




'We Print with Pride.'

Let's Think! 

1. Have you ever heard of 3D printing?
2. Do you know what can be made with 3D printing?

[1] What is 3D printing?

3D printing, also known as additive manufacturing, is the process of producing a tangible, solid three-dimensional object by depositing specific materials layer by layer based on a digital model. Rather than a typical printer, it requires a 3D printer that is compatible with 3D modelling software to access digital files and able to deal with common printing materials in 3D printing, such as ABC plastic, nylon and resin. Owing to its versatility, 3D printing has been growing increasingly common in a vast variety of industries these days, and has even become indispensable in many applications.

[2] What do we do with 3D printing?

Tech Savvy is dedicated to providing the best 3D printing services for clients in the following industries: healthcare, architecture and fashion, areas where our expertise may be best utilised. We have been cooperating with local companies and international enterprises in these fields since 1992 and we take pride in offering our best to whoever needs our assistance.

Read paragraphs 1 and 2. Complete the summary table about the company.

Company's Name	
(i)	Tech Savvy
Areas of Expertise	
(ii)	Healthcare
(iii)	Architecture
(iv)	Fashion

[3] Healthcare

3D printing plays a crucial role in medical treatment, especially for people troubled by burns or fractured bones. With 3D printing techniques, artificial organs that are relatively less complex, like skin and bones, can be generated for surgical purposes and for transplantation. Before the advent of it, burn victims were provided with very restricted options to nurse their disfigured skin, with skin graft being the most common one and the most painful one. Now as technology advances, patients with bodily injuries have a better prospect of making a recovery that is less of a torturous journey.

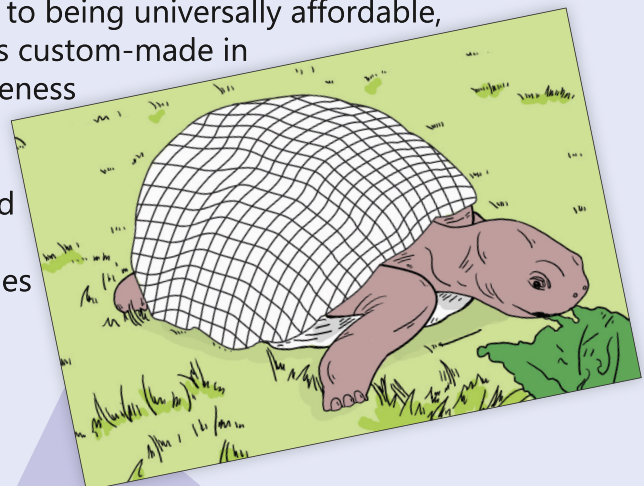
More to Take Away

3D printing enables consumers to use simplified web-based customisation software to order products they tailor-make themselves, hence lowering the cost for brands, designs and production.

STEAM

3D, the abbreviation for 'three-dimensional', describes things that look real and solid, with length, depth and height, instead of looking like a flat picture.

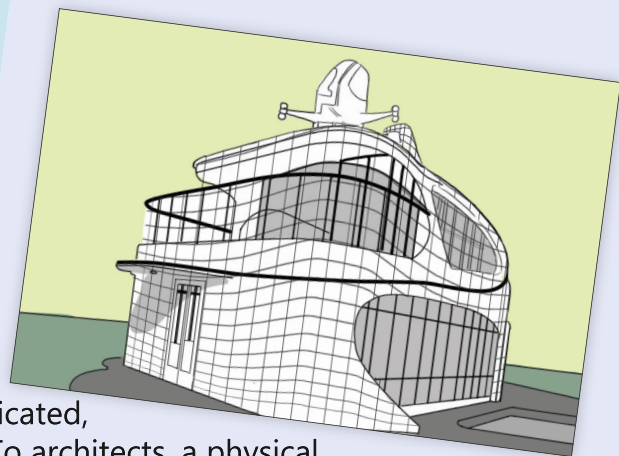
[4] A traditional prosthetic typically costs thousands while an average 3D-printed one is usually set at a much more economical price. In addition to being universally affordable, every 3D-printed prosthetic is custom-made in order to maximise its effectiveness to the user, which is why the use of the technology has become so commonplace and widespread that humans are no longer the sole beneficiaries of it.



Notable projects

2012 – a mechanical hand for James, an 8-year-old boy from Florida born without a right hand

2016 – a 3D-printed shell for Tom, a tortoise from Greece whose shell was seriously damaged



[5] Architecture

3D printing enables architectural designs, however complicated, to be quickly visualised in tangible models at a low cost. To architects, a physical architectural model is not only a tool of representation that gives life to a digital file, but also a tool used for getting a comprehensive picture of the design and to minimise the room for error. While manually producing a traditional physical model takes a fairly significant period of time and is costly, creating one with a 3D printer is comparatively much more convenient and modest. This explains why architects these days are more used to making models with 3D printing. In recent years, ¹the technique has been used to build life-size habitable houses, and we are honoured to have been one of the pioneers in this regard.

Notable projects

2017 – ‘Living in 3D’, fifteen 3D-printed single-storey houses in New Zealand built in 22 days

2019 – ‘Quick & Solid’, a two-storey villa in Japan built in 45 days

In this section, 3D printing is referred to as ‘the technique’ to reduce clumsiness stemming from repetition.

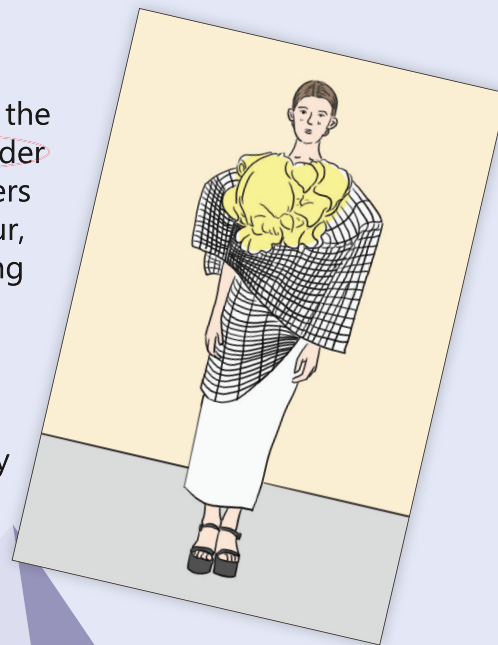
[6] Fashion

Being a novelty to the industry and designers across the globe, 3D printing has redefined the boundaries of fashion designs, opening the door to an infinite number of designs that designers used to consider impossible and therefore have never executed. Now with 3D printers and prepared materials, designers, whether experienced or amateur, can now see their wildest designs come into being. Besides allowing more innovative and unconventional designs, the versatility of this modern printing method has given rise to the application of zero-waste principles in the industry and the ever-growing trend of sustainable clothing because of its common use of recyclable or biodegradable materials. We are gratified to be part of this journey to a zero-waste future and to be able to make an influence.

Notable projects

2016 – ‘Green Vogue’, a fashion show held in Paris

2019 – ‘The Essence of Delicacy’, an exhibition-cum-workshop of 3D-printed jewellery held in Copenhagen



~670 words

Looking into Grammar

‘Used to’, followed by a bare infinitive, is used to talk about a past habit which is no longer true. ‘Be used to’, followed by a noun or gerund, is used to talk about being familiar with something regardless of time.

✓ She **used to** (✗ **was used to**) **finish** her tasks ahead of deadline, but now she can’t make it.

✗ She **was not used to** **work** (✓ **working**) under stress, but now she is.

? Circle an example each of ‘used to + ...’ and ‘be used to + ...’ in paragraphs 5 and 6.

Part A Multiple Choice Questions

Answer the following questions based on the information provided in the web page. Choose the best answer by blackening the appropriate circle.

1. 3D printers are _____.
- A. made of various materials
 - B. used in every industry
 - C. able to work with digital files
 - D. locally known for their popularity among manufacturers
2. Which of the following may NOT be a client of the 3D printing company's?
- A. a Korean casual wear retailer
 - B. a German construction company
 - C. a local hospital
 - D. a French automobile manufacturer

2 Think carefully about which industry each company belongs to.

3. _____ 3D printing became common, burn victims _____ to deal with their skin.
- A. Long before...had nothing
 - B. Soon after...had only one solution left
 - C. Before...did not have many choices
 - D. Long after...had a lot more ways



4. In paragraph 3, the word 'it' refers to _____.

- A. a 3D-printed prosthetic
- B. the price of a prosthetic
- C. 3D printing
- D. the establishment of the company

5. In paragraph 3, the word 'prospect' can best be replaced by '_____'.

- A. medication
- B. possibility
- C. future
- D. period

Q6: Remind students that in the passage, it is accentuated that every 3D-printed prosthetic is custom-made to maximise its effectiveness, which suggests that, by contrast, traditional prosthetics, which are manufactured in large quantities, are not as effective.



6. A traditional artificial limb is _____ than a 3D-printed one.

- A. commoner and more effective
- B. less common and more effective
- C. more expensive and less effective
- D. more expensive and more effective

7. Which of the following is NOT true?

- A. Architectural models can be cheaply produced using 3D printing.
- B. A physical model of a design can let its designer know more about it.
- C. The traditional way of building an architectural model is not inexpensive.
- D. A single-storey villa was built in Japan in less than two months with 3D printing.

8. What is the writer's attitude towards 3D printing?

- A. optimistic
- B. pessimistic
- C. neutral
- D. sympathetic

8 Pay attention to the writer's word choice and descriptions.



Self-evaluation Checklist

Please scan the QR code on P.6 to access the checklist for evaluating your own reading progress.

Part B Pre-HKDSE Questions

Answer the following questions based on the information provided in the web page. For questions 1 and 5, answer in complete sentences.

1. How does the slogan ‘We Print with Pride.’ relate to the business of Tech Savvy?

(Any reasonable answers)

Tech Savvy is proud of being a pioneering company whose expertise lies in 3D printing and being able to offer their best to whoever needs their assistance.

1 What does the company aim to do?



2. Look for a phrase in paragraph 6 that means ‘making something possible’.

opening the door to

Q2: Remind students to pay special attention to words ending in ‘-ing’ when looking for a phrase with a similar grammatical form.

3. Look for words in the web page to match the definitions below.

(i)	<u>expertise</u> (para. 1-2)	(n.)	special skill or knowledge
(ii)	<u>advent</u> (para. 2-3)	(n.)	the coming of an invention
(iii)	<u>disfigured</u> (para. 2-3)	(adj.)	spoilt in appearance
(iv)	<u>manually</u> (para. 4-5)	(adv.)	by hand
(v)	<u>executed</u> (para. 5-6)	(v.)	carried out



4. What kind of company is Tech Savvy and what has earned it a special status in the field? Complete the summary table below. Some of the details have been completed to help you.

Company’s name	Tech Savvy		
Company’s specialisation	(i) <u>3D printing</u>	4 Locate your answers by referring to the recurring words, as well as the headings and subheadings.	
Fields affiliated with the company and its remarkable projects	Healthcare	a 3D-printed mechanical hand	(ii) <u>a 3D-printed shell</u>
	(iii) <u>Architecture</u>	(iv) ‘ <u>Living in 3D</u> ’	‘Quick & Solid’
	(v) <u>Fashion</u>	‘Green Vogue’	(vii) ‘ <u>The Essence of Delicacy</u> ’

5. Summarise from two perspectives how 3D printing, as a novelty, has contributed to the fashion industry. (Any reasonable answers)

(i) It enables more innovative and unconventional designs to be actualised.

(ii) It plays a part in achieving a zero-waste sustainable future.

Part C Vocabulary Bank

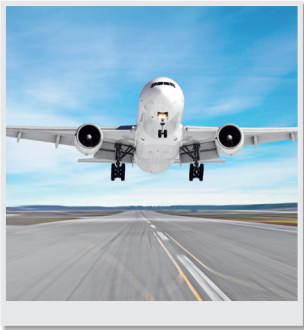
Label the photos below with the job sectors in which 3D printing is applied from the word box.

manufacturing
healthcare

dentistry
fashion

aviation
education

engineering
jewellery



1. aviation



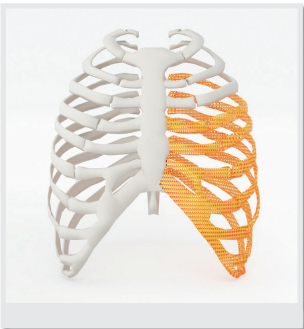
2. fashion



3. education



4. jewellery



5. healthcare



6. dentistry



7. manufacturing



8. engineering

Word Craft

In this regard (Refer to P.123.) (=on this particular point)
Words resembling in form can be quite confusing and their meanings can be entirely different.

e.g. regard (v.)	(=consider)
regard (n.) [uncountable]	(=respect)
regards (n.) [plural]	(=friendly greetings)
as regards (prep.)	(=in connection with)
regarding (prep.)	(=about)
regardless (adv.)	(=despite)

Let's Discuss!

1. Do you agree that 3D printing brings great convenience to many sectors?
2. Do you think that, with the prevalence of 3D printers, anybody can become an inventor? Share your thoughts.

Part D Cloze Passage

Complete the speech delivered by a principal on speech day below with the appropriate nouns for job sectors introduced on the previous page.

Dear students,

My congratulations to this year's graduates. With your university life coming to an end, ahead of you is a new journey. On this occasion, I'd like to talk about the first juncture most of you are going to face soon: choosing and taking up a career.

It's one of those annoying things that you know will strike you someday, but which, before that, you don't want to bother yourself with. And until it finally happens, you just won't want to have anything to do with it. At least that's true for me. I suggest you first single out something you think is important in life, and then choose a profession that contributes to the realisation of that important thing. A friend of mine who is legendary in his fussiness in regard to personal hygiene ended up in (1) dentistry. Another, who finds doctors' or nurses' effort to save lives heroic, got himself in the (2) healthcare industry. As for myself, I follow many others who have dedicated their lives to (3) education, out of the lofty ideals of passing knowledge on to the next generation and nurturing them as moral individuals.

All my examples so far belong to what people call the 'more noble, worthy and high-minded' professional fields. Sometimes, however, it's fine if it's simply your talent or instinct that leads you to a particular field, as long as it gives you a way of life in which you're content with what you do. Say, if you're the kind of person who keeps yourself updated with the latest clothing coordination, the (4) fashion field and you could be a perfect match. Or if you grew up with a fondness for mechanical things like cars, watches, buildings and machines, you may be naturally drawn to fields like (5) manufacturing/engineering or (6) engineering/manufacturing.

I don't want to sound as though getting the right job is all that matters in life, but it's indeed a big part of living well. An aeroplane enthusiast can conquer his acrophobia only to work in (7) aviation, so will a handicraft enthusiast not let her colour blindness stop her from pursuing her passion for (8) jewellery. That's how entering a suitable field can help you overcome obstacles in life, just as passion and a positive mindset can.