



# SpaceX



# Instant Lessons

EXAMPLE

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## Lesson Plan: SpaceX **EXAMPLE**

**Lessons:** Introduction, reading, listening, speaking (seminar) and writing.

**Time:** 1-1.5 hours + homework task

**Level:** \*\*\*\*[B1/ B2/C1].

### Lesson Aim:

*To focus on one key topic and develop a range of key academic skills based on this topic.*

### Introduction [5 minutes]

- Introduce the topic 'SpaceX'.
- Give out the '**Reading Text Worksheet**' and discuss the lead in questions.

### Reading: Test-Type Questions [20-30 minutes + feedback]

- Students read the text. Check words & meanings with a dictionary.
- Answer the questions.
- Feedback: distribute or project **ANSWERS**.

### Listening: Lecture & Test Questions [30-40 minutes + feedback]

**Video:** Available in paid download

**MP3:** Available in paid download

- Give out the '**Listening: Mini Lecture Worksheet**'.
- Students check key vocabulary.

#### **Option 1**

- Students look at the questions.
- Students listen & answer the questions.
- Give 2 minutes to tidy answers.
- Students listen again. Check answers & answer missed questions.
- Feedback: distribute or project **ANSWERS**.

#### **Option 2 (harder)**

- Students listen & take notes (Use paper or the PPT slides in the Appendix).
- Students listen again & add to their notes.
- Students use their notes to answer the questions.
- Feedback: distribute or project **ANSWERS**.

### Speaking: Seminar [10-15 minutes]

- Give out the '**Speaking Worksheet**'.
- Students revise content from the reading & lecture texts.
- Students hold a seminar discussion using the question prompts.  
How to run a seminar: <https://www.academic-englishuk.com/seminars>

### Writing: Summary [20 minutes + tutor feedback]

- This can be a homework task if limited time.
- Students use the two texts (reading and listening) to write a 150-word paragraph on 'how SpaceX [redacted] aerospace'.
- Tutor to error correct & return: <https://www.academic-englishuk.com/error-correction>

## Reading Text Worksheet

### Task 1: Lead In

1. What do you know about previous missions to space?
2. Why do you think [redacted]?
3. Look at the title of the reading text – what do you think it is about?

### Task 2: Reading Text    **SpaceX: making humanity multiplanetary**

By H. Kennedy (2022)

Space Exploration Technologies Corporation, or SpaceX as it is more widely known, is the world's first [redacted]. Formed in 2002, and founded by Tesla CEO Elon Musk, the start-up, at present valued at over \$70bn, has since made a total of 125 launches and over 80 landings. SpaceX's [redacted] which transport crew and cargo, and Starship, whose aim is to transport humans to Mars.

During the [redacted], SpaceX rockets have broken several records. For example, SpaceX (2021) reports that in 2015, the [redacted] to complete a landing after having been the furthest in space, and just two years later the launch system enabled the first ever re-flight, a total which now stands at 66. In the following year, SpaceX introduced [redacted], considered [redacted], thanks to its incredible thrust at lift-off which is equivalent to almost eighteen 747 jets. SpaceX also claims it is capable of [redacted] equal to the [redacted] to orbit. The Dragon rocket has also experienced relative success with regard to its visits to the International Space Station. It made history in 2020 when the [redacted] became the first [redacted] to and from the ISS (SpaceX, 2021). Just one year later, the Cargo Dragon, made its second journey to the ISS as part of [redacted]. According to Gaskill (2021), the second mission will involve research experiments such as how to treat kidney stones and other kidney- [redacted] and [redacted] system which requires less water and pesticides.

Aside from rockets, SpaceX has also begun to utilize [redacted] to offer high-speed Internet to remote areas. Despite concerns from astronomers that these low-orbit satellites would cause [redacted] SpaceX has revealed that future ones "will be blackened and equipped with visors that block sunlight" (Mann, 2020). Ultimately, SpaceX argues that its mission is to make [redacted]. Their main focus remains firmly on the [redacted] as demonstrated by the company's recent activities involving testing potential spacecrafts in addition to gauging where landings could take place. Its more ambitious plan though [redacted] in order to [redacted] and [redacted] on Mars (Bartels, 2020).

### References

- Bartels, M., 2020. *SpaceX wants to send people to Mars. Here's what the trip might look like* [online]. Available at: <https://www.space.com/spacex-plans-journey-to-mars.html> [Viewed 17.02.2022].
- Gaskill, M., 2021. *SpaceX's 22nd Commercial Resupply Mission to Space Station Launches Water Bears, Squid, Solar Panels* [online]. Available at: [https://www.nasa.gov/mission\\_pages/station/research/news/spacex-22-research-highlights](https://www.nasa.gov/mission_pages/station/research/news/spacex-22-research-highlights) [Viewed 18.02.2022].
- Mann, A., 2020. *SpaceX now dominates rocket flight, bringing big benefits—and risks—to NASA* [online]. Available at: <https://www.sciencemag.org/news/2020/05/spacex-now-dominates-rocket-flight-bringing-big-benefits-and-risks-nasa> [Viewed 11.02.2022].
- SpaceX., 2021. *Making History* [online]. Available at: <https://www.spacex.com/mission/> [Viewed 17.02.2022].

## Reading Text Questions

### Task 3: Headings

Choose a subheading for each paragraph. One title is not needed.

1		A	Why SpaceX's value is so high
2		B	
3		C	Introduction to SpaceX
		D	

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### Task 4: True, False or Not Given

Decide if these statements are true (T), false (F) or not given (NG). Highlight the answer in the text.

		T / F / NG
1	SpaceX is the world's first privately-funded firm worth over \$70bn.	
2	The	
3	Falcon 9 is the first-ever rocket to complete a landing.	
4	In 2020,	
5	Dragon's second mission to the ISS in 2021 will involve science and research experiments.	
6	SpaceX aims to make Commercial Resupply Services.	
7	SpaceX plans to use Starlink to travel to the Red Planet.	
8		

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### Task 5: Vocabulary

Key language – search for the word(s) in the text that mean(s):

Paragraph		Word(s)
1		
2	The curved path in space through which objects move around a planet, moon or star.	
2		
2	The amount or weight of things or people that a spacecraft carries.	
2	Waste products in the blood that form crystals inside the kidneys.	
3		
3		

\_\_\_ / 7

Total Score \_\_\_ / 18

## Listening: Mini Lecture Worksheet

### Task 1: Key Vocabulary

Check these words and phrases before listening:

uncrewed		decelerate		aerodynamically	
	withstand		observatory		evoke

### Task 2: Lecture Listening

Listen to the lecture on SpaceX and answer the following questions:



#### 2.1 Gap Fill

Complete the outline of Musk's plan. The first letter is already given.

Elon Musk's ambitious plan to create a human p\_\_\_\_\_ on \_\_\_\_\_ to begin in as early as 2026, via a r\_\_\_\_\_

\_\_\_\_ / 2

#### 2.2 Name ONE characteristic of the Super Heavy rocket.

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\_\_\_\_ / 1

#### 2.3 Open Questions

Answer these questions about the Starship spacecraft.

i.	How big is Starship?	
ii.		
iii.	How much further did the SN15 prototype travel?	
iv.		
v.	Where else will Starship travel to?	

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#### 2.4 Multiple Choice

Answer these questions about the pros and cons of Starship. Select ONE answer only per question.

i.	What advantage is there of being able to _____	A. Learn more about the surrounding planets.
		_____
		C. Experience life on Mars.
ii.	How does Musk's estimation of the cost to launch Starship compare to others?	_____
		B. Musk's is higher.
		_____
iii.	_____ a poor decision by some experts?	A. It will waste a lot of fuel.
		B. It will cause obstructing dust and rocks.
		_____
iv.	_____ concerned about?	A. The other landers.
		_____
		C. The introduction of microbes from Earth.

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#### 2.4 Gap Fill

What does the lecturer say about the possibility of humans inhabiting Mars? Complete the gaps.

Considering the \_\_\_\_\_ made by SpaceX, it is not unrealistic to expect \_\_\_\_\_ in a few years. However, humans \_\_\_\_\_ and \_\_\_\_\_ to Mars seems less likely.

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**Total Score** \_\_\_\_ / 14

## Speaking Worksheet

### Discussion

Use the two texts (reading and listening) to discuss these questions:

#### Key Sources:

Reading: <b>Kennedy (2022)</b> SpaceX (2021) Gaskill (2021) / Bartels (2020)	Lecture: <b>Watts (2022)</b> Wall (2020) / Mann (2020)
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### Seminar Questions

- 1) What makes SpaceX unique?
- 2) Why [REDACTED]
- 3) What are the positive and negative impacts of this?
- 4) Do you agree with [REDACTED]
- 5) Summarise your discussion.  
(Each person summarises one main interesting point discussed).

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## Writing Task

### Summary

Use the two texts (reading and listening) to write a paragraph on ' [REDACTED] a difference [REDACTED]'

Write 150 words:

## Reading ANSWERS

### Task 3: Headings

Choose a subheading for each paragraph. One title is not needed.

1	C	A	Why SpaceX's value is so high
2	D	B	SpaceX's vision for the future

**ALL ANSWERS ARE INCLUDED IN PAID VERSION...**

## Listening ANSWERS

### 2.1 Gap Fill

Complete the outline of Musk's plan. The first letter is already given.

Elon Musk's ambitious plan to create a human *presence* on Mars is thought to begin in as early as 2026, via a *reusable* spacecraft and booster rocket to carry cargo and crew.

\_\_\_\_ / 2

**ALL ANSWERS ARE INCLUDED IN PAID VERSION...**

## SpaceX: The Colonisation of Mars

by C. Watts (2022)











*Hello and welcome to this short lecture about SpaceX's plan to colonise Mars. A few years ago, SpaceX founder Elon Musk declared it a priority to have a human presence on Mars. He strongly believes the first-ever mission to take humans to the Red Planet could happen in 2026, and uncrewed missions could take place even earlier. For this ambitious plan, a fully reusable spacecraft and booster rocket will be used to transport both cargo and crew.*

**THE FULL TRANSCRIPT IS INCLUDED IN THE PAID VERSION...**



## Appendix: PowerPoint Slides

Listen to the lecture and take notes using the PPT slides

<p style="text-align: center;"><b>SpaceX</b></p> <div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: right;"><small>AE Academic English UK</small></p>	
<p style="text-align: center;"><b>Rockets &amp; Spacecraft</b></p> <div style="display: flex; justify-content: space-around;">    </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <p>Super Heavy rocket</p> <p>Saturn V</p> <p>Starship</p> </div> <p style="text-align: right;"><small>AE Academic English UK</small></p>	
<p style="text-align: center;"><b>Starship</b></p> <div style="display: flex; justify-content: space-around;">    </div> <p style="text-align: center; margin-top: 5px;">SN15</p> <p style="text-align: right;"><small>AE Academic English UK</small></p>	
<p style="text-align: center;"><b>Starship's advantages &amp; people's concerns</b></p> <div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: right;"><small>AE Academic English UK</small></p>	