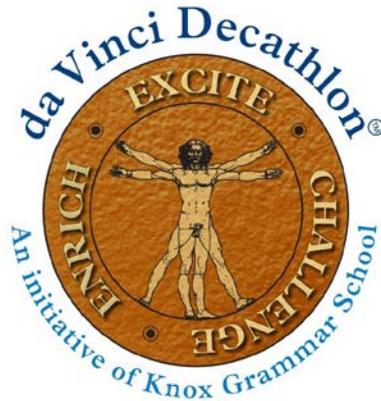




**KNOX**  
GRAMMAR  
SCHOOL

# STATE DA VINCI DECATHLON 2019

CELEBRATING THE ACADEMIC GIFTS OF STUDENTS  
IN YEARS 7 & 8.



## CARTOGRAPHY

TEAM NUMBER \_\_\_\_\_

1	2	3	4	Total
/10	/6	/7	/14	/37

# LANDSCAPES

## THE NILE RIVER - CONTRASTING LANDSCAPES

- The Nile is a river in Africa that flows into the Mediterranean Sea near Alexandria.
- It is the longest river on Earth (about 6,650 km), though other rivers carry more water. Some sources will site the Amazon River as being the longest, though the Nile is officially the longest. The Amazon carries a much greater volume of water.
- Both rivers have a massive influence on shaping the landscape on the riverbanks and the land beyond.



**The Season of the Inundation** was the first season in the ancient Egyptian calendar. This season is also known as '**the time of the floods**'. The Ancient Egyptians marked the beginning of their year by the rising of the Nile. The flooding has been an important natural cycle in Egypt since ancient times. It is celebrated by Egyptians as an annual holiday for two weeks starting August 15, known as Wafaa El-Nil.

Whilst the earliest Egyptians simply laboured those areas, which were inundated by the floods some 7000 years ago, they started to develop the basin irrigation method, which successfully supplied the Ancient Egyptian people and still to this day is vital for the modern Egyptian people.

I had the pleasure of spending 28 days on an Archaeological Tour, sailing down the Nile, from Cairo to



Lake Nasser. The contrasting Landscapes on the tour were my inspiration for this paper. The tour traced the highlights of the book by Amelia Edwards's book, *A Thousand Miles up the Nile* (1877). An amazing read by an incredible author and inspiring Egyptologist - she single handedly legitimised the study as a scienc. **Amelia Edwards** (1831 – 1892), was an English novelist, journalist, traveller and Egyptologist. Her most successful fictional literary works. Edwards' travels in Egypt made her aware of increasing threats to ancient monuments from tourism and modern development. She set out to hinder these through public awareness and scientific endeavour, becoming a tireless advocate for research and preservation of them.

Edwards wrote a vivid description of her Nile voyage entitled *A Thousand Miles up the Nile* (1877). Enhanced with her own illustrations, this travelogue was an immediate best-seller. In 1882, she co-founded the Egypt Exploration Fund. To advance the Fund's work, Edwards largely

abandoned other writing in favour of Egyptology. Edwards became joint Honorary Secretary of the Fund until her death.

Edwards bequeathed her collection of Egyptian antiquities and her library to University College London, together with a sum of £2,500 to found an Edwards Chair of Egyptology, which still stands to this day. The Nile has been the lifeline of civilization in Egypt since the Stone Age, with most of the population and all of the cities of Egypt resting along those parts of the Nile valley lying north of Aswan.

## QUESTION 1 (10 MARKS)

### WORLDS LONGEST RIVERS INFLUENCING LANDSCAPES

**Rivers** are a key factor in shaping the **Landscape** of many environments around the world. Listed on the table below are some of the greatest and well-known rivers of the world, indicating their World Ranking according to their length, name, length in kilometres, outflow and the countries that they pass through.

Your task is to fill in the blank spaces.

World Ranking of River (by length)	River	Length (km)	Outflow (where does the rivers water empty)	Countries in the drainage basin - Countries that the river flows through.
1.	Nile	6,650	Mediterranean	Ethiopia, Eritrea, Sudan, Uganda, Tanzania, Kenya, Rwanda, Burundi, Egypt, Democratic Republic of the Congo, South Sudan
2.		6,400	Atlantic Ocean	Brazil, Peru, Bolivia, Colombia, Ecuador, Venezuela, Guyana
3.	Yangtze	6,300		China
4.	Mississippi	6,275		United States, Canada
9.	Congo	4,700		Democratic Republic of the Congo, Central African Republic, Angola, Republic of the Congo, Tanzania, Cameroon, Zambia, Burundi, Rwanda
12.	Mekong	4,350		China, Myanmar, Laos, Thailand, Cambodia, Vietnam
16.	Murray–Darling	3,672	Southern Ocean	

<b>18.</b>	Volga	3,645	Caspian Sea	
<b>23.</b>	Yukon	3,185	Bering Sea	
<b>28.</b>	Rio Grande	3,057		United States, Mexico
<b>130.</b>	Rhine	1,233		Germany, Switzerland, Netherlands, France, Luxembourg, Austria, Belgium, Liechtenstein, Italy

(10 MARKS)

## QUESTION 2

(6 MARKS)

### THE CHANGING THE LANDSCAPES OF THE RIVER DELTA

The Nile Delta is pictured here (right) at night and the light is an indication of the human population concentrated in this unique landform. In ancient times, the Nile Delta was well known for its agricultural fertility.



By definition, a **river delta** is a landform that forms from deposition of sediment that is carried by a river as the flow leaves its mouth and enters slower-moving or still water.

With this information, answer the questions on the following table:

Name of Delta	Name the water body that it flows into.	Name one country that the river that feeds into this delta has passed through?
<p><b>Ganges-Brahmaputra Delta</b></p> 	(1 MARK)	(1 MARK)
<p><b>Danube Delta</b></p> 	(1 MARK)	(1 MARK)
<p><b>Niger Delta</b></p> 	(1 MARK)	(1 MARK)

## QUESTION 3

(7 MARKS)

### LANDLOCKED RIVER DELTA CHANGES THE LANDSCAPE

The Okavango Delta (or Okavango Grassland) in Botswana is a swampy inland delta. All the water reaching the delta is ultimately lost to evaporation, and does not flow into any sea or ocean. Each year, about 11 cubic kilometres of water spread over 6,000–15,000 km<sup>2</sup> area, depending on the rainfall for the season.



Republic of Botswana is a landlocked country in Southern Africa. It is topographically flat, with up to 70 percent of its territory being the Kalahari Desert. The Okavango Delta, one of the world's largest inland deltas, is in the northwest. Botswana has diverse areas of wildlife habitat. In addition to the delta and desert areas, there are grasslands and savannas, where blue wildebeest, antelopes, and other mammals and birds are found. Northern Botswana has one of the few remaining large populations of the endangered African wild dog. Chobe National Park, has the world's largest concentration of African elephants. The park covers about 11,000 km<sup>2</sup> and supports about 350 species of birds.

1. Botswana faces two major environmental problems: drought and desertification. What is meant by “desertification”?

---

---

---

---

---

---

(2 MARKS)

The Okavango Delta has been designated as a World Heritage site. This means it is a landmark or area which is selected by UNESCO as having some form of significance, and is legally protected by international treaties. The sites are judged important to the collective interests of humanity. Sites are demarcated by “UNESCO Protected Zones”.

The sites are intended for practical conservation for posterity, which otherwise would be subject to risk from human or animal trespassing, or threat from local administrative negligence.

2. What does UNESCO stand for?

(1 MARK)

---

3. Give two reasons why this site was selected as a World Heritage site? Explain this reason.

(2 MARKS)

---

---

---

---

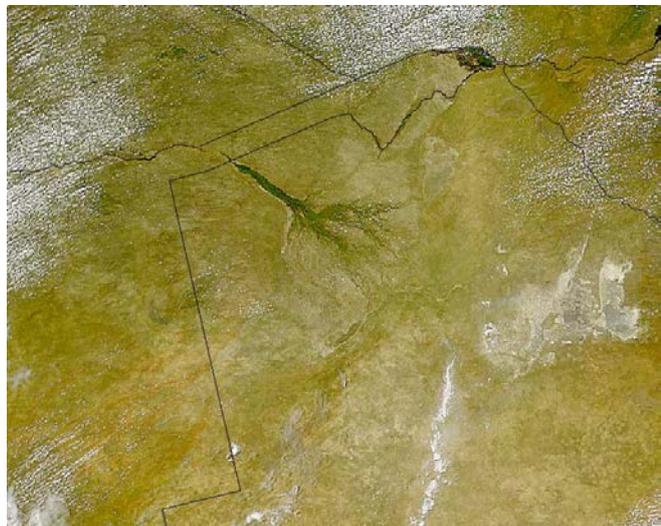
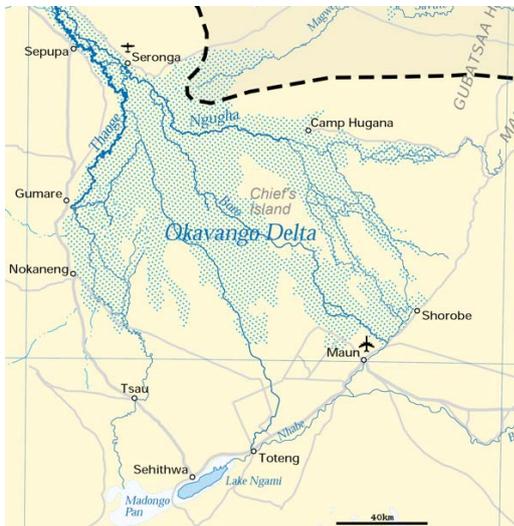
(2 MARKS)

---

---

---

---



## QUESTION 4

(14 MARKS)

### CONTROLLING THE NILE RIVER

Herodotus (c.484 BC - c. 425 BC), an ancient Greek historian, called the fertile land of Egypt “*the Nile’s gift*”. The flooding of the Nile is the result of the yearly monsoon between May and August causing enormous precipitations on the Ethiopian Highlands. During this short period, those rivers contribute up to ninety percent of the water of the Nile and most of the sedimentation carried by it, but after the rainy season, dwindle to minor rivers.

The Ancient Egyptian year was divided into the three seasons of *Akhet (Inundation)*, *Peret (Growth)*, and *Shemu (Harvest)*. These floods brought high water with natural nutrients and minerals that annually enriched the fertile soil along its floodplain and delta; this predictability had made the Nile valley ideal for farming since ancient times.

These facts were unknown to the ancient Egyptians who could only observe the rise and fall of the Nile waters during the Inundation. The flooding as such was foreseeable, though its exact dates and levels could only be forecast on a short-term basis by transmitting the gauge readings at Aswan (Upper Egypt) to the Middle, Lower and Delta regions of the kingdom. What was not foreseeable, of course, was the extent of flooding of the Inundation and its total discharge on Middle, Lower and Delta regions of the Nile Flood Plain.

### ANCIENT EGYPT AND THE INUNDATION.

1. Name one positive impact that the flooding of the Nile (inundation) had on the Ancient Egyptian agricultural activities and explain why.

---

---

---

---

(2 MARKS)

2. Name one negative impact that the flooding of the Nile (inundation) had on the Ancient Egyptian agricultural activities and explain why.

---

---

---

---

(2 MARKS)

3. Name one negative impact that the flooding of the Nile (inundation) had on the Ancient Egyptian people, other than agriculturally and explain why.

---

---

---

---

(2 MARKS)

### MODERN EGYPT CONTROLLING THE INUNDATION

Since ancient times, the people of the Nile have endeavoured to control the waters of the Nile River to aid them in the agricultural exploits. In 1902, the colonial powers at that time, the British, built the Aswan Dam (later to be known as the Aswan Low Dam) to try to control the waters. It had little impact, but was able to create a passage for vessels to sail upstream against the current, safely.

Then the Aswan High Dam, an embankment dam was built between 1960 and 1970, significantly eclipsed the previous Aswan Low Dam. With its ability to control the flooding, provide increased water storage for irrigation and generate hydroelectricity, was seen as pivotal to Egypt's planned industrialization. The High Dam has had a significant effect on the economy and culture of Egypt.



4. Name one immediate impact that the High Dam would have had on the agriculture of the Nile River plain and give an example.

---

---

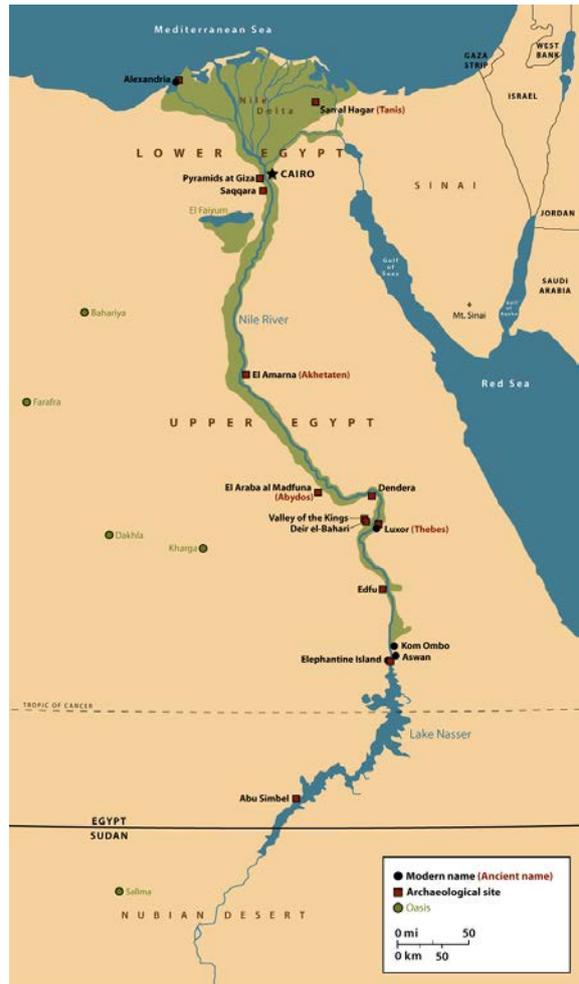
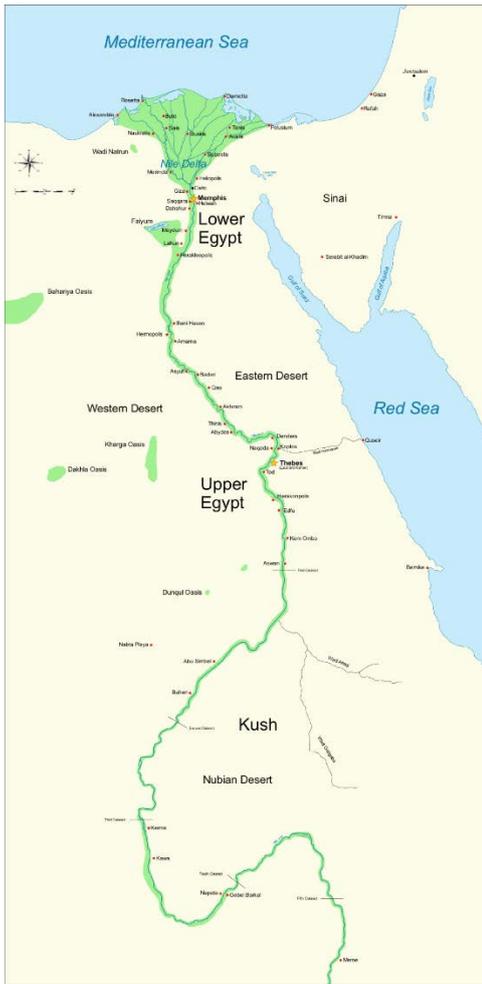
---

---

---

(2 MARKS)

With the High Dam's construction, Lake Nasser was created. See the difference between these two maps.



5. As a '*cartographer*', what must be considered when such forms of construction (such as the High Dam), need to be made? (Name 1 and explain your example for the full 2 marks.)

---

---

---

---

---

---

(2 MARKS)

The Nile Basin Initiative (NBI) is a partnership among the Nile Riparian states that “seeks to develop the river in a cooperative manner, share substantial socioeconomic benefits, and promote regional peace and security”. It was formally launched in February 1999 by the water ministers of 9 countries that share the river – Egypt, Sudan, Ethiopia, Uganda, Kenya, Tanzania, Burundi, Rwanda and the Democratic Republic of Congo with Eritrea as an observer.



The Grand Ethiopian Renaissance Dam has been under construction since 2011, and it is over due for completion. It was expected to be completed in 2017. In 2013, Egyptian politicians discussed sabotaging the project in a private meeting, which wasn't as private as they thought. Embarrassment apart, it was already no secret that Egypt wanted to stop the largest hydroelectric project in Africa.

6. What impact would reduced water flow of the Nile have, in the short term, on Egypt?

---

---

---

---

(2 MARKS)

7. What potential impact would reduced water flow of the Nile have, in the long term, on Egypt?

---

---

---

---

(2 MARKS)

**END OF PAPER.**