



# The healthy generation

LifeLab: educating young people for lifelong health

# Educational intervention based on research evidence:



- **Education:**

Pupils need to understand the science behind health issues to make informed judgements about their health

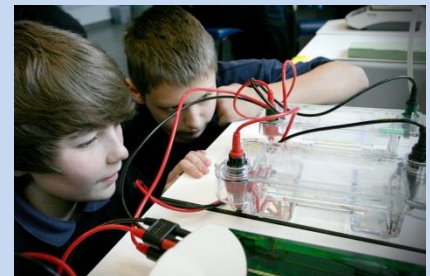


- **Medical:**

A healthy  
lifestyle in  
early life

=

Better health in  
later life and for  
future  
generations



- **Health issues are  
socioscientific issues**

- **Health issues are socioscientific issues**
- **Children need to understand the underpinning science to understand the issues and make informed judgements**

# Health in the school curriculum



**Most health education exists within**

- **PSHE (Personal, Social, Health & Economic Education)**
- **PE**
- **Science**

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# New Science Curriculum KS4 Programme of Study:



## The development of scientific thinking:

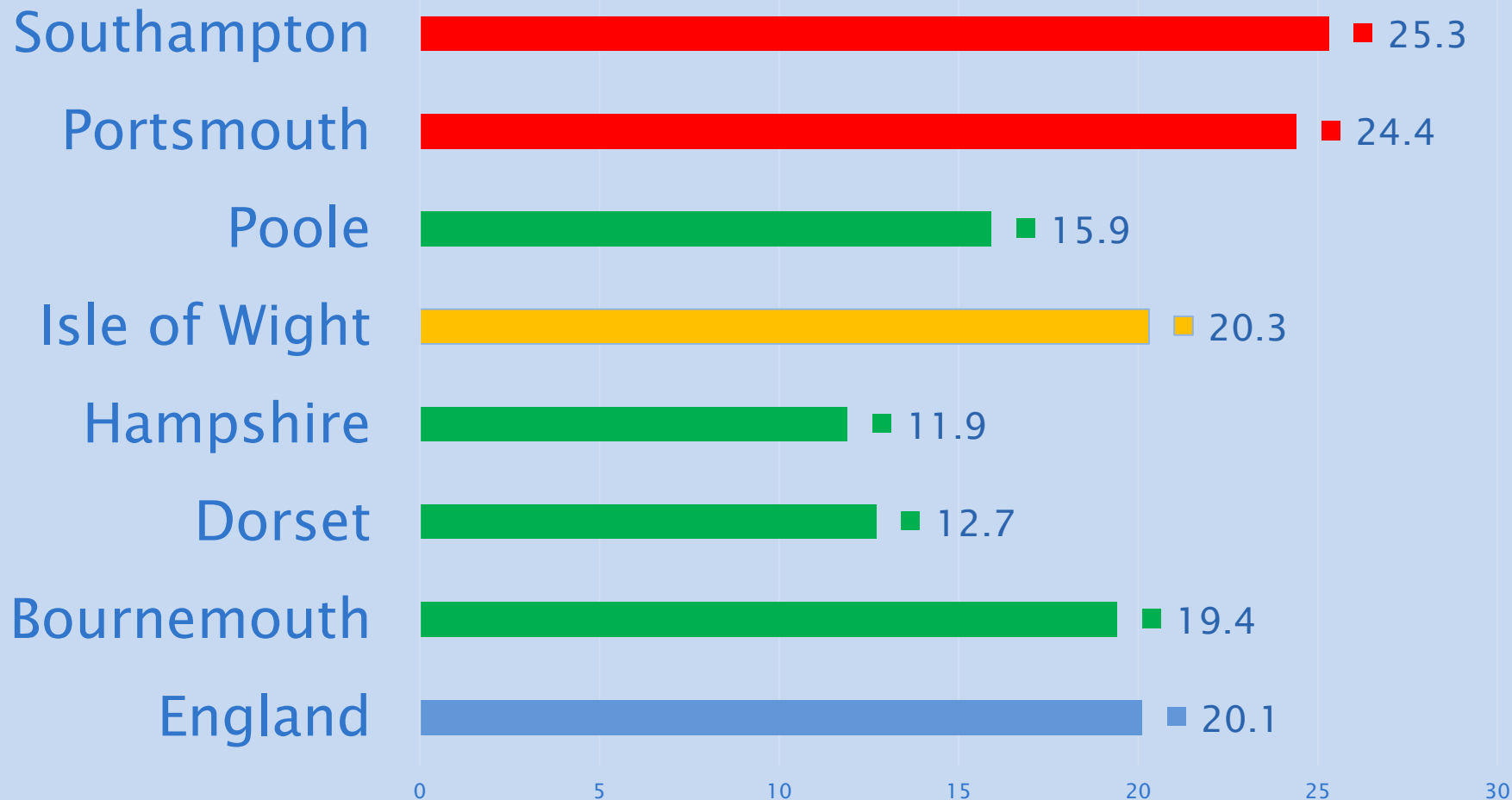
“the role of science in understanding the causes of and solutions for some of the challenges facing society, such as...health issues”

## 2014 GCSE subject content:

“Health and disease

- describe the relationship between health and disease
- describe different types of diseases (including communicable and non-communicable diseases)
- describe the interactions between different types of disease”

# % Children living in poverty (HM Revenue and Customs - Child poverty statistics, 2011)





Source: Public Health England: August 2014



- The health of people in Southampton is generally worse than the England average
- Deprivation in Southampton is higher than average and about 25.3% (10,600) children live in poverty
- The rate of alcohol-specific hospital stays among those under 18 is worse than the average for England
- Levels of teenage pregnancy and smoking are worse than the England average (Smoking in pregnancy is over twice as common)
- In Year 6, 20.3% (391) of children are classified as obese



# Me, My Health & My Children's Health

- LifeLab developed as a **collaboration** by
  - ❖ University of Southampton (Education and Medicine)
  - ❖ NIHR Nutrition BRC
  - ❖ Maths & Science Learning Centre South East
  - ❖ MRC Lifecourse Epidemiology Unit
- Located at Southampton General Hospital, comprising of a **classroom**, **seminar area** and a **laboratory** for hands-on experiments.
- There is the potential for **~5000 student visits per year**
- Programmes are tailored for students of **all abilities**, initially focusing on 11-14 year olds.

# LifeLab aims to provide school students with opportunities to:

- Learn how they can improve their health and the health of their future children through increased health & science literacy.
- Become enthusiastic about science, and consider further study and careers in scientific disciplines.





### THORNEND SCHOOL

Visual Learning Environment

**REVISION**

We found out that, to compare the effect of the 'fast' and 'slow' food groups, we had to look at the 'fast' food group to see how it affects the body. We found out that the 'fast' food group is not good for you. We found out that the 'fast' food group is not good for you. We found out that the 'fast' food group is not good for you.

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### Comparing Heart Rates

**Cantell Primary School**

**Kelly, Toni, Carlyne, Lucy and Paloma**

**Zak Cantell School Adam**

**Introduction**

In this experiment we will be finding out how different speeds affect different people's heart rate. This experiment will have 4 testing sites. The tests will be on running, jogging, running and skipping. Each test will be recorded for 2 minutes. These tests will be recorded 3 times to then find the average of heart beats per minute.

**Results**

A graph to show the average heart rates of different people when doing different exercises

Exercise	Person	Heart Rate (b/min)
Running	Kelly	140
	Toni	145
	Carlyne	150
	Lucy	155
Jogging	Kelly	130
	Toni	135
	Carlyne	140
	Lucy	145
Running and skipping	Kelly	150
	Toni	155
	Carlyne	160
	Lucy	165

**Conclusion**

The graph shows that as the speed of each activity increases so does the heart rate. This is because you need more blood pumped around your body so we can record our health of each participant in the experiment. Also with each person we can record their heart rate.

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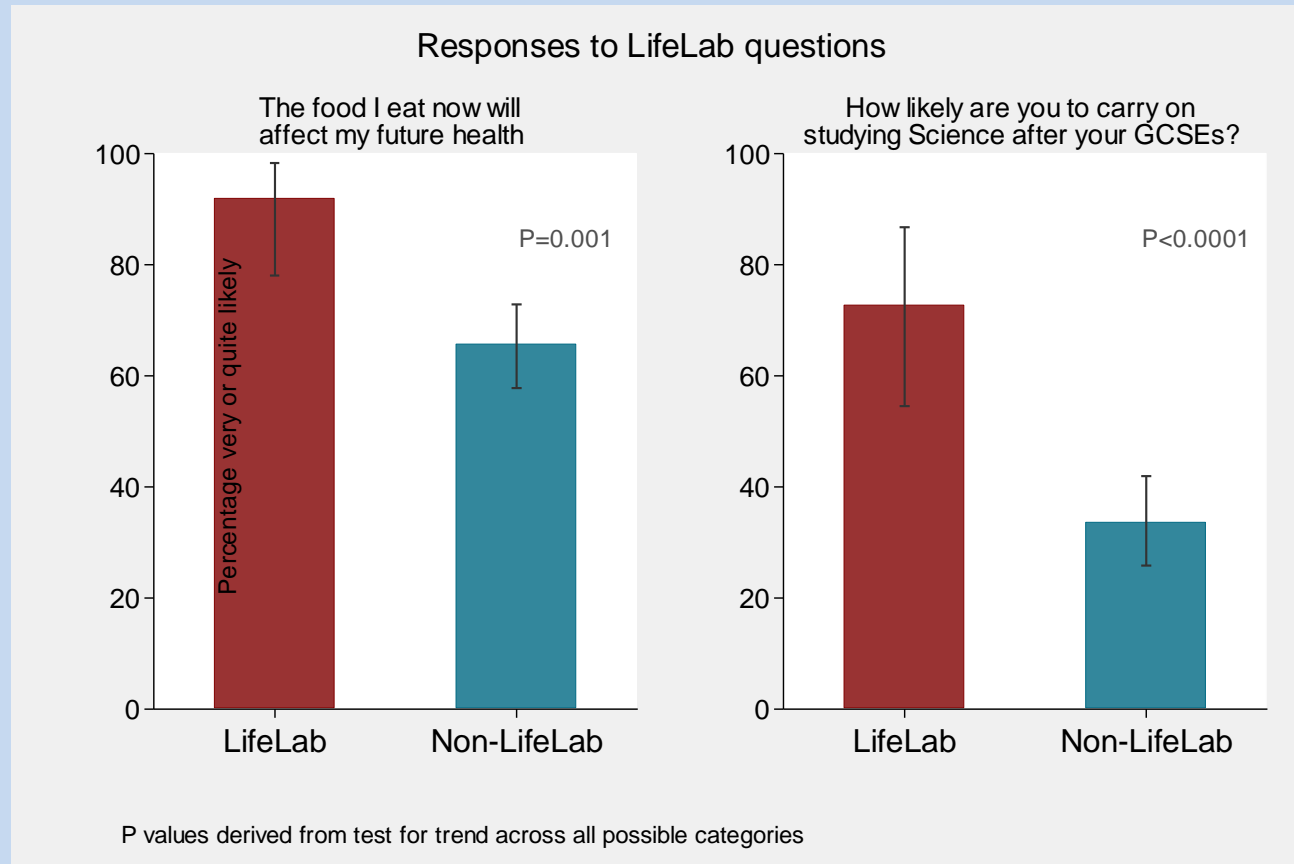
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# A lasting impression



Our pilot studies have demonstrated important statistical changes in the attitudes of children six months after experiencing LifeLab.



Grace, M., et al.,  
(2012) Health  
Education,  
112(6), 543-559

“If I want to have a long healthy life I need to be more careful with my body and need to look after it more”

I think that the most important thing I had learnt was that I need to commit to keeping healthy because otherwise when I'm older it can really effect my health



“I won't eat as many unhealthy foods because I don't want to have heart disease.”

“When I went home and told my mum about the LifeLab programme she suggested that I start taking my German Shepherd out for a walk every day. So that's the change I've done”

“How unhealthy my lifestyle actually is and the small changes that need to be made just to make sure I'm at less off a risk.”

***78% said yes to the question: “has the learning today had an influence on how you will manage your own health”***

Name:

Class:



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# A Ple My H



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Southampton | Unive

Make it **measurable**.



How im  
for you?

Not very impor



Circle a number

How co  
you can

Not very confid



Circle a numb

What do you  
want to change?  
Be **specific**.

What will you **do**  
to start making  
this change?

How successful  
was your change?

Make it  
**measurable**:  
When, how often,  
how many, how long?

How will you know  
when your change  
has been  
successful?

How **important**  
is this change for  
you?

How long do you  
need?

How **confident**  
are you that you  
can do this?

Who will support  
you?

What might **stop**  
you making this  
change?

How could you  
get over these  
problems?



# Impact of LifeLab



*“It was important that this was done outside of school, I don’t think it would have had the same wow factor if they did the same activity in the classrooms they always do science in!”*

Teacher, Southampton Secondary School

*“A fantastic day that inspires people to live healthier lives”*

Teacher, Southampton Secondary School

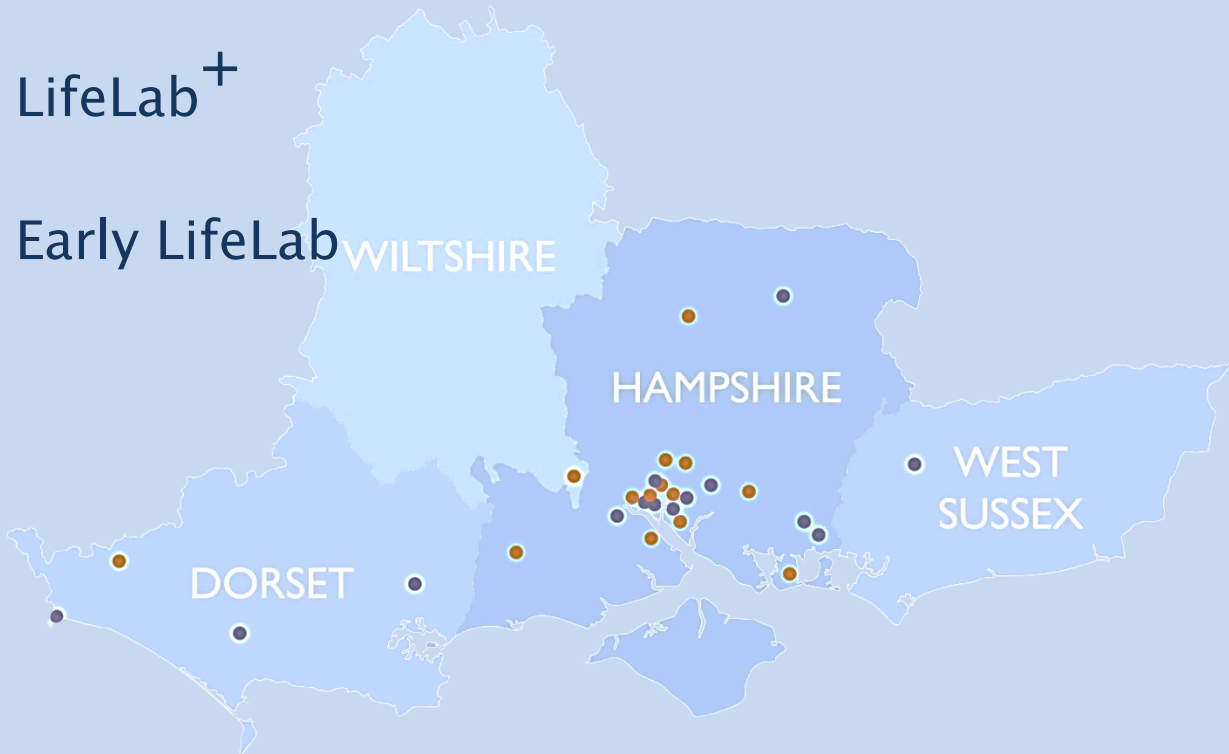
*“A particularly successful workshop, ‘LifeLab Southampton’, is based at the local hospital and is making an important contribution to students’ understanding of the need to adopt healthy lifestyles.”*

OFSTED 2009



# Future for LifeLab:

- To date, over 2000 school students have attended
  - Primarily year 9, but also 11-18 yrs
- Randomised Control Trial (RCT)
- LifeLab<sup>+</sup>
- Early LifeLab



# What Happens at LifeLab

