Skills for Life

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Why Stem?

It’s ok to be bad at maths?

Is it?

Numbers matter

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Numbers are an integral part of everyday life

We are surrounded by them daily

- **$65bn amount by which Bernard Madoff defrauded 9000 investors**
- **110C temperature of the sauna in which contestants in the World Sauna Championships must sit for as long as possible**
- **70.1% fall in Japanese exports in the first quarter of 2009**
- **(Times 29/06/09)**

And yet…….

It’s ok to say you’re bad at maths??????????

How do we overcome this culture?

Why must we do so?

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The world is changing

- By **2020** there will be **5 Million fewer** low skilled jobs in Britain than there are today
- **40%** of all jobs in **2020** will require a **graduate level** qualification
- The **top 10** jobs that will be in demand in **2020** did not exist in **2004**
- We are **currently** preparing students for jobs that **don't** yet exist
- The biggest factor eliminating **old jobs** is **technology**
- It is estimated that 1 **week** of The Times newspaper contains **more information** than a person was likely to come across in a **lifetime** in the 18th Century

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Meanwhile

- In the **new global** economies
  - Skills are **rising**
  - Aspirations are **rising**
  - Competitiveness is **rising**
- Today **200** of the worlds **biggest 500** companies have their **computer** operations based in **India**
- With **54%** of India's population under 25 that means **555 millions** "Zippies" (tech-savvy, upwardly mobile, 15 – 25 year olds)
- China's **high tech** exports grew from **$10bn** in **1996** to **$200bn** by **2005**
  …and their **5** year plan is to move from a "**Made in China**" to a "**Designed in China**" economy
- China's **post graduate** population will **increase x4** by **2020**

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Where does Britain stand today?

- **Half** of our workforce today is not qualified beyond **level 2**
- **1 in 5** adults **lacks the literacy** to look up a plumber in the **Yellow Pages**
- Almost **10%** of **16-18** year olds are **Not in Education, Employment or Training** (NEET)
- **1.8million** children live in **workless** households
- English 14 year olds are **top in Europe for science** but behind Singapore, Taiwan, Japan & Korea are all **way ahead**.
- Over **70%** of post graduate students studying **STEM** in the UK are from **overseas**
- **60%** of 19 year olds with parents from **professional** backgrounds study for a **degree**
- Fewer than **20%** from **lower** socio-economic backgrounds do so

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So where is the opportunity for Britain of the future?

- We have the **largest creative** sector in the **EU**
- We file more **trademarks** per capita than any other **G8** country
- We have **4** of the world's **top 10** universities
- **New** manufacturing is on the rise and will be looking for **324,000** more **scientists and engineers** by **2014** – that in **5 years** time
- **Maths A-Level** entries are up **15%** since **2007**
- **Apprenticeships** have **doubled** in 10 years growing to **40,000** by **2020**
- Many of today's graduate **courses did not** exist **10** years ago
- **Running** a business is the **top career** choice for **62%** of young people
- **Talent, skill** and **creativity** were one key lever for **prosperity –**
  They are now **THE** key lever

Some Cs

- **Challenge**
- **Capacity building**
- **Capability**
- **Culture**
- **Commitment**
- **Collaboration**