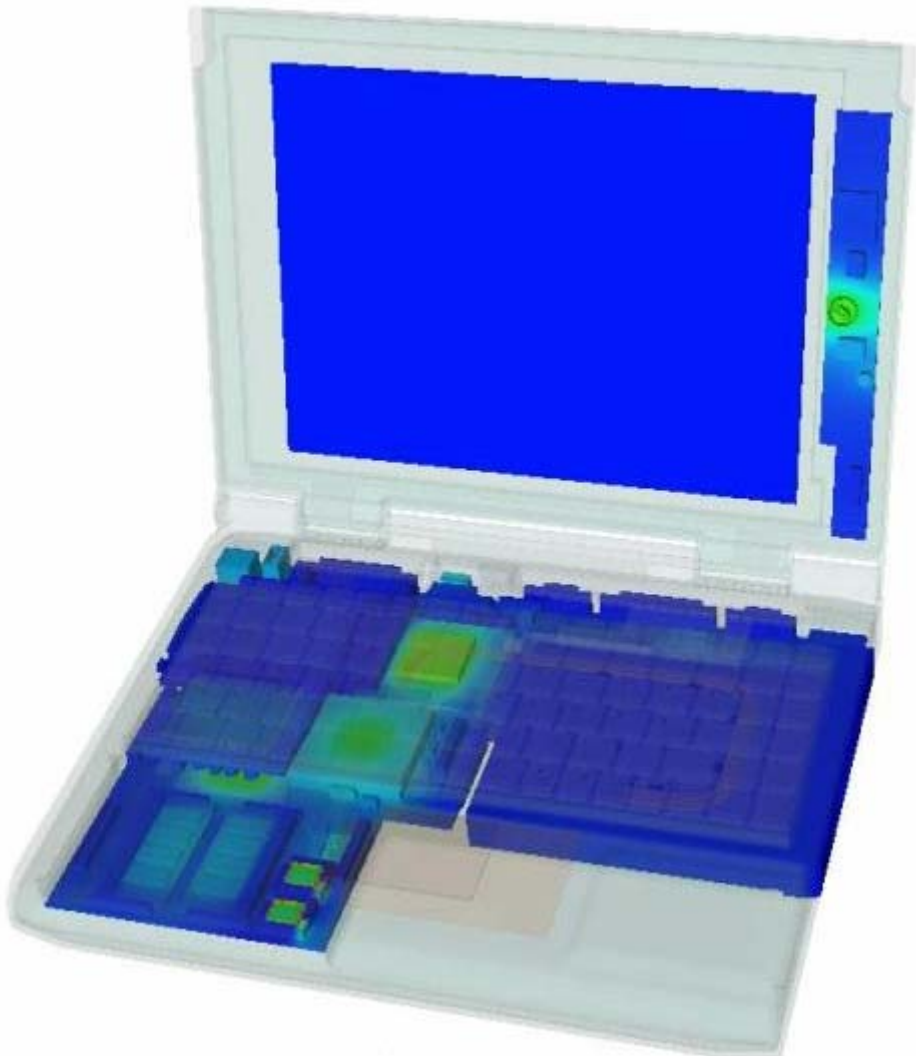
Wireless Laptops in the Primary Classroom



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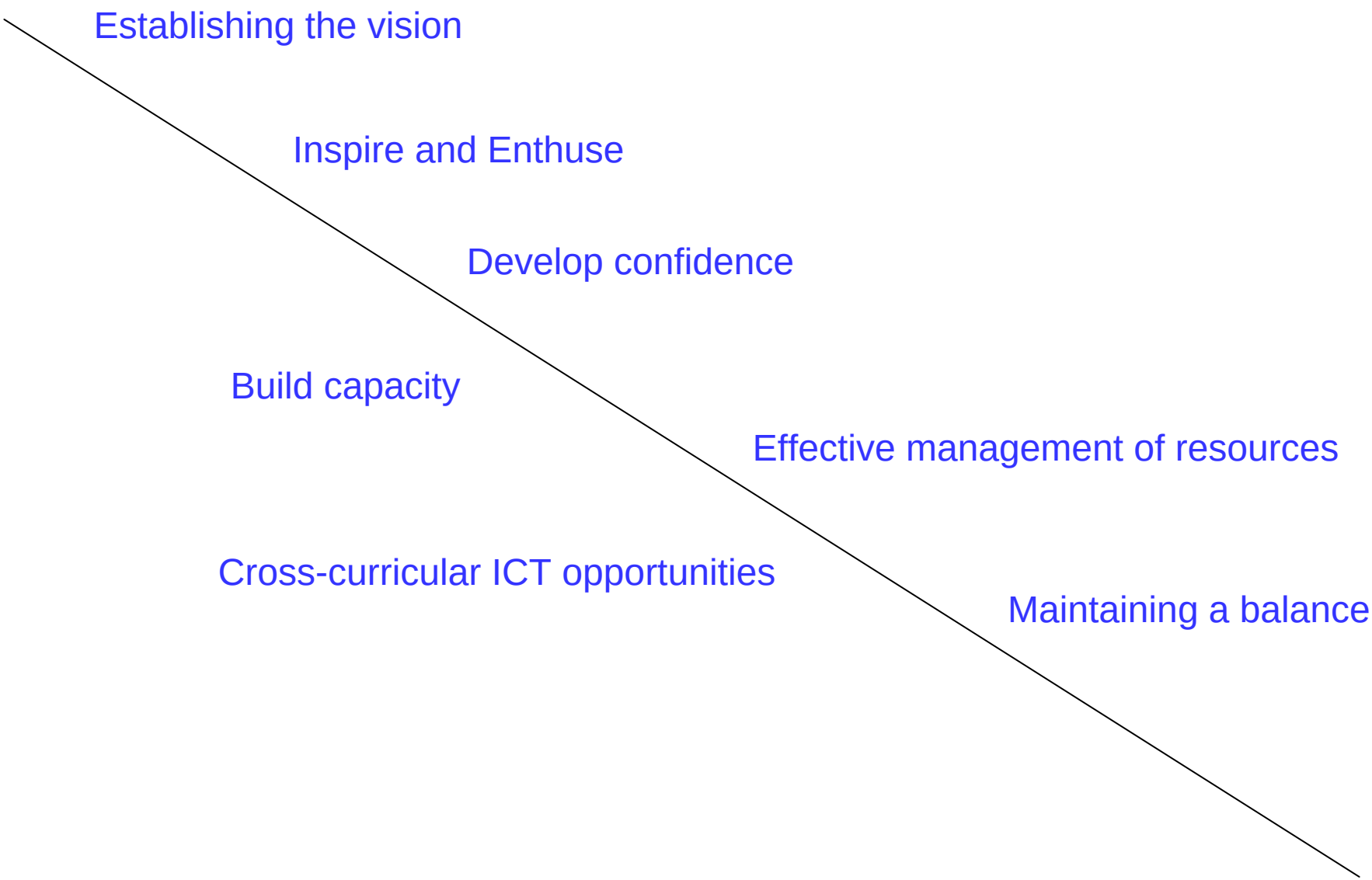
Colerne: Building Capability



The Driving Force

- Always feeling daunted by ICT, personally and professionally
- Own ineffective use of ICT
- Determination to equip pupils with ICT skills
- Experiencing ICT as a catalyst for disaffected learners

What is wireless networking?

A wireless network consists of two main components:

- Wireless access points/base stations

- Wireless card internally installed in a laptop or externally attached

Why use wireless laptops?

Have a clearly defined purpose!

- Further embed ICT into teaching and learning across the curriculum
- Enhance teaching and learning through the purposeful use of ICT
- Develop pupils' ICT skills through practical contexts

Making the right choice

When selecting our wireless laptops, we considered the following issues:

Price	- clear specification and budget
Performance	- software and internet
Signal strength and range	- site assessment/ black spots
Durability in the classroom	- handled by children regularly
Security	- data protection/encryption
Storage	- portable or fixed
Battery life	- maximum possible within budget
Maintenance	- regular technical support

Laptop Management

- Laptops are timetabled:

  - 2 sessions a week
  - in addition; free sessions can be booked

- Charging times incorporated into timetable

- Laptop Monitors identified in each class

Storage and Charging

- Laptops are centrally stored in a fixed cupboard:
  - more appropriate as all KS2 classes are situated around a central area
  - space saving
  - secure and inconspicuous

- Storage cupboard incorporates power-packs ensuring continual charging when in storage

Laptops in Practice: History

Objective: To present historical findings about the Indus Valley, referring to the historical significance of pictures and artefacts.

- How were laptops used?

-Children created Textease Presenter slideshow

 What were the advantages of using the laptops?

-Able to access primary and secondary sources of information from classroom

-Easy to organise and present ideas/ understanding

Indus Valley

A sample from a completed presentation where information, images and diagrams have been sourced from the Internet.

Where the Indus valley is

The Indus valley located in India and Pakistan and is one of the main rivers in the region.

It starts high in the Himalayas before dropping down and running though the India-Pakistan border.

It is in this part of the river that the ancient cities of Harappa and Mohenjo-Daro are to be found.

What was found

Artefacts include:

- weights of just under a 1/2 ounce (the smallest of weights found in a jewellers shop) and increment upward in units of 1, 2, 64 and finally 160.
- Hundreds of seals, most having a picture of a unicorn on them
- Gold and silver jewellery
- Copper and bronze tools, some used for farming. They were manufactured in two ways: 1) by casting (pouring molten metal into moulds); and 2) by heating and hammering the metal into shape.

Scroll Lock Off

A seal from Mohenjo Daro

Laptops in Practice : DT

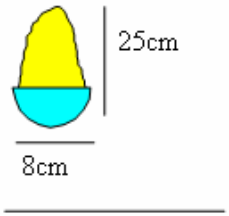
Objective: To produce a annotated design plan for slipper-making

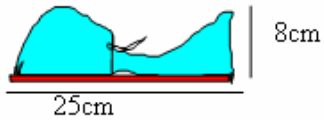
• How were the laptops used?
-Desk-top publishing package (DTP) used to create slipper designs

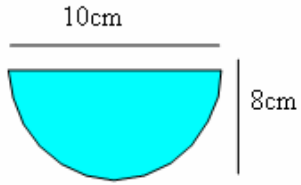
What were the advantages of using the laptops?
-Easy to create component shapes and duplicate (copy and paste)
-Components easily rotated and re-positioned
-Saved document opened and amended at the end of the process to include evaluation of the design/make process.

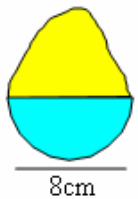
First stage in the DT design process

Slipper Design









MATERIALS

- Cardboard to be used for the sole of the shoe
- Wading to be used for the inside of the sole to make it comfortable
- Foam to be used to strengthen the sole of the shoe
- Wading to be used for the top of the shoe

What other ICT resources do we use?

- ✓ Interactive whiteboard
- ✓ Classroom PC’s
- ✓ ICT Suite
- ✓ Virtual Classroom Video-conferencing system
- ✓ Voting handsets
- ✓ Tablet PC’s

Wireless Laptops in Practice:

What we have learnt

- Use of the mouse pad
  - turn off the ‘click’ option
  - provide children with conventional mouse if necessary
- Power-saving options
  - turn off the ‘hibernation’ mode
- Wireless Black Spots
  - surveys are essential
  - new access points can conflict
- Be prepared for problems
  - backup documents on a memory stick
  - paper based alternatives
  - laptop champions
  - train any adult support
- ICT is a tool, don’t be a slave to it!

Advantages of Wireless Laptops

- Space saving
- Staff confidence
- Versatile
- Increases the use of ICT across the curriculum
- Staff and pupils use ICT as part of a learning toolkit – ICT becomes transparent and pupils focus on their learning

Purchasing Wireless Laptops: Key points to consider

- Consider piloting wireless technologies in a small area of your school. Easier to troubleshoot.
- Arrange for a wireless survey.
- Before purchase, consider;
  - Portability
  - Storage/ Security
  - Responsibility
- Plan how you will recharge the laptops' batteries.
- Try to visit other schools that are already using wireless networks.
- Keep a curriculum focus – the technology is a tool not a teacher.

Opportunities for ICT

- Read the objective
- Discuss/ record opportunities for ICT
- Evaluate the BECTA advise

Any questions?

Becta ICT Advice website

http://forum.ngfl.gov.uk/direct2u