Introduction

The purpose of this document is to provide an overview of the benefits of using an interactive whiteboard in the classroom to support the development of literacy. It covers the basic tools of the interactive whiteboard, some ideas and lesson outlines for classroom use and some further resources to enable you to effectively integrate the use of this technology in your classroom.

Benefits

The benefits of using an interactive whiteboard in the classroom include:

- The interactive whiteboard allows the computer to become a shared resource. Instead of crowding around a tiny screen or jostling to observe the teacher's demonstration, the interactive whiteboard allows pupils to access material easily from their own seats.
- The interactive whiteboard accommodates different learning styles. Tactile learners can touch and manipulate the board; recording tools can be used for audio learners; visual learners can track what is happening in a lesson as it happens.
- The interactive whiteboard allows immediate access to all the internet has to offer. Questions can be answered instantly by a Google search; images, video and audio are all easily accessible.
- The true power of the interactive whiteboard lies in its interactivity. Pupils can actively engage with material, manipulate learning objects and receive instant feedback on what they are working on.
- The interactive whiteboard allows notes, discussions and lessons to be preserved and accessed at will. Saving the ideas and concepts covered in a lesson means that pupils can easily refresh their knowledge and absent pupils can access material covered previously.

Classroom Application

Ideas for classroom application of this technology to support literacy include:

Using a picture

- Allows all pupils to see it at the same time.
- Use the reveal tool and spotlight tool to show elements of the picture at a time.
- Cover the picture with another colour and erase to reveal the picture slowly.
- Show one element of the picture and ask the pupils to guess what the rest of the picture might be, they could do this orally or in written format.
Sorting

- Use pictures (particularly those relevant to the children) to create a sorting activity. Pupils can drag images into specific categories, correct the order in which pictures are arranged or link them to a work or description.

- Ask pupils to describe why they categorised an image in a particular way i.e. was a frog sorted under animal or green? Invite class discussion to decide which is the most appropriate category and why?

Using written prompts

- Write up some key words on a topic on the board.

- Encourage children to come up and talk about/explain the key words.

- Create a group activity by allowing pupils to drag words they used in a sentence/given an antonym or synonym for into their box. Group with the most words in their box wins.

Text disclosure

- Present the class with a piece of text with letters missing.

- Ask the children to guess what letters are missing and what the text is about.

- Encourage them to find mistakes, missing capital letters, plurals etc.

- Fill out the text as the children predict what is missing.

- Read the text together.

Annotation

- Display a piece of text.

- Ask the pupils to come up and highlight capital letters, mistakes, rhyming words etc.

- Encourage them to come and write synonyms or antonyms beside key words etc.

- Capture a webpage or image.

- Ask pupils to label the picture, highlight headings etc.

Shared Reading

- Use the interactive whiteboard to share big books or stories on websites.

- Pupils can read the text and in most cases, there are sound files associated with tricky words which enable the children who are less fluent to contribute to the reading.

- Alternatively, ask the pupils to read a big book aloud and to record their reading so that a younger class could benefit from audio assistance on the same book.

- Classroom textbooks are available online from most of the major publishers.

Story Writing

- Create a story board of pictures, one for each group in your class.

- Allow the pupils to work in groups to write the story of their picture.

- Each group works on a subsequent picture to continue the story.

- Review and read the entire story as a class group.
Assessment

These examples outline ways in which the tools covered in this module can be used on the interactive whiteboard to assess literacy:

Cloze tests
- Use the pen tool to hide words in a piece of text. Ask the pupils to complete the text. Reveal the answers using the eraser tool.

Highlighting
- Ask the pupils to highlight items on the board. These could be related to parts of speech and punctuation, vocabulary, grammar etc.
- Open a newspaper online and ask the pupils to highlight adjectives or to highlight evidence of bias etc.

Story Prompts
- Ask the pupils to call out a character name, place, action, etc and write these on the interactive whiteboard as prompts. Ask pupils to write a story using the prompts given.

Definition
- Use the reveal tool to show the definition of a word and ask the pupils to guess the word from the definition. Ask them to put the word in a sentence/give an antonym or synonym of the word/spell the word etc.

Sorting
- Ask the pupils to sort a series of words into two boxes and explain the reason for their action. Interesting ones include having a box labelled ‘green’ and one labelled ‘animal’ – which box will the pupils sort the word ‘frog’ into? Why?
- Ask the pupils to sort verbs, nouns, words starting with or ending with specific sounds in a similar activity.

Special Educational Needs

These examples outline ways in which an interactive whiteboard can be used to support pupils with SEN:

- The interactive whiteboard provides a large display for visually impaired pupils.
- Pupils with motor skills difficulties can move material on the board using a tennis ball, their fist or other objects on certain boards.
- The interactive whiteboard caters for many different styles of learning.
- The interactive whiteboard encourages collaboration and cooperative learning.
- The material presented is visually engaging and can be resized according to a pupil’s needs.
- Pupils can create personalised resources that engage individual learners.
• Audio and video can easily be added to material to make it accessible to certain learners.
• A huge range of software and interactive websites are available for use with the interactive whiteboard.
• Learning is interactive! Pupils are engaged and involved in their learning.

**Useful Tips**

**Content**

• Keep it simple. Allow the pupils to create some of the resources as part of a free time activity. The interest level soars when they are using material created by themselves or their peers.

**Technical**

Calibrating the interactive whiteboard

• Calibrating the board involves running a small piece of software installed with the board. It allows the computer, the interactive whiteboard and the projector to work together. By pressing or clicking on each of the cross hairs that appears, you are telling the computer, and therefore the interactive whiteboard, exactly where the projected image is. This ensures that when you double click on an icon the computer knows what to do and opens the right application. If your cursor (or little arrow) seems to be too far away from where you are pointing, the chances are that you need to orientate or calibrate the board.

Showing the Screen

• Every teacher has experienced it – that heart stopping moment when your beautifully prepared resource opens on your laptop or PC but refuses point blank to display on the whiteboard. This is usually due to the display options on your laptop. Use the function keys to select the CRT/LCD option on your laptop (usually F4, F5 or F8) and denoted by two little monitor icons or the text CRT/LCD. Pressing Fn + F8 (or the appropriate key) allows you to move through a series of options i.e. laptop screen only, both screens or projected (interactive whiteboard) screen only. Give the computer a few seconds to respond and all should be well.

Getting help!

• Almost every problem that you face with an interactive whiteboard has been experienced before. Use other people’s knowledge to assist the smooth running of your interactive whiteboard. Some ideas include the following:
  • **A school knowledge base**
    It may be worthwhile maintaining a centrally accessible ICT log of frequently occurring issues and their resolutions. This could be available in the staffroom or office, online or through a server.
  • **Recruit the pupils**
    Encourage pupils to recognise and address frequently occurring issues. Even first class pupils are very adept at calibrating boards, sorting out sound and screen issues and addressing most basic problems and take great pride in their skills. An army of competent six year olds greatly reduces a teacher’s stress when everything seems to be going wrong!
• **Use the Internet**

  Most of the interactive whiteboard providers have dedicated support groups and forums where common problems are posted and solutions provided. These cover a wide range of interactive whiteboard related issues and are an excellent resource for any technical issue to do with your interactive whiteboard.

**NCTE Interactive Whiteboard Videos**

To learn how to use the interactive whiteboard to support literacy, please spend some time exploring the literacy activities at the following links:

• Literacy activity using the camera tool
  [http://www.ncte.ie/GoodPractice/Videos/#22024](http://www.ncte.ie/GoodPractice/Videos/#22024)

• Literacy activity using the pen & eraser
  [http://www.ncte.ie/GoodPractice/Videos/#22030](http://www.ncte.ie/GoodPractice/Videos/#22030)

• Literacy activity using grouping & linking
  [http://www.ncte.ie/GoodPractice/Videos/#22032](http://www.ncte.ie/GoodPractice/Videos/#22032)

• Literacy activity using linking
  [http://www.ncte.ie/GoodPractice/Videos/#22034](http://www.ncte.ie/GoodPractice/Videos/#22034)

• Literacy activity using locking & layering
  [http://www.ncte.ie/GoodPractice/Videos/#22036](http://www.ncte.ie/GoodPractice/Videos/#22036)

• Literacy activity using the reveal tool
  [http://www.ncte.ie/GoodPractice/Videos/#22038](http://www.ncte.ie/GoodPractice/Videos/#22038)

• Literacy activity using the shape & fill tools
  [http://www.ncte.ie/GoodPractice/Videos/#22040](http://www.ncte.ie/GoodPractice/Videos/#22040)

• Literacy activity using the spotlight tool
  [http://www.ncte.ie/GoodPractice/Videos/#22042](http://www.ncte.ie/GoodPractice/Videos/#22042)
Useful Links

- NCTE IWB Resource Area

- NCTE Advice Sheet on interactive whiteboards
  http://test.ncte.ie/media/16InteractiveWBs%28Nov09%29.pdf

- Making the most of your interactive whiteboard
  http://moe.eun.org/c/document_library/get_file?uuid=f4a9e773-b50a-4327-a16446d209e93eaa&group_id=10620

- Drumcondra Interactive Whiteboard Project
  http://www.cbiproject.net/

- Lesson Starter ideas for your Interactive Whiteboard
  http://www.whiteboardblog.co.uk/2010/07/lesson-starter-ideas-for-your-whiteboard/

- IWBS – 8 Ideas to keep it simple
  http://www.whiteboardblog.co.uk/2011/01/iwbs-8-ideas-to-keep-it-simple/

- Top five tips for creating resources for the interactive whiteboard
  http://www.boxoftricks.net/2008/08/top-five-tips-for-creating-resources-for-the-interactive-whiteboard/