

## Masters of the elements

**Level:** Intermediate–advanced

**Time:** 90 minutes +

**Summary:** This lesson is about the Netherlands and how the country's geography has led the Dutch to be especially innovative and creative. In this lesson, students:

1. complete a quiz on the Netherlands;
2. explore a text about the country;
3. prepare and give a presentation on one aspect of Dutch culture.

**Materials:** One copy of the worksheet per student; one copy of the vocabulary record per student

**Group size:** Any

**Note:** This lesson plan for both pre-experience and in-work business students is based around an original article first published in *Business Spotlight* issue 3/2015.

### Quiz

Alone or in pairs, students complete the general knowledge quiz about the Netherlands. They then find their own words to describe the country and what it means to them.

**Key:**

1. Germany and Belgium
2. the North Sea
3. flooding; because much of the country is below sea level and the rest is very low and flat
4. the Dutch
5. Amsterdam (The Hague is the seat of government.)
6. (suggested answers) shipping, fishing, agriculture, trade, banking, chemicals, metallurgy, machinery, electrical goods, tourism

**Extension:**

Find out whether any of the students have ever been to the Netherlands. If so, ask them to share their impressions of the country and its people with the class.

### Key words

Students read the definitions and match them to the key words. Then, they should read the article to find

the words and see how they are used in context. The definitions are listed in the order that the words and phrases appear in the article.

This task can be divided up between students, one half doing 1 to 10, the other half doing 11 to 20. After they have found the words, they should share their answers with each other.

**Key:**

1. homage
2. construction firm
3. initiative
4. energy grid
5. pragmatism
6. wits and spirit
7. legacy
8. exploit
9. domestic market
10. flourished
11. hubs
12. dykes
13. fruits
14. choppy waters
15. straight As
16. knowledge economy
17. indebtedness
18. well below
19. public-sector
20. corruption

### Teaching and learning strategy: information gap activities

Some students have difficulty jumping straight into reading activities. Tasks carried out before reading can be very beneficial for students and can help greatly in enabling them to understand the text.

Pre-reading tasks often activate background knowledge, allowing the teacher to see the extent of the students' interest in and pre-knowledge about the subject of the reading text. Such tasks also help to check students' understanding of key vocabulary necessary to understand the text or help to provide them with that vocabulary.

This preparation work is what helps students connect the new information to what they already know and, ultimately, creates a purpose for reading.

## Masters of the elements

### Find the information

Students scan the article to find the answers to the questions.

**Key:**

1. a cycle path that is illuminated by thousands of solar-powered cells, representing stars
2. 1581
3. 1609–1713
4. Britain, Spain and Portugal
5. Schiphol
6. dykes, surge barriers and canals also help to manage the water
7. The Dutch education system places less emphasis on students getting top marks and PhDs and more on them being creative and understanding the big picture. As a result, they may lack formal qualifications.

### About the article

Students find the mistake in each sentence and correct it.

**Key:**

1. The Dutch are developing interactive highways that use ~~wind~~ solar power for street lighting and traffic signs.
2. If every Dutch roof had a solar panel, this would provide ~~at~~ 25% of the country's energy.
3. As early as the 1200s, windmills were used to ~~dig~~ ~~canals~~ grind grain, pump water and saw wood.
4. In the seventeenth century, arts and sciences flourished and the Netherlands was a powerful ~~mining~~ trading and colonial empire.
5. ~~Three quarters~~ A quarter of the Netherlands lies below sea level and the rest is not even a metre above it.
6. The Netherlands is the world's ~~biggest~~ second-biggest exporter of agricultural products.
7. The Dutch are global leaders in water management and ~~ship~~ building technology.
8. They are pioneers in ~~reclaimed~~ floating cities and buildings, and are learning to live with water instead of fighting it.
9. A cooperation between businesses transfers ~~electricity~~ heat generated by factories to greenhouses to help grow the flowers, plants, fruit and vegetables.
10. The Netherlands is a global leader in transport, logistics, ~~energy~~ wholesale, food and chemical industries.

### Adjectives

Students first match the adjectives on the left with the words on the right to make collocations from the article.

Then, they should decide which other combinations are possible or even more likely, for example *twinkling stars* and *floating sailing vessel*. Finally, they should think of other words that collocate with the adjectives, for example *interactive workshop* and *iconic figure*.

**Key:**

1. i
2. f
3. a/h
4. a/h
5. e
6. c
7. l
8. d
9. m
10. b
11. g
12. j
13. k

### Watery expressions

Students complete the expressions with the missing vowels and try to use each expression in a sentence of their own.

**Key:**

1. harness the elements – get control of the weather and use it for a particular purpose
2. master the waves – become an expert in navigating the sea
3. tame the sea – bring the sea under your control
4. enter choppy waters – face difficult times

### Webquest

Students research one of the topics and give a presentation on it.

The link will take students to the website of the company that built the cycle path mentioned at the beginning of the article, where they can watch a video of the path.

### Vocabulary record

Here, students should be encouraged to record all of the new and useful vocabulary they have learnt during the lesson, not only in the form presented in the article but also in related forms

## Masters of the elements

### Related topics on onestopenglish

The following Business Spotlight lesson discusses why we should consider becoming specialists rather than generalists (the Dutch are described as generalists in the article students have just been studying):

[www.onestopenglish.com/business/business-spotlight/specialist-or-generalist/550367.article](http://www.onestopenglish.com/business/business-spotlight/specialist-or-generalist/550367.article)

Students explore a Vermeer painting and learn more about the Dutch Golden Age in this webquest:

[www.onestopenglish.com/clil/secondary/english-across-the-curriculum/cross-curricular-webquests/pdf-content/johannes-vermeers-girl-with-a-pearl-earring-webquest/500508.article](http://www.onestopenglish.com/clil/secondary/english-across-the-curriculum/cross-curricular-webquests/pdf-content/johannes-vermeers-girl-with-a-pearl-earring-webquest/500508.article)

## Masters of the elements

### 1 Quiz

Answer these questions about the Netherlands.

- Which two countries does the Netherlands share borders with? \_\_\_\_\_
- On which sea is the Netherlands situated? \_\_\_\_\_
- What natural danger does it constantly face and why? \_\_\_\_\_
- What are the people from the Netherlands called in English? \_\_\_\_\_
- What is the capital of the Netherlands? \_\_\_\_\_
- What areas of business do you associate with the Netherlands? \_\_\_\_\_
- What three adjectives would you use to describe the Netherlands? \_\_\_\_\_

### 2 Key words

Match the key words to the definitions. Then, find the key words in the article.

construction firm	domestic market	exploit	legacy	initiative
homage	energy grid	flourished	pragmatism	wits and spirit

- a way of showing respect to an artist, writer, musician, etc by using their style or ideas in your own work (para 2) \_\_\_\_\_
- a company that builds roads, bridges, buildings, etc (para 3) \_\_\_\_\_
- an important action that is intended to solve a problem (para 3) \_\_\_\_\_
- the system of wires that connects the places where electricity is produced (para 3) \_\_\_\_\_
- a practical way of thinking or dealing with problems that emphasizes results and solutions more than theories (para 4) \_\_\_\_\_
- the ability to think quickly and make sensible decisions, and a positive attitude to life (para 4) \_\_\_\_\_
- something such as a tradition or way of thinking that exists as a result of something that happened in the past (para 4) \_\_\_\_\_
- to use natural resources such as trees, water or oil so that you gain as much as possible (para 5) \_\_\_\_\_
- the economic system within a country in which prices, salaries and the supply of goods are controlled by what and how much people buy (para 5) \_\_\_\_\_
- grew and was successful (para 6) \_\_\_\_\_

choppy waters	dykes	hubs	knowledge economy	straight As
corruption	fruits	indebtedness	public-sector	well below

- the most important places where particular activities take place (para 6) \_\_\_\_\_
- walls that prevent a river, lake or sea from flooding the land (para 8) \_\_\_\_\_
- the good results that you get from something such as hard work (para 12) \_\_\_\_\_
- difficult times (para 12) \_\_\_\_\_
- all top marks on a report card (para 12) \_\_\_\_\_
- an economy in which growth is dependent on the quantity, quality and accessibility of the information available, rather than the means of production (para 13) \_\_\_\_\_
- the fact of owing money (para 14) \_\_\_\_\_
- much lower than (para 15) \_\_\_\_\_
- the industries and services, for example schools and hospitals, that are supported by tax money and controlled by the government of a country (para 15) \_\_\_\_\_
- dishonest or illegal behaviour by officials or people in positions of power, especially when they accept money in exchange for doing things for someone (para 15) \_\_\_\_\_



## Masters of the elements

### 3 Find the information

Scan the article to find the answers.

1. What has been built in Eindhoven, in memory of Vincent Van Gogh? \_\_\_\_\_
2. When was the Dutch Republic created? \_\_\_\_\_
3. When was the Dutch Golden Age? \_\_\_\_\_
4. Which other countries were involved in the Era of Exploration? \_\_\_\_\_
5. What is the name of Amsterdam's international airport? \_\_\_\_\_
6. What have the Dutch built to keep the sea from flooding the land? \_\_\_\_\_
7. Why are young Dutch people said to be at a disadvantage in the international job market? \_\_\_\_\_

## Masters of the elements

by Vicki Sussens



**For the Dutch, a former leading trading nation, developing richly diverse ways of using water was essential for their survival. Vicki Sussens shows that, today, their business life is still marked by pragmatism and creativity.**

and spirit of its people, became such a powerful trading nation during the Dutch Golden Age (1609–1713) and why that legacy continues today.

5

1 Imagine flying through the swirling stars of Vincent van Gogh's *Starry Night* painting. Now, you almost can – by riding along the Van Gogh Bicycle Path in Eindhoven, the Netherlands. Dutch artist Daan Roosegaarde has recreated van Gogh's stars using thousands of twinkling solar-powered cells built into the path.

2 The work is a futuristic homage to the town's famous resident, who died 125 years ago, and an experiment in creating "smart highways" – roads that generate energy. "We have taken an element of the past and an element from the future to create a landscape that is both functional and imaginative," says the artist.

3 Roosegaarde is working with the construction firm Heijmans to develop interactive highways that use solar power for street lighting and traffic signs that adapt to the road conditions. This is part of a wider initiative to turn the country's roads and bicycle paths into sources of solar energy that can be connected to the national energy grid. It is a solution to one of the country's oldest problems – being so small. Even if every Dutch roof had a solar panel, this would provide only 25 per cent of the country's energy. But the Netherlands has over 135,000 kilometres of roads.

4 "It is this pragmatism, combined with innovativeness and creativity, that characterizes the Dutch business culture," says Dutch intercultural expert Eleonore Breukel. It also explains why such a small country, with few resources besides the wits

The Dutch are experts at creating global industries out of little more than sun, sea, wind and, more recently, hot air. For over 400 years, they have built on their skills in trade and in harnessing the elements. In more recent times, they have used these skills to exploit the gas and oil reserves discovered in the 1950s. As early as the 1200s, the Dutch used windmills to grind grain for their bread, pump water and saw wood. In 1581, when the Dutch freed themselves from Spanish domination and created the Dutch Republic (also known as the Republic of the United Netherlands), they had a tiny domestic market and few products to export other than cheese. So they built an innovative sailing vessel, the "flute", and joined the British, Spanish and Portuguese in the Era of Exploration. The flute held twice the cargo and cost half as much to build as their rivals' vessels and helped the Netherlands become a powerful trading and colonial empire in the seventeenth century.

6

By mastering the waves, the Dutch created a strong domestic and export market, not only for trade but also for ideas. The arts and sciences flourished during the seventeenth century, with the ports of Amsterdam and Rotterdam attracting the European intelligentsia. Today, the country continues to draw international trade to its shores, with Rotterdam, Europe's largest port, and Schiphol Airport in Amsterdam acting as important logistics hubs. The Netherlands is the EU's second-largest, and the world's fifth-largest, exporter. Trade has given the Dutch a strong international focus, according to Holland Trade, which promotes cooperation between Dutch and international firms. One result of this is that the Dutch government works closely with business partners to promote and encourage foreign investment.

## Masters of the elements

**7** As well as mastering the waves, the Dutch have also tamed the sea. Left to nature, the sea would regularly flood two thirds of the Netherlands. Situated on a delta, a quarter of the country lies below sea level, with the rest not even a metre above it. In the sixteenth century, windmills were used as water pumps to drain land for farming in the provinces of North and South Holland. Almost half of the Netherlands is reclaimed land. The new farms caused grain production and dairy farming to flourish. Today, they are the world's second-biggest exporter of agricultural products after the United States.

**8** To keep the sea at a respectable distance, the Dutch erected a complex system of dykes and surge barriers. They also built their cities on canals, which are used not only for the transportation of goods but also to manage the water and act as a defence against flooding. Amsterdam's famous canals, now a UNESCO heritage site, were built in the early-seventeenth century and are a masterpiece of town planning. The Dutch are now global leaders in water management and technology.

**9** Recently, Dutch firms have carried their control over the sea one step further, pioneering floating buildings and cities as a solution to rising sea levels. One of them is the developer Dutch Docklands, which describes itself as having "learned to live with the water instead of fighting it". It works closely with the firm of architects Waterstudio, run by award-winning architect Koen Olthuis.

**10** "The climate change generation is no longer interested in iconic architecture but is looking for iconic solutions," says Olthuis. "It is not the result of the individual architect that counts but the effect on society." Perhaps their most futuristic work is the Krystall hotel, which will open at the end of 2016. Designed to look like a giant floating snowflake, it is being built in the icy seas near the city of Tromsø, in Norway. The hotel will have glass roofs so guests can watch the Northern Lights. Its hallways will be lined with futuristic blue shapes and fireplaces will be covered in transparent blocks to look like ice.

**11** In another innovation, the Dutch have literally created an industry out of hot air. Its horticulture sector is a global supplier of flowers, plants, fruit and vegetables.

Adapted from © Business Spotlight, 3/2015  
[www.business-spotlight.de](http://www.business-spotlight.de)

**12** One of the fruits of the close cooperation between business and research institutes was the idea of transferring heat generated by factories and IT centres to greenhouses. As a trade and innovation hub that attracts major business, the Netherlands remains the multicultural centre it was in the Golden Age. Yet, despite these positive developments, the Dutch are entering choppy waters. "The Dutch are generalists but the global economy increasingly demands specialists," says Breukel. "We teach our children from a young age to question, to be creative and to connect the dots so they can understand the big picture. We place less importance on our children getting straight As or PhDs."

**13** This puts young Dutch people at a disadvantage in the highly competitive international job market, where qualifications are essential and the future of jobs lies in technology and the knowledge economy. There is now a debate in the Netherlands about the need to change the education system and introduce policies that will encourage more specialization and promote even more innovation.

**14** According to a 2014 OECD report on the effectiveness of innovation policies in the Netherlands, the country needs to take action to keep its high living standards. While it is a global leader in the transport, logistics, wholesale, food and chemical industries, the country is behind in other global growth areas such as energy, construction, telecommunications and business services. Other threats identified by the OECD are: low graduation success rates in tertiary education, a banking sector that is still threatened by high household indebtedness and the difficulties smaller businesses have in getting loans. In 2013, the country dropped from fifth to eighth place in the World Economic Forum's "Global Competitiveness Report".

**15** However, as the OECD report says, the country has a stable political and financial climate. Unemployment, at 6.5 per cent, is well below the EU average of 10 per cent and confidence in government institutions is high. In 2013, the Netherlands was ranked as the eighth-cleanest country in the world with regard to public-sector corruption, according to Transparency International's "Corruption Perceptions Index".

### 4 About the article

Each of these sentences about the article contains a mistake. Find the mistakes and correct them.

1. The Dutch are developing interactive highways that use wind power for street lighting and traffic signs.
2. If every Dutch roof had a solar panel, this would provide all of the country's energy.
3. As early as the 1200s, windmills were used to dig canals, pump water and saw wood.
4. In the seventeenth century, arts and sciences flourished and the Netherlands was a powerful mining and colonial empire.

## Masters of the elements

5. Three quarters of the Netherlands lies below sea level and the rest is not even a metre above it.
6. The Netherlands is the world's biggest exporter of agricultural products.
7. The Dutch are global leaders in water management and ship building.
8. They are pioneers in reclaimed cities and buildings, and are learning to live with water instead of fighting it.
9. A cooperation between businesses transfers electricity generated by factories to greenhouses to help grow the flowers, plants, fruit and vegetables.
10. The Netherlands is a global leader in transport, logistics, energy and chemical industries.

### 5 Collocations

- a. Match the words to make collocations from the article.
- b. What other possible combinations are there? For example, *futuristic architecture*.
- c. What other nouns could adjectives 1 to 13 describe?

- |                   |                             |
|-------------------|-----------------------------|
| 1. swirling       | a. landscape                |
| 2. twinkling      | b. work                     |
| 3. functional     | c. sailing vessel           |
| 4. imaginative    | d. buildings                |
| 5. interactive    | e. highways                 |
| 6. innovative     | f. solar-powered cells      |
| 7. reclaimed      | g. blocks                   |
| 8. floating       | h. landscape                |
| 9. iconic         | i. stars                    |
| 10. futuristic    | j. centre                   |
| 11. transparent   | k. international job market |
| 12. multicultural | l. land                     |
| 13. competitive   | m. architecture             |

### 6 Watery expressions

Complete the expressions from the article with the missing vowels. Explain what they mean in your own words. Then, use each expression in a sentence of your own.

1. h \_ m \_ ss    th \_ \_ l \_ m \_ nts \_\_\_\_\_
2. m \_ st \_ r    th \_ w \_ v \_ s \_\_\_\_\_
3. t \_ m \_    th \_ s \_ \_ \_\_\_\_\_
4. \_ nt \_ r    ch \_ ppy    w \_ t \_ rs \_\_\_\_\_

### 7 Webquest

Research and present on one of the following topics.

- Rotterdam, Europe's largest port
- The Hague and the International Court of Justice
- Amsterdam and its unique tourist attractions
- Dutch windmills, tulips and cheese
- Amsterdam and diamonds

Follow the link to find out more about the *Starry Night* cycle path.

[www.heijmans.nl/en/projects/van-gogh-roosegaarde-cycle-path/](http://www.heijmans.nl/en/projects/van-gogh-roosegaarde-cycle-path/)

© Macmillan Publishers Ltd and Spotlight Verlag GmbH2015

BUSINESS SPOTLIGHT / Masters of the elements

## Masters of the elements

### Vocabulary record: Masters of the elements

verb	noun	adjective (+ opposite)	adverb (+ opposite)
pump			
	elements		
		innovative	
			increasingly

Vocabulary record

