Smartboards in Education: A Detailed Guide for Kenyan Schools

This guide provides a comprehensive overview of smartboards (interactive whiteboards), focusing on their use in Kenyan classrooms. It outlines benefits, setup, training, classroom integration, and local considerations under the Competency-Based Curriculum (CBC) and Digital Literacy Programme (DLP).

1. What is a Smartboard?

A smartboard is an interactive whiteboard that allows teachers and students to control computer applications directly from the screen using touch or stylus input. It combines the functionality of a traditional whiteboard with that of a computer, projector, and touchscreen.

2. Benefits of Using Smartboards in Schools

- Enhances student engagement through visual and hands-on interaction.
- Supports differentiated learning using multimedia tools.
- Encourages collaborative learning through group activities.
- Facilitates digital resource integration aligned with CBC.
- Allows for recording and saving lessons for revision or remote learning.

3. Types of Smartboards

• Infrared (IR) Smartboards – Use infrared sensors to detect touch.

• Capacitive Touch Smartboards – Similar to smartphone screens; more accurate and durable.

• Electromagnetic Smartboards – Use a special pen for precise input.

• Portable Interactive Kits – Convert standard whiteboards into smartboards (budget-friendly for rural schools).

4. Setting Up a Smartboard

Requirements:

- Projector (preferably short-throw or ultra-short-throw).
- Laptop or desktop with smartboard software (e.g., SMART Notebook, OpenBoard).

- Stable power supply and backup (consider solar for off-grid).
- Wall space or mobile stand for mounting.
- Internet (optional, but useful for cloud-based apps).

5. Classroom Integration Strategies

- Use for CBC assessments and performance tracking.
- Create interactive quizzes and drag-and-drop activities.
- Access and annotate KICD-approved eBooks and lessons.
- Demonstrate experiments in science using simulations.
- Show educational videos and pause to ask critical thinking questions.

6. Teacher Training & Support

Key Components of Training:

- Basics of operating the smartboard hardware.
- Using educational software and whiteboarding tools.
- Developing interactive CBC lesson plans.
- Collaborative sharing of smartboard materials among staff.
- Ongoing technical support via WhatsApp groups or school IT leads.

7. Cost and Procurement Considerations (Kenya)

Procurement Tips:

• Prioritize vendors with experience in CBC alignment and local support.

• Ask about solar-compatible models for off-grid schools.

• Request demos and success stories from other Kenyan schools.

8. Challenges & Solutions in Kenya

- Power Instability: Use solar backup systems and UPS.
- Internet Gaps: Download content offline in advance.
- Teacher Confidence: Offer peer mentoring and refresher training.
- Device Maintenance: Train ICT champions within the school for basic support.

9. Success Case Example – Makueni County

Schools in Makueni integrated smartboards with CBC science and literacy lessons. Through county and donor support, 30 schools installed interactive whiteboards. After six months,

student engagement and performance in science improved by 35%, and teachers reported more efficient lesson delivery.

Conclusion

Smartboards are powerful tools for transforming classroom instruction in Kenya. When implemented with proper training, maintenance, and integration into the CBC framework, they can dramatically improve teaching and learning outcomes across diverse settings.