Coinage in Ancient Greece

A. There are more than 170 official national currencies currently in circulation around the world and while they may differ greatly in value, most show a high degree of commonality when it comes to their design. Typically, a coin or banknote will feature the effigy of a notable politician, monarch or other personality from the country of origin on one side and a recognisable state symbol (e.g. a building or an animal) on the reverse. This pattern, which has been around for more than 21 centuries, originated in ancient Greece.

B. Prior to the invention of legal tender, most transactions in the ancient world took the form of trading a product or service for another. As sea trade grew in the Mediterranean, however, the once-popular barter system became hard to maintain for two reasons: firstly, because it was tricky to calculate the value of each item or service in relation to another, and secondly, because carrying large goods (such as animals) on boats to do trade with neighbouring cities was difficult and inconvenient. Therefore, the need soon arose for a commonly recognised unit that would represent a set value-what is known today as a currency. As Aristotle explains in Politics, metal coins naturally became the most popular option due to the fact that they were easy to carry, and didn't run the risk of expiring. According to ancient Greek historian Herodotus, the first coins were invented in 620 BC in the town of Lydia, although some theorise that they actually originated in the city of Ionia. (Coins had already existed for nearly 400 years in China, unbeknownst to Europeans.)

C. Much like with every other form of ancient Greek art, the history of ancient Greek coins can be divided into three distinct chronological periods: the Archaic (600-480 BC), the Classic (480-330 BC) and the Hellenistic Period (330-1st century BC). As ancient Greece was not a united country like today, but rather comprised of many independent city-states known as poleis, each state produced its own coins. The island of Aegina was the first to mint silver coins, perhaps adopting the new system upon witnessing how successfully it had facilitated trade for the lonians. Aegina being the head of a confederation of seven states, it quickly influenced other city-states in the Mediterranean and the new method of trade soon became widespread. Up until approximately 510 BC, when Athens began producing its own coin, the Aegina coin – which featured a turtle on its surface was the most predominant in the region.

D. The tetradrachm, Athens's new coin bearing the picture of an owl on its obverse as a tribute to the city's protector, the goddess Athena, brought with it a shift in the world of coinage. Prior to the tetradrachm, Athenians had been using simple iron rods known as 'obols' for currency. As the average human hand could grasp about six obols, that number soon came to represent a 'drachma' (from the Greek verb 'dratto', which means 'to grasp')-so the new tetradrachm had the same value as 24 obols. With Athens continually growing in power, the tetradrachm soon replaced-the Aegina 'turtle' as the most preponderant coin in the region. It was around that time that an agreement akin to

the way the EU's euro currency functions also appeared, with different coins from all over the Mediterranean being made to the same standards as the Athenian coin (albeit with each city's own symbols on them) and being used interchangeably among the trading city-states.

E. Coinage soon spread beyond those city-states. Romans abandoned the bronze bars they'd been using in favour of coins around the year 300 BC, and Alexander the Great and his father King Philip of Macedonia began to produce massive quantities of coins to fund their military escapades around the same time. It was with the death of the latter, in 336 BC, that the Hellenistic Period began. Two things characterise the Hellenistic Period: the introduction of a "type" (the design that coins were stamped with) on the reverse of the coins, and mass production, which mostly took place in kingdoms beyond the Greek city-states, such as Egypt, Syria and the far east. Another new feature, which was heavily criticised by the Greeks, was the introduction of profiles of kings and other important living figures as stamps in lieu of the traditional symbols of animals and buildings. Athens, still a powerful city at the time, eschewed these designs and continued to produce its own tetradrachm coins, even introducing-a new-style coin characterised by broad, thin flans-a design which became popular across the Aegean and lasted until the spread of Roman rule over Greece.

F. It's not difficult to see why ancient Greek coins continue to fascinate coin collectors and historians today. They marked the beginning of a new era in business and introduced a model of trade in Europe that is still present nowadays; they greatly influenced the design of modern coinage, with symbols such as the owl (which can be seen on the Greek version of the euro today) and portraits of important personalities; and, since they were hand-made to high technical standards representative of ancient Greek perfectionism, many are even remarkable in their own right, as tiny metal works of art.

Questions 1-6

The Reading Passage has six sections A-F.

Choose the correct heading for each section from the list of headings below.

Write your answers in boxes 1-6 on your answer sheet.

List of Headings
i The beginning of the Archaic period
ii The Athenian obol replaces the turtle
iii How product exchange became insufficient
iv Roman and Macedonian coins

v The relevance of ancient Greek coins today

vi New cities introduce new design rules

vii A precursor of the modern euro

viii The difference between Ionian and Lydian coins

ix Modern coin designs and their origin

1 Section **A** .....

2 Section **B** .....

3 Section **C** .....

4 Section **D** .....

5 Section **E** .....

6 Section **F** .....

Questions 7-10

Answer the questions below with words taken from Reading Passage.

Use NO MORE THAN TO WORDS for each answer.

7 What were the ancient Greek city-states commonly known as?

8 Which type did the Aegina coin use?

9 What was the value of a drachma in ancient Athens?

10 What did the Romans use prior to the introduction of coins?

Questions 11-12

Choose the correct letter, A, B, C or D.

11 The Athenian Hellenistic-period tetradrachm coin

A replaced the owl type with the profile of a king.
B was a thin, wide metal disk.
C remained popular under Roman rule.

D was massively produced in Syria and Egypt.

12 Ancient Greek coins

A are still a method of trade in Europe nowadays.
B are remarkably different from modern coins.
C are a fine example of ancient Greek art.
D were a tribute to the goddess Athena, protector of Athens.

William Kamkwamba

In 2002, William Kamkwamba had to drop out of school, as his father, a maize and tobacco farmer, could no longer afford his school fees. But despite this setback, William was determined to get his education. He began visiting a local library that had just opened in his old primary school, where he discovered a tattered science book. With only a rudimentary grasp of English, he taught himself basic physics - mainly by studying photos and diagrams. Another book he found there featured windmills on the cover and inspired him to try and build his own.

He started by constructing a small model. Then, with the help of a cousin and friend, he spent many weeks searching scrap yards and found old tractor fans, shock absorbers, plastic pipe and bicycle parts, which he used to build the real thing.

For windmill blades, William cut some bath pipe in two lengthwise, then heated the pieces over hot coals to press the curled edges flat. To bore holes into the blades, he stuck a nail through half a corncob, heated the metal red and twisted it through the blades. It took three hours to repeatedly heat the nail and bore the holes. He attached the blades to a tractor fan using proper nuts and bolts and then to the back axle of a bicycle. Electricity was generated through the bicycle dynamo. When the wind blew the blades, the bike chain spun the bike wheel, which charged the dynamo and sent a current through wire to his house.

What he had built was a crude machine that produced 12 volts and powered four lights. When it was all done, the windmill's wingspan measured more than eight feet and sat on top of a rickety tower 15 feet tall that swayed violently in strong gales. He eventually replaced the tower with a sturdier one that stands 39 feet, and built a second machine that watered a family garden.

The windmill brought William Kamkwamba instant local fame, but despite his accomplishment, he was still unable to return to school. However, news of his *magetsi a mphepo* - electric wind - spread beyond Malawi, and eventually things began to change. An education official, who had heard news of the windmill, came to visit his village and was amazed to learn that William had been out of school for five years. He arranged for him to

attend secondary school at the government's expense and brought journalists to the farm to see the windmill. Then a story published in the *Malawi Daily Mail* caught the attention of bloggers, which in turn caught the attention of organisers for the Technology Entertainment and Design conference.

In 2007, William spoke at the TED Global conference in Tanzania and got a standing ovation. Businessmen stepped forward with offers to fund his education and projects, and with money donated by them, he was able to put his cousin and several friends back into school and pay for some medical needs of his family. With the donation, he also drilled a borehole for a well and water pump in his village and installed drip irrigation in his father's fields.

The water pump has allowed his family to expand its crops. They have abandoned tobacco and now grow maize, beans, soybeans, potatoes and peanuts. The windmills have also brought big lifestyle and health changes to the other villagers. 'The village has changed a lot,' William says. 'Now, the time that they would have spent going to fetch water, they are using for doing other things. And also the water they are drinking is clean water, so there is less disease.' The villagers have also stopped using kerosene and can use the money previously spent on fuel to buy other things.

William Kamkwamba's example has inspired other children in the village to pursue science. William says they now see that if they put their mind to something, they can achieve it. 'It has changed the way people think,' he says.

Questions 13-18

Complete the table below.

Choose NO MORE THAN TWO WORDS from the passage for each answer.

Building the Windmill

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William learned some (13)..... from a library book.

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First, he built a (14)..... of the windmill.

↓

Then he collected materials from (15)..... with a relative.

↓

He made the windmill blades from pieces of (16).....

↓

He fixed the blades to a (17)..... and then to part of a bicycle.

↓

He raised the (18) ……. on a tower.