereal qualities, like "Does it bring joy?" "Is there a sense of wonder?" and "Does it invoke curiosity?"

• **What was the result of this change?**

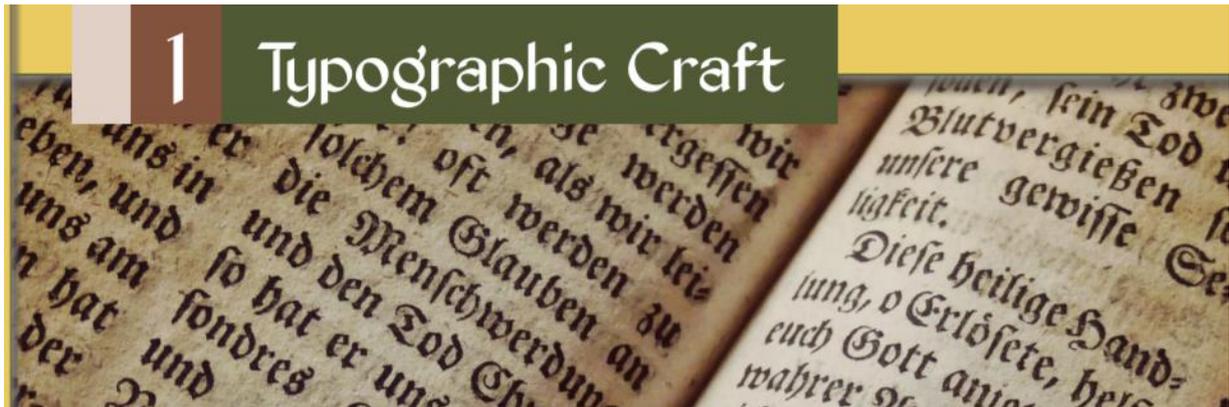
She became bizarrely popular, something that took her by surprise. The more she deals with the work as something of her own, as something that is personal, the more successful it is.

13. Now listen again and note down as many examples of Marian Bantjes' work as possible. Form groups and share your notes as well as your thoughts about her work. Finally, present your group's work in class.

Students can talk about their impressions of Marian's work.

- a piece for The Guardian newspaper, for their puzzle special in 2007
- working with unusual materials and common materials in unusual ways
- a piece of artwork working in sugar for Stefan's book, "Things in My Life I've Learned So Far."
- some rather highbrow baroque borders out of lowbrow pasta, for a chapter in a book
- a piece of artwork with household tinfoil
- a visual display of rather peacock-like grandeur for a book
- hand-drawn Valentine cards
- laser cut valentines out of used Christmas cards.

For the rest of the activities (14-16) students can use what they have learnt so far or search the internet to get more ideas.



1. How much do you know about typography and its elements? Discuss with your partner and then report to class. You will check your answers later at the end of the unit.

Students do the quiz in pairs to check their knowledge about typography. They will check the answers after they have read the text in activity 6.

3. Read the text about typography and then answer whether the statements that follow are true (T) or false (F).

1. Line-spacing is also called tracking **F**
2. Kerning is the process of adjusting the spacing between characters **T**
3. In modern Digital Age, typography is a specialized occupation. **F**
4. Typography may have a serious impact on the reader's attention while reading. **T**
5. Typography cannot affect the meaning of a text. **F**

4. Study the table with the description of the various case styles and then look at the sentences that follow. What case style are they written in?

Family of British aid worker shot dead by kidnappers in Nigeria. ... **sentence** ...

family of british aid worker shot dead by kidnappers in nigeria. ... **all lowercase** ...

Family Of British Aid Worker Shot Dead By Kidnappers In Nigeria. ... **start case** ...

Family of British Aid Worker Shot Dead by Kidnappers in Nigeria. ... **title case** ...

Family of British Aid Worker shot dead by Kidnappers in Nigeria. ... **German** ...

FAMILY OF BRITISH AID WORKER SHOT DEAD BY KIDNAPPERS IN NIGERIA ... **all caps** ...

5. How are the different case styles used in publications? Read the following text and then, in pairs, search the internet for examples of the various uses. Present them in class.

Students' own answers

Teacher's

6. Read the text below and check your answers in the Quiz (activity 1) with your partner.

1. Typography	a. is an art b. is a technique c. both
2. Typography is the work of	a. typesetters b. graphic designers c. art directors d. all the above
3. A typographer	a. arranges words, letters, numbers, and symbols for publication, display or distribution. b. is concerned with the selection of paper, the choice of ink, the method of printing. c. is concerned with the appearance of the printed page. d. is concerned with all the above.
4. Typography's <u>principal</u> objective is	a. to facilitate effective communication b. to increase the attractiveness of a text c. to grab the reader's attention
5. Good typography	a. helps readers devote more attention to the mechanics of reading and less attention to the message. b. helps readers devote less attention to the mechanics of reading and more attention to the message.
6. The 3 fundamental aspects of typography are considered to be	a. legibility b. clarity c. complexity d. diversity e. brightness f. readability g. symmetry h. aesthetics
7. Case style relates to the use of	a. different fonts in a text b. letter case in a text c. different typefaces in a text
8. Periodicals nowadays design their publications	a. following a common pattern and style b. according to the tone or style they want to achieve c. using a modern style with a variety of typefaces and colours
9. Typefaces can be divided into two main categories:	a. serif and sans serif b. italics and boldface c. italics and oblique
10. A text that is set in <u>all capital letters</u> is considered	a. more difficult to read b. easier to read c. good for scanning

Teacher's

7. Now read the text again and choose the correct answer for the questions that follow.

1. Legibility supports	a. readability of a product b. the aesthetic aspects of a product
2. Legibility describes how easily you can	a. distinguish individual characters from one another b. read the text as a whole
3. When it is difficult to distinguish a <i>q</i> and a <i>y</i> , there is a problem of	a. readability b. legibility
4. Using only upper-case letters reduces	a. readability b. legibility
5. Use of margins impacts on	a. legibility b. readability
6. The aesthetic aspect in typography depends on	a. careful selection of typefaces b. type sizes c. lay out d. all the above
7. Which is more legible?	a. Regular upright type b. Italic type
8. Which is more effective in terms of legibility?	a. Black on yellow b. White on blue c. Both
9. Black on white is	a. a positive image b. a negative image
10. The lower portions of letters are called	a. ascenders b. descenders

8. Form groups and make a poster depicting the dos and don'ts in typography. Present your posters in class.

Students' own answers

9. Do case-styles affect readability? It is said that when a text is set in all capital letters, reading speed is slowed and that capital letters are bad for scanning or reading longer texts due to the fact that they are of the same height. You can search the internet to know more about how case-styles affect readability.

Students can search the internet for relevant information/ sites (e.g. <https://practicaltypography.com/all-caps.html>)

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12. Now answer the questions using information from the text above.

1. What is “emphasis” in typography?

In typography, emphasis is the strengthening of words in a text with a font in a different style from the rest of the text, to highlight them.

2. What is a typeface?

In typography, a typeface (also known as font family) is a set of one or more fonts each composed of glyphs that share common design features. Every typeface is a collection of glyphs, each of which represents an individual letter, number, punctuation mark, or other symbol. There are typefaces tailored for special applications, such as map-making or astrology and mathematics.

3. Name some methods or techniques of emphasis in western typography.

The most common methods in Western typography fall under the general technique of emphasis through a change or modification of font: italics, boldface and SMALL CAPS. Other methods include the alteration of LETTER CASE and spacing as well as colour and *additional graphic marks*.

4. What are the characteristics of fonts?

Each font of a typeface has a specific weight, style, condensation, width, slant, italicization, ornamentation etc.

5. What is type design?

The art and craft of designing typefaces is called type design.

6. Give some alternative names for type designers.

Designers of typefaces are called type designers and are often employed by type foundries. In digital typography, type designers are sometimes also called font developers or font designers.

7. Which are the main categories of typefaces? Which is the main characteristic that differentiates them?

Typefaces can be divided into two main categories: serif and sans serif. Serifs comprise the small features at the end of strokes within letters. The printing industry refers to typeface without serifs as sans serif (from French sans, meaning without), or as grotesque.

8. Name some font effects.

Font effects such as italic type or oblique type, boldface, and choice of serif vs. sans-serif.

13. True or False?

1. A typeface is a set of fonts. **TRUE** (A typeface - also known as font family - is a set of one or more fonts).
2. A glyph may be representing a number. **TRUE** (Every typeface is a collection of glyphs, each of which represents an individual letter, number....).
3. New typefaces and fonts are emerging nowadays. **TRUE** (There are thousands of different typefaces in existence, with new ones being developed constantly).
4. Typeface is an alternative term for font. **FALSE** (A typeface - also known as font family - is a set of one or more fonts. ...The term typeface is frequently confused with the term font).
5. Sans serif means without serif. **TRUE** (from French sans, meaning without).
6. Everybody agrees that typefaces with serifs are easier to read in long passages than those without. **FALSE** (Studies on the matter are ambiguous, suggesting that most of this effect is due to the greater familiarity of serif typefaces).

Teacher's

14. Complete the blanks in the text below using the words in the table.

Font styles and variants

The human eye is very receptive to differences in 1. **brightness** within a text body". Therefore, one can differentiate between types of emphasis according to whether the emphasis changes the "blackness" of text, sometimes referred to as typographic colour. A means of emphasis that does not have much effect on blackness is the use of 2. **italics**, where text is written in a 3. **script** style, or **oblique**, where the vertical orientation of each letter of the text is 4. **slanted** to the left or right.

With one or the other of these techniques, words can be 5. **highlighted** without making them stand out much from the rest of the text (inconspicuous stressing). This is used for marking passages that have a 6. **different** context, such as book 7. **titles**, words from foreign languages, and the 8. **like**.

By contrast, a bold font weight makes letters of a text 9. **thicker** than the surrounding text. Bold strongly stands out from regular text, and is often used to highlight 10. **keywords** important to the text's content and allowing such words to be visually 11. **scanned** with ease. For example, printed 12. **dictionaries** often use boldface for their keywords.

Small 13. **capitals** are also used for emphasis, especially for the first line of a 14. **section**, sometimes accompanied by or instead of a drop cap (initial), or for personal names as in 15. **bibliographies**.

15. Match the words (1-10) with the definitions (A-J).

1. G	6. H
2. J	7. A
3. D	8. C
4. F	9. B
5. I	10. E

16. Complete the sentences with the correct word from the following word list.

1. kerning	2. sans-serif	3. letter-spacing	4. justification
5. typeface	6. font	7. serif	8. legibility

17. Complete each blank in the following pairs of sentences with the correct word.

1. a. sans-serif	2. a. tracking	3. a. legibility
1. b. serif	2. b. kerning	3. b. readability

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18. You are going to watch or listen to a talk by Matthew Carter, the man behind typefaces such as Verdana, Georgia and Bell Centennial. Before you watch or listen to the talk, go through the following statements. Only eight (8) of them refer to issues raised in the talk. Can you guess the odd one?

7. Choosing the right publisher is vital to the process of getting your book published.

Students will check their answers after having listened to the text.

19. Now watch or listen to Matthew Carter's talk and put numbers next to the previous topics to show the order in which they are mentioned.

Transcript

https://www.ted.com/talks/matthew_carter_my_life_in_typefaces

00:00

Type is something we consume in enormous quantities. In much of the world, it's completely inescapable. But few consumers are concerned to know where a particular typeface came from or when or who designed it, if, indeed, there was any human agency involved in its creation, if it didn't just sort of materialize out of the software ether.

0:25

But I do have to be concerned with those things. It's my job. I'm one of the tiny handful of people who gets badly bent out of shape by the bad spacing of the T and the E that you see there. I've got to take that slide off. I can't stand it. Nor can Chris. There. Good.

00:44

So my talk is about the connection between technology and design of type. **The technology has changed a number of times since I started work: photo, digital, desktop, screen, web.** I've had to survive those changes and try to understand their implications for what I do for design. This slide is about the effect of tools on form. The two letters, the two K's, the one on your left, my right, is modern, made on a computer. All straight lines are dead straight. The curves have that kind of mathematical smoothness that the Bézier formula imposes. **On the right, ancient Gothic, cut in the resistant material of steel by hand.** None of the straight lines are actually straight. The curves are kind of subtle. It has that spark of life from the human hand that the machine or the program can never capture. What a contrast.

01:48

Well, I tell a lie. A lie at TED. I'm really sorry. **Both of these were made on a computer, same software, same Bézier curves, same font format.** The one on your left was made by Zuzana Licko at Emigre, and I did the other one. The tool is the same, yet the letters are different. The letters are different because the designers are different. That's all. Zuzana wanted hers to look like that. I wanted mine to look like that. End of story. Type is very adaptable. Unlike a fine art, such as sculpture or architecture, type hides its methods. I think of myself as an industrial designer. **The thing I design is manufactured, and it has a function: to be read, to convey meaning.** But there is a bit more to it than that. There's the sort of aesthetic element. What makes these two letters different from different interpretations by different designers? What gives the work of some designers sort of characteristic personal style, as you might find in the work of a fashion designer, an automobile designer, whatever?

02:54

Teacher's

There have been some cases, I admit, where I as a designer did feel the influence of technology. **This is from the mid-'60s, the change from metal type to photo, hot to cold.** This brought some benefits but also one particular drawback: a spacing system that only provided 18 discrete units for letters to be accommodated on. **I was asked at this time to design a series of condensed sans serif types with as many different variants as possible within this 18-unit box.** Quickly looking at the arithmetic, I realized I could only actually make three of related design. Here you see them. In Helvetica Compressed, Extra Compressed, and Ultra Compressed, this rigid 18-unit system really boxed me in. **It kind of determined the proportions of the design. Here are the typefaces, at least the lower cases.** So do you look at these and say, "Poor Matthew, he had to submit to a problem, and by God it shows in the results." I hope not. If I were doing this same job today, instead of having 18 spacing units, I would have 1,000. Clearly I could make more variants, but would these three members of the family be better? It's hard to say without actually doing it, but they would not be better in the proportion of 1,000 to 18, I can tell you that. My instinct tells you that any improvement would be rather slight, because they were designed as functions of the system they were designed to fit, and as I said, type is very adaptable. It does hide its methods. All industrial designers work within constraints. This is not fine art.

04:48

The question is, does a constraint force a compromise? By accepting a constraint, are you working to a lower standard? I don't believe so, and I've always been encouraged by something that Charles Eames said. He said he was conscious of working within constraints, but not of making compromises. The distinction between a constraint and a compromise is obviously very subtle, but it's very central to my attitude to work.

05:17

Remember this reading experience? The phone book. I'll hold the slide so you can enjoy the nostalgia. **This is from the mid-'70s early trials of Bell Centennial typeface I designed for the U.S. phone books, and it was my first experience of digital type,** and quite a baptism. Designed for the phone books, as I said, to be printed at tiny size on newsprint on very high-speed rotary presses with ink that was kerosene and lampblack. **This is not a hospitable environment for a typographic designer.** So the challenge for me was to design type that performed as well as possible in these very adverse production conditions. As I say, we were in the infancy of digital type. I had to draw every character by hand on quadrille graph paper -- there were four weights of Bell Centennial -- pixel by pixel, then encode them raster line by raster line for the keyboard. It took two years, but I learned a lot. These letters look as though they've been chewed by the dog or something or other, but the missing pixels at the intersections of strokes or in the crotches are the result of my studying the effects of ink spread on cheap paper and reacting, revising the font accordingly. These strange artifacts are designed to compensate for the undesirable effects of scale and production process. At the outset, AT & T had wanted to set the phone books in Helvetica, but as my friend Erik Spiekermann said in the Helvetica movie, if you've seen that, the letters in Helvetica were designed to be as similar to one another as possible. **This is not the recipe for legibility at small size. It looks very elegant up on a slide.** I had to disambiguate these forms of the figures as much as possible in Bell Centennial by sort of opening the shapes up, as you can see in the bottom part of that slide.

07:20

So now we're on to the mid-'80s, the early days of digital outline fonts, vector technology. There was an issue at that time with the size of the fonts, the amount of data that was required to find and store a font in computer memory. **It limited the number of fonts you could get on your typesetting system at any one time.** I did an analysis of the data, and found that a typical serif face you see on the left needed nearly twice as much data as a sans serif in the middle because of all the points required to define the elegantly curved serif brackets. The numbers at the bottom of the slide, by the way, they represent the amount of data needed to store each of the fonts. So the sans serif, in the middle, sans the serifs, was much more economical, 81 to 151.

08:20

Teacher's

"Aha," I thought. "The engineers have a problem. Designer to the rescue."

08:26

I made a serif type, you can see it on the right, without curved serifs. I made them polygonal, out of straight line segments, chamfered brackets. And look, as economical in data as a sans serif. We call it Charter, on the right.

1. Matthew's job is related to typeface. **2**
2. There's always a distinctive aesthetic element in the work of each designer that characterises his/her personal style. **4**
3. Designing fonts to be printed at tiny size for the U.S. phone book in the 70's was not an easy task. **7**
4. There is a great difference between design by human hand and design by machines or computer programmes. **3**
5. Working within constraints does not necessarily mean making compromises. **6**
6. People are not generally concerned with the origin of typeface when they read a text. **1**
- 7. Choosing the right publisher is vital to the process of getting your book published**
8. In the 80s, there was an issue with the size of fonts, because of the amount of data that could be stored in computer memory. **8**
9. Technology brought both benefits and drawbacks to the design of fonts. **5**

20. Watch or listen carefully again and mark the following statements as true (T) or false (F).

- a. The technology has changed a number of times since I started work: photo, digital, desktop, screen, web. **T**
- b. The K on the left, is modern, made on a computer whereas the K on the right, is ancient Gothic, made by hand. **F**
- c. Unlike a fine art, such as sculpture or architecture, the thing Matthew Carter designs has a function: to be read, to convey meaning. **T**
- d. Another difference between fine art and Matthew's work is that typeface design has no aesthetic element in it. **F**
- e. The drawback that technology brought was the fact that the spacing system only provided 18 discrete units for letters to be accommodated on. **T**
- f. All industrial designers work within constraints and as a result, they need to make compromises. **F**
- g. His first experience of digital type in the mid-'70s when he was asked to design for the phone books was difficult but helped him learn a lot. **T**

Teacher's

23. Complete the sentences using the correct form of the adjectives/adverbs in brackets. Add any other words necessary.

1. Compared with *USA Today*, *The New York Times* uses a more (much) traditional approach, with fewer (few) colours, less (little) typeface variation, and more (many) columns.
2. Good typography helps readers devote less (little) attention to the mechanics of reading and more (much) attention to the message.
3. A text that is set in all capital letters is considered more difficult to read than a text set in sentence case (difficult).
4. Do you know which font takes up the least (little) space when printed?
5. Positive images make handheld material easier to read than negative or reversed (easy).
6. The upper portions of letters (ascenders) play a stronger part in the recognition process than the lower portions (strong).
7. By contrast, a bold font weight makes letters of a text thicker than the surrounding text (thick).
8. Some of the most common typographical principles are listed below (common).
9. Antiqua is one of the oldest fonts designed (old).
10. The larger (large) the size of a section, the more distinguishable (distinguishable) it is from the rest of the text.

24. Complete the sentences choosing the right item.

1. Text set in lower case is more/less legible than text set all in upper case, presumably because lower case letter structures and word shapes are more/less distinctive.
2. Regular upright type (roman type) is found to be more/less legible than italic type.
3. Which of these two is more/most effective in terms of legibility?
4. Typefaces with serifs are often considered easier/ more difficult to read in long passages than those without.
5. Serif fonts are widely used for body text because they are considered better/best for comprehension.
6. Sans serif type is considered more/less suitable for large bodies because it is believed to retard text readability.
7. Bold font styles may be able to draw much/more attention but they are not so/more easy to read as the regular ones.
8. Times New Roman is the more/most common font for college papers
9. The sharper/ The sharpest the corners in an inscription, the easier/ the easiest it catches the attention of the viewer.
10. Serif fonts are much/by far the most commonly used fonts in large literary texts.