

Connecting the Dots: Integrating Literacy, Numeracy and Digital Competency as Cross-curricular Responsibilities.

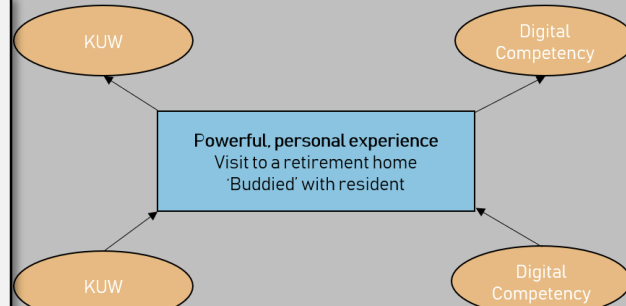
Cross curricular teaching and learning is a term that all schools in Wales are now familiar with. The transition that education in Wales is currently undergoing into a new curriculum, with the proposed Areas of Learning and Experience and the three cross curricular responsibilities, is an ideal opportunity to adopt a creative and cross-curricular way of teaching and learning within schools.



The benefits of such an approach are widely recognised, but many professionals within education remain unsure **how** to embed literacy, numeracy and digital competency across the curriculum. Using Barnes' (2015) cross-curricular models, this poster provides some illustrative examples of how practitioners may do this creatively and effectively. The context of these examples take place within a year 2 class in a school in a large Welsh town.

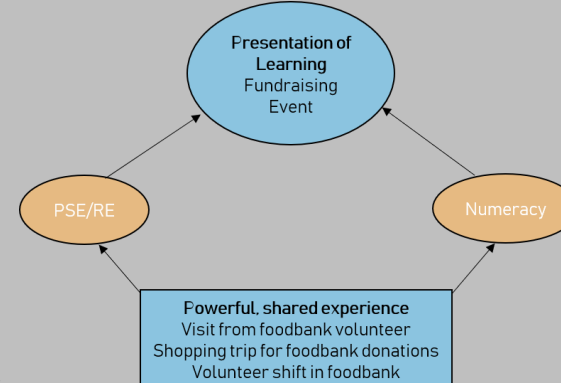
'Now and Then'

Multi-disciplinary Model



Literacy will be embedded throughout both examples

Inter-disciplinary Model



'Who is My Neighbour?'

- **Inter-disciplinary approach:** learning in both disciplines is enhanced by a powerful, shared experience and then connected in a creative, collaborative presentation of learning, applying skills and knowledge to a different context.
- **Theme:** Using the foodbank to explore and understand the concept of helping others in our community and foster empathy within the children.
- **Key Questions:** Who needs help? Who should help them? Why should we help people? How can we help others? How would you feel if...?
- **Skills:**
 - ✓ **PSE/RE (H&W/Humanities):** *express and communicate own and others' feelings, roles in communities, awareness of the needs of others, value and contribute to the needs of others, explore moral questions.*
 - ✓ **Literacy:** *express opinions and give reasons, speak clearly to range of audiences, listen and respond to others, use writing for different purposes*
 - ✓ **Numeracy:** *measure weight using standard units, manage money (financial literacy), reading numerical dates,*
 - ✓ **DC:** *using strategies to find information, create and edit multimedia.*

KUW/Humanities

- Establish prior knowledge: using key questions.
- Discuss what sources we have to find out about the past.
- Homework task of gathering information/photographs from family/friends.
- Discrete teaching on gathering data from and for graphs/tables.
- Fill in template poster comparing certain aspects of the past and present, and draw predictions of what children think this aspect will look like in the future. Present poster to class.

Digital Competency

- Discrete teaching on sending emails.
- Logging in
- Email addresses
- Subject
- Structure
- Inbox/draft/sent

Powerful, personal/shared experience: visit retirement home

KUW/Humanities

- **Interview and discuss** what the community used to be like, look at and discuss photographs/books together, and poster child has made. Listen to old music and sing together.

Digital Competency

- **Sending emails together:** child teaches resident how to send an email, resident supports with written literacy skills, resident sends an email to their younger self, child sends an email to their future self. Supported by library staff who runs adult digital learning sessions. Child's learning is strengthened and confidence is built by teaching adult learner.



Strengths

- Centres around powerful, emotionally significant, shared experience (Scoffham and Barnes, 2009).
- Relevant context for learning.
- Intergenerational dialogue (Wenger, 1998)
- Manageable for student/novice teachers & enjoyable for children (Barnes, 2015)
- Equal status to both disciplines, ensuring meaningful progress in both (Barnes, 2015).



Limitations

- Requires deep subject knowledge and teacher confidence in both disciplines.
- Subjects learning and skills must be made clear in planning and communicated to children so both pupil and teacher understand the direction of learning (Hattie, 2009).

Beginning the project

- **'The Good Samaritan'** story- use key questions in discussion
- **Introduce** the term 'foodbank' - what do they know already? What could it be?
- What do they want to find out? (AfL).
- Opportunities for independent and collaborative **research online** and through other resources.
- Discrete teaching on **digital presentations** (using more than one piece of software) leading to group presentations from research. (AfL)
- Discrete teaching on **measuring weight** and **reading dates in numerical form**- using foodbank donations and online supermarket websites as resources.

Presentation of Learning/Performance of Understanding

- **Christmas Fundraising event for Foodbank.** (Collaborate with KS2 class)
- Design digital posters to advertise event.
- Planned by the children.
- Freedom to choose variety of creative mediums to express learning journey. Particular focus on their own emotional response to learning. E.g. a short drama/dance, digital presentation, poetry, creative writing, art exhibits, photographs, music.
- Class to make a Christmas advert for Foodbank, choosing from a range of simple video-editing software.
- Cake and craft stall: buy ingredients/materials, total cost, ensure profit is made (with support), run stall, calculating change.



Strengths

- Centres around powerful, emotionally significant, shared experience.
- Provides different insights into same experience (Barnes, 2015)
- Collaborative/social learning (Bruner, 1960)
- Caters for 'multiple intelligences' (Gardner, 1993)



Limitations

- Most challenging cross-curricular model to carry out effectively.
- Requires strong subject knowledge and flexible teaching style (Barnes, 2015).
- Can lead to blurred boundaries between subjects and a lack of understanding of learning from both teacher and pupil (Barnes, 2015; Hayes, 2010)

Powerful, shared experiences

- **Interview foodbank volunteer:** prepare questions and record audio of interview.
- **Shopping trip for foodbank donations:** each child has £1. Use foodbank shopping list and Supermarket website to calculate what they can buy and how much change they should get.
- **Volunteer shift in foodbank:** sorting items by date, weighing donations in and out, making up parcels from lists (checking weight for correct amount). Filming/photographing 'behind the scenes' work.