

Scientists are continually trying to count ever larger amounts and measure ever smaller quantities. And as they push the boundaries of counting further outwards and add still more zeroes to the end, they need names for their new numbers.

The standard approach to creating these is to add a prefix to an existing measurement word. So a kilometre is 1000 metres, and a nanosecond is a billionth of a second. The latest additions to the official list of prefixes were made in 1991. They were zetta-, which denotes a number followed by 21 noughts, and yotta-, 24 noughts.

You'd have thought those would be big enough for anyone, but now some scientists are saying they'd like a prefix for a number followed by 27 noughts – that's a thousand trillion trillion – and a student from the University of California has started a petition on Facebook to get hella- officially accepted for the job.

What are his chances of success? Not great. The people who adjudicate on these things like their prefixes to have a classical Latin or Greek origin. Hella- could hardly be less classical.

It's American students' slang for 'extremely'. So you might say 'It's hella cold today'. It probably comes from the phrase 'hell of a', referring to an extraordinary example of something.

But it's certainly expressive, and if the idea of a hellametre or a hellagram appeals to you, get on that petition and sign.

*Last week's serious accident at an aluminium plant in Hungary could lead to tighter regulation of waste dumps across Europe. Eight people died and large areas of land were polluted by waste which escaped in the incident. From Budapest, Nick Thorpe reports:*

When the red **sludge reservoir** burst near Ajka in western Hungary, one of the first comments from the company was that this material is **not classified** as 'hazardous' by the European Union. "That is strictly true", Joe Hennon, the EU spokesman on the environment told the BBC, insofar as the sludge is not on the list of **highly toxic** materials in the EU **hazardous waste directive**. But it is included in another directive, on pollution prevention and control, under which the plant received its permission to operate in 2006.

The question of **liability** for accidents is currently **under review** by the European Commission. In the Hungarian case, the company can be held liable for damage to the environment, but not for harm to people. And if an accident **on the scale** of the massive oil spill in the Gulf of Mexico were to happen in **European waters**, the company would not be held responsible for some of the damage, as oil drilling is not mentioned in the Environmental Liability Directive.

The Hungarian government says it intends to call for a **tightening of legislation**, at EU level, when it takes over the presidency in January.

Nick Thorpe, BBC News, Budapest

## Vocabulary and definitions

<b>sludge</b>	thick muddy waste product
<b>reservoir</b>	tank or storage facility, used to hold large quantities of liquid
<b>not classified</b>	not categorised or defined
<b>highly toxic</b>	poisonous or harmful to human life
<b>hazardous waste directive</b>	official instructions for managing harmful materials
<b>liability</b>	legal responsibility
<b>under review</b>	being evaluated or reassessed
<b>on the scale of</b>	as large or significant as
<b>European waters</b>	lakes, rivers, seas and oceans in Europe
<b>tightening of legislation</b>	increasing the strictness of rules and regulations

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## BBC Learning English 6 Minute English

### *Watt's workshop*

NB: This is not a word for word transcript

**BBC**  
**LEARNING**  
**ENGLISH**

**Alice:** Hello, I'm Alice.

**Stephen:** And I'm Stephen.

**Alice:** And this is 6 Minute English! This week we're talking about an **inventor's workshop** which has been reassembled after almost 200 years.

**Stephen:** Reassembled – reconstructed or rebuilt.

**Alice:** This is the workshop of James Watt, an inventor born in Scotland in 1736. He's often **credited** with inventing the steam engine – though in actual fact, he improved on one which had already been developed. He's seen as a key figure in the Industrial Revolution. But anyway Stephen, before we find out more I've got a question for you.

**Stephen:** Ok – I'm feeling clever today!

**Alice:** Oh, well, in that case here's a difficult one. Can you put these four inventions in **chronological order** – that's the oldest one first? Ready?

**Stephen:** Ok.

**Alice:** The hot air balloon, Morse code, the vacuum cleaner and the typewriter.

**Stephen:** That's hard. I'm going to have to think about that and get back to you!

**Alice:** Ok, good. So, let's talk about today's topic. Curators at the Science Museum in London have reassembled the workshop of 18th century inventor James Watt, so people can see what it was like. Here's the BBC's science correspondent, Tom Fielden:

#### **Insert 1: Tom Fielden**

**When Watt died in 1819, this workshop was locked up and its contents left pretty much undisturbed until the 1920s when it was more or less picked up lock, stock and barrel by the Science Museum and put into storage. It's been a long wait, but the contents, a regular cornucopia of gadgets, tools, contraptions, you name it, have all been painstakingly reassembled here in the main hall of the Science Museum. I think, really, it's its spiritual home if nowhere else.**

**Alice:** Watt's workshop was locked up after his death in 1819 but curators from the Science Museum in London collected all the things they found there, lock, stock and barrel.

**Stephen:** Lock, stock and barrel – those are the three parts of an old-fashioned gun. It's a term that's used in English to mean everything. They took everything in the workshop and put it in storage.

**Alice:** Tom Fielden says Watt's workshop was a relative **cornucopia** of gadgets, tools and contraptions.

**Stephen:** A relative cornucopia – a cornucopia in classical mythology is a horn full of food and drink. But in modern English it's often used to mean a collection of wonderful things.

**Alice:** In this case, a cornucopia of gadgets, tools and scientific contraptions. Tom Fielden says that Watt's workshop has found its spiritual home at London's Science Museum.

**Stephen:** Its spiritual home – a place where it feels very comfortable.

**Alice:** The Curator of Mechanical Engineering at the Science Museum, Ben Russell, says the workshop is full of inventions and interesting objects – bits of machinery, engines, sculptures and musical instruments. He says it is a **treasure trove**.

**Stephen:** A treasure trove – full of wonderful, valuable things.

#### **Insert 2: Ben Russell**

**It's an absolutely astonishing... it's a treasure trove, really. We actually counted 8,430 objects, and it's a complete physical record of Watt's entire working life and interests, going back to the 1750s. So it's unparalleled anywhere. But really what the workshop does, it shows the engine, and there are some fragments about the engine, but it shows a lot of his other projects as well, from chemistry to pottery, instrument making, even musical instrument making. So it shows how diverse a bloke he was.**

**Alice:** Curator Ben Russell says the workshop is unparalleled anywhere. It's unique. It shows that Watt was interested in lots of different things – not only steam engines but other inventions. The workshop shows what a diverse bloke he was.

**Stephen:** A diverse bloke indeed – that's a conversational way of saying he was a well-rounded man. He had lots of interests.

**Alice:** Here's Andrew Nahum, the Curator of Innovation Curator at London's Science Museum:

### Insert 3: Andrew Nahum

**He didn't just do steam, as Ben said, he was a chemist, he was a potter, he built bridges and harbours and canals. He was, if you like, a one man innovation centre.**

**Alice:** Andrew Nahum says James Watt didn't just 'do steam'.

**Stephen:** He wasn't interested in just one thing - steam - but lots of other things.

**Alice:** He was a chemist, a potter and he built bridges, harbours and canals. Andrew Nahum uses a nice phrase to describe him - he was a one man innovation centre.

**Stephen:** A one man innovation centre – a man full of ideas and inventions.

**Alice:** And the improvements he made to the steam engine led the way to developing sophisticated machinery. OK, Stephen, have you had a chance to think about my invention question?

**Stephen :** OK, this is very hard, so I'm going to try: hot air balloon, typewriter, Morse code and then vacuum cleaner.

**Alice:** Stephen, you're brilliant! *(Alice and Stephen laugh)* Hot air balloon, developed in the 1780s, typewriter, 1830, Morse code, 1832 and the vacuum cleaner in 1860. Though the one on 1860 wasn't electronic – that came a bit later. So, you've done so well – will you read the words and phrases we've had today?

**Stephen:** Sure:  
inventor

workshop

credited

chronological order

cornucopia

treasure trove

**Alice:** Thanks very much, Stephen.

**Stephen:** You're welcome.

**Alice:** Well, that's all we have time for today, and we'll have more 6 Minute English next time.

**Both:** Bye!

## Vocabulary and definitions

<b>inventor</b>	person who makes items which have not been made before
<b>workshop</b>	room or area where things are built or designed
<b>credited</b>	given recognition, or believed to be responsible for
<b>chronological order</b>	the order in which things happened
<b>cornucopia</b>	large, varied and magnificent collection
<b>treasure trove</b>	a collection of wonderful, valuable objects

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BBC Learning English

Words in the News

6<sup>th</sup> April 2011

*Japanese disasters hit UK car production*

**BBC**  
LEARNING  
ENGLISH

*The Japanese car maker, Honda, says it plans to reduce the number of cars made at one of its UK factories. This is due to a parts shortage following the recent earthquake and tsunami in Japan. The 3,000 workers at the plant will remain on full pay. Mark Gregory reports.*

Honda says it's cutting **production** at its Swindon plant, in southern England, by 50% from next week, as it **grapples with** shortages of **key components** from Japan.

**Wide swathes** of Japanese industry are working at well below full capacity due to power shortages, following the nuclear accident at Fukushima. The earthquake and tsunami **devastated** a region that's home to some key parts suppliers to the motor and electronics industries. The effect is being felt in **the supply chains** of many companies around the world, not just Japanese ones, that **rely on** Japanese made components.

The problem's been **exacerbated** by the **prevalence of** so-called 'just-in-time' production systems, where manufacturers don't keep large stockpiles of parts on-site. Instead, they rely on timely deliveries made just before the parts are needed, more efficient when things are going well, but **prone to** disruption if the parts don't arrive on time.

Mark Gregory, BBC News

## Vocabulary and definitions

<b>production</b>	here, the number of cars made
<b>grapples with</b>	struggles to deal with
<b>key components</b>	crucial or important parts
<b>wide swathes</b>	here, large parts
<b>devastated</b>	wrecked or ravaged
<b>the supply chains</b>	the systems used to get parts or materials for production
<b>rely on</b>	depend on
<b>exacerbated</b>	made worse
<b>prevalence of</b>	common use or regular occurrence of
<b>prone to</b>	likely to suffer from

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