

## READING COMPREHENSION

### 1. Inventions

*For over 30 years, Barry Fox has looked at the world's strange and wonderful patent applications each week, digging out the most exciting and even terrifying new ideas.*

#### **Live rail networking**

Want to watch live TV on the Eurostar? Or surf the web at broadband speed aboard an underground train? The answer, says Anthony Whelan of California, US, is to adapt the electrified rail to deliver data, as well as power, to moving carriages.

Data would be transmitted to a train on a high frequency carrier signal riding on top of the main current - a technique is already used to deliver data to homes over mains power lines.

A filter aboard the train would separate the data signal from the lower frequency power one, and send it to passenger carriages using a wireless network or through sockets in the armrests.

Unlike satellite systems, the technology would work under underground and in tunnels. It should also be subject to less disruption than cellphone communications, the patent suggests.

Repeaters could boost the data signal every kilometre, to help it withstand the interference, and internet error-correction protocols could be used to keep the signal in check.

#### **Used tyre printer ink**

Printer ink can cost as much as vintage champagne, so finding a cheap way to make it would be a godsend. Now three inventors from Derbyshire, UK, think they have just the solution: extract the carbon from unwanted tyres to generate a cheap and plentiful supply.

On the one hand, the black carbon powder currently used in regular ink is refined from pure oil and the liquid used in cartridges is boiled down from a volume six times larger. On the other hand, millions of tyres are dumped every year.

Baking a tyre at 800°C should break it into a mucky mix of fused silica, steel wire, sulphur, and lumps of precious carbon char, the inventors say. Shaking the mixture through a magnetic sieve ought to get rid of lumps and metal, and then re-baking the smaller particles should produce semi-pure carbon powder.

Flushing this through with hydrochloric acid will suck out any remaining metal and sulphur, and caustic alkali should remove any silicon bits, to produce usable carbon powder.

As an added bonus, the inventors claim the whole process will release far less carbon dioxide into the atmosphere than the traditional refinement process.

**Task 1**

Read the text and complete the table with your notes based on the text with no more than 3 words, according to the example (0).

	NOTES	MARKING BOX	
		1.	2.
Elements of data transfer in 'Live Rail Networking'	0. <i>main current</i>	✓	✓
	1.		
	2.		
	3.		
	4.		
Process of producing printer ink from old tyres	5.		
	6.		
	7.		
	8.		
	9.		
<b>SCORE</b>			

**Task 2**

Read the text again and use it to decide if the statements are true (T) or false (F). Write your answers in the table below according to the example (0). *Please note that if all your answers are marked as true or as false, your answers will be disqualified.*

STATEMENTS	TRUE OR FALSE	MARKING BOX	
		1.	2.
0. <i>The same way as electricity, data can be carried to trains on the live rails.</i>	<b>T</b>	✓	✓
10. One advantage of this system is that it can be used even in tunnels and underground.			
11. There is no interference to exclude in this system.			
12. To make ink from old tyres is much cheaper than the production method used now.			
13. There is a disadvantage to the new method of producing ink, namely, high carbon-dioxide emissions.			
14. Only mechanical processes are used in the process of gaining clean carbon powder for ink.			
15. Metal particles are extracted with a magnetic sieve.			
<b>SCORE</b>			

## WRITING SKILLS

### Task 1

Study the table and use the provided information to complete the sentences using 50-80 words, according to the example (0).

**Top 10 Construction Markets in 2009 and 2020**

Country	Market Size in 2009 (USD bn)	World Market Share in 2009	Predicted Top 10 in 2020
US	1,132	17.4%	China
China	1,034	13.7%	US
Japan	592	7.9%	India
Germany	303	4%	Japan
Spain	292	3.9%	South Korea
France	270	3.6%	Germany
Italy	262	3.5%	Spain
S. Korea	248	3.3%	Russia
India	247	3.3%	UK
UK	243	3.2%	Canada

Source: Global Construction 2020 Report

0. **The table shows the** top 10 construction markets in 2009 and the prediction for 2020.
1. **The market size is** .....
2. **There are two countries which will drop out** .....
3. **Russia and Canada are**.....
4. **All the other countries will change** .....
5. **In 2009, the US had the biggest** .....
6. **By 2020, the US and China will** .....
7. **By 2020, Germany, Japan and Spain** .....
8. **On the other hand, China, South Korea and the UK will** .....
9. **The biggest improvement can be expected from India, who** .....
10. **South Korea will also** .....

fordítás

## **Whirlpool Front Loading Washing Machine Manual**

Proper installation of your appliance prior to use is your responsibility. Be sure to read and follow the installation instructions that came with your appliance.

Do not allow children to play on or in the appliance. Close supervision of children is necessary when the appliance is used near children.

Do not reach into the appliance if the tub is moving. Do not install or store this appliance where it will be exposed to the weather.

Do not repair or replace any part of the appliance or attempt any servicing unless specifically recommended in the user maintenance instructions.

Do not use replacement parts that have not been recommended by the manufacturer (e.g. parts made at home using a 3D printer).

## READING COMPREHENSION

### 1. Inventions

#### Task 1

Elements of data transfer in 'Live Rail Networking'	<b>0. main current</b>
	1. filter
	2. wireless network / socket
	3. repeaters
Process of producing printer ink from old tyres	4. internet error-correction protocols
	5. baking it at 800°C
	6. shaking it through a magnetic sieve
	7. re-baking
	8. flushing it through hydrochloric acid
	9. using caustic alkali

#### Task 2

10. One advantage of this system is that it can be used even in tunnels and underground.	<b>T</b>
11. There is no interference to exclude in this system.	<b>F</b>
12. To make ink from old tyres is much cheaper than the production method used now.	<b>T</b>
13. There is a disadvantage to the new method of producing ink, namely, high carbon-dioxide emissions.	<b>F</b>
14. Only mechanical processes are used in the process of gaining clean carbon powder for ink.	<b>F</b>
15. Metal particles are extracted with a magnetic sieve.	<b>T</b>

(Egy lehetséges mintamegoldás)

1. The market size is **in Billions of US Dollars**.
2. There are two countries which will drop out **of the Top 10 by 2020**.
3. Russia and Canada are **going/predicted to be among the top 10 in 2020**.
4. All the other countries will change **their positions**.
5. In 2009, the US had the biggest **Market Share with 17.4%**.
6. By 2020, the US and China will **swap/exchange places**.
7. By 2020, Germany, Japan and Spain ...**will have lower percentages of shares**.
8. On the other hand, China, South Korea and the UK **will get stronger/ increase their Market Size**.
9. The biggest improvement can be expected from India, who **may jump from 9<sup>th</sup> to 3<sup>rd</sup> place**.
10. South Korea will also **have a higher Market Share**.

## **Mintamegoldás**

### **Whirlpool előltöltős mosógép kézikönyve**

A készülék első használat előtti beüzemelése a vásárló felelőssége. Feltétlenül olvassa el és kövesse a készülékhez kapott utasításokat.

Ne engedje, hogy gyermekek játsszanak a mosógép tetején vagy a gépben.

A gyermekek szoros felügyelete szükséges, ha a készüléket gyermekek közelében használják.

Ne nyúljon a mosógépbe, amikor a dob mozog. Ne használja vagy tárolja a készüléket olyan helyen, ahol ki van téve az időjárásnak.

Ne javítsa vagy cserélje a mosógép alkatrészeit, ne kísérelje megszerelni, csak abban az esetben, ha az a felhasználói karbantartási utasításokban kifejezetten javasolt.

Csak olyan cserealkatrészeket használjon, amelyeket a gyártó ajánlott (pl. ne használjon 3D nyomtatóval otthon legyártott alkatrészeket).