Technology of the future

VOCABULARY PRACTICE
UPPER-INTERMEDIATE | B2

Name: _____ Date: _____

1 Match each precise term with its definition.

1 exponential growth ____	**a** growth that accelerates over time rather than at a constant rate
2 general-purpose technology ____	**b** a technology, like electricity, that transforms many different sectors of the economy
3 speculative technology ____	**c** a technology still theoretical or unproven, without confirmed practical application
4 technological convergence ____	**d** the merging of previously separate technologies into a single integrated system
5 diffusion of innovation ____	**e** the process by which a new technology gradually spreads through a population
6 adoption curve ____	**f** the pattern showing how different groups adopt a new technology over time
7 first-mover risk ____	**g** the risk taken by an entity that acts before a technology or market is fully proven
8 emerging technology ____	**h** a technology in the early stages of development with significant future potential
9 scalability ____	**i** the capacity of a technology or system to expand to meet growing demand
10 proof of concept ____	**j** a demonstration confirming that an idea is practically feasible

2 Choose the word with the most suitable connotation.

1 For growth accelerating over time: exponential growth / constant linear growth.

2 For a technology transforming many sectors: general-purpose technology / a niche application.

3 For a technology still theoretical and unproven: speculative technology / an established product.

4 For previously separate technologies merging: technological convergence / strict separation.

5 For the process of a new technology spreading: diffusion of innovation / static market share.

6 For the risk of acting before a technology is proven: first-mover risk / guaranteed success.

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7 For a technology in early development with future potential: emerging technology / mature technology.

8 For a demonstration confirming feasibility: proof of concept / an unfounded claim.

3 Complete the future-tech collocations with one word.

1 _____ growth (= accelerating rather than constant)

2 a general-_____ technology (= transforms many sectors)

3 a _____ technology (= theoretical, unproven)

4 technological _____ (= merging of separate technologies)

5 the _____ of innovation (= the spread of a new technology)

6 an _____ curve (= a pattern of adoption over time)

7 face first-mover _____ (= risk of acting before proven)

8 demonstrate _____ of concept (= confirm feasibility)

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4 Complete the case notes with words and phrases from the box.

adoption curve | diffusion of innovation | emerging technology | exponential growth | first-mover risk | general-purpose technology | proof of concept | scalability | speculative technology | technological convergence

Case A: Analysts noted the technology's 1 _____, with adoption doubling roughly every eighteen months.
Case B: The innovation was described as a 2 _____, comparable in scope to electricity, given its potential to reshape nearly every sector.
Case C: While the technology remains 3 _____ for now, some investors believe practical applications will follow within the decade.
Case D: Engineers demonstrated 4 _____, confirming the basic idea worked before pursuing full development.
Case E: The merger of two previously separate industries reflected broader 5 _____ across the sector.
Case F: Researchers studying 6 _____ examined why some innovations spread quickly while others stall despite clear advantages.
Case G: Early adopters accepted considerable 7 _____, investing before the technology had proven commercially viable.
Case H: The startup addressed key concerns about 8 _____, demonstrating the system could handle rapidly growing demand. Investors tracked its position on the 9 _____, while others remained cautious about 10 _____ still years from practical deployment.

5 Read the text and answer the questions briefly.

Why adoption curves matter more than invention dates

Technology historians increasingly emphasise that a technology's ultimate impact depends far more on its diffusion of innovation than on the precise date of its original invention. Many transformative technologies existed in some rudimentary form decades before their eventual widespread adoption, constrained by factors unrelated to the core invention itself, such as insufficient supporting infrastructure, unfavourable regulation or simply premature market readiness. This distinction matters considerably for forecasting: predicting when a speculative technology will achieve proof of concept says relatively little about when, or whether, it will actually reshape society, since the adoption curve depends on numerous social and economic factors extending well beyond the technology's underlying technical merit.

1 What do technology historians increasingly emphasise? _____

2 What did many transformative technologies exist as, decades before adoption? _____

3 Give two factors that constrained early adoption, according to the text. _____

4 Why does this distinction matter considerably for forecasting? _____

5 What does predicting proof of concept say relatively little about? _____

6 What does the adoption curve depend on, beyond technical merit? _____

6 Rewrite each sentence using the word in capitals. Do not change the meaning.

1 The technology's use doubled roughly every year and a half. EXPONENTIAL GROWTH _____

2 The idea was confirmed as practically feasible in early testing. PROOF OF CONCEPT _____

3 The two previously separate technologies merged into one system. TECHNOLOGICAL CONVERGENCE _____

4 The startup showed the system could grow to meet rising demand. SCALABILITY _____

OVER TO YOU

Write a 120-150 word account analysing why some emerging technologies achieve rapid adoption while others stall for decades, distinguishing observation from speculation.

[ ] Use at least twelve target expressions. [ ] Control connotation carefully. [ ] Avoid unsupported assumptions.

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ANSWER KEY

1 Precise terms

1 a 2 b 3 c 4 d 5 e 6 f 7 g 8 h 9 i 10 j

2 Connotation

1 exponential growth 2 general-purpose technology 3 speculative technology 4 technological convergence 5 diffusion of innovation 6 first-mover risk 7 emerging technology 8 proof of concept

3 Collocations

1 exponential 2 purpose 3 speculative 4 convergence 5 diffusion 6 adoption 7 risk 8 proof

4 Case notes

1 exponential growth 2 general-purpose technology 3 speculative technology 4 proof of concept 5 technological convergence 6 diffusion of innovation 7 first-mover risk 8 scalability 9 adoption curve 10 emerging technology

5 Reading - suggested answers

1 That a technology's ultimate impact depends far more on its diffusion of innovation than on the precise date of its original invention.
2 In some rudimentary form.
3 Any two: insufficient supporting infrastructure, unfavourable regulation, premature market readiness.
4 Because predicting proof of concept says little about when a technology will reshape society.
5 When, or whether, it will actually reshape society.
6 Numerous social and economic factors.

6 Rewriting - possible answers

1 The technology showed exponential growth. 2 They achieved proof of concept.
3 There was technological convergence. 4 They demonstrated scalability.

Over to you

Answers will vary. Check lexical precision, appropriate connotation and separation of fact from inference.