

Interactive Whiteboards



Facilitator's Guide



Interactive Whiteboards

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Questions

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Please note that the World Wide Web is volatile and constantly changing. The URLs provided in the following references were accurate as of the date of publication.

Purpose of the Module

In this session, participants will familiarize themselves with the SMART Board™ interactive whiteboard and SMART Notebook™ software, important pieces of equipment in an eMINTS classroom. The SMART Board has many features that can truly enhance an inquiry-based learning environment. Knowing how to use SMART software, which works with many other applications, makes a teacher even more effective at the board.

ISTE NETS-T

Meets the following standards:

1. Facilitate and Inspire Student Learning and Creativity

- a. Teachers promote, support and model creative and innovative thinking and inventiveness.

2. Design and Develop Digital-Age Learning Experiences and Assessments

- a. Teachers design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity.
- c. Teachers customize and personalize learning activities to address students' diverse learning styles, working strategies and abilities using digital tools and resources.

3. Model Digital-Age Work and Learning

- c. Teachers communicate relevant information and ideas effectively to students, parents and peers using a variety of digital-age media and formats.

Supports the following standards:

1. Facilitate and Inspire Student Learning and Creativity

- d. Teachers model collaborative knowledge construction by engaging in learning with students, colleagues and others in face-to-face and virtual environments.

2. Design and Develop Digital-Age Learning Experiences and Assessments

- b. Teachers develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning and assessing their own progress.

5. Engage in Professional Growth and Leadership

- a. Teachers participate in local and global learning communities to explore creative applications of technology to improve student learning.

Session Conceptual Focus

eMINTS Instructional Model Quadrant: Powered by Technology Technology Integration

Technology literacy: Technology skills are developed by teachers and students and are appropriately applied to new technologies and situations within the context of learning and instruction.

Learning tool: Technology is seamlessly woven across disciplines as a fundamental tool for learning that enables users to complete tasks and demonstrate understanding in ways not possible without it.

Curriculum-framing Questions

Essential Question

- How does technology affect change?

Session Question

- How can technology support teaching and learning?

Content Questions

- How does an interactive whiteboard function?
- What are the key features and functions of SMART Notebook?
- How is an interactive whiteboard and related software used in the classroom?

Expected Outcomes

- Teachers use the basic features of the interactive whiteboard and related software on a regular basis during classroom instruction.
- Teachers encourage students to use the interactive whiteboard and related software for tasks that promote thinking and learning.

Copyright Information

Find SMART Notebook software at the following website: <http://www.smarttech.com>

The downloading and use of software from the SMART Technologies website is subject to the terms of the Software License Agreement that accompanies the product. Downloading and installing SMART software for use with any other manufacturer's whiteboard violates the agreement. Educators may install SMART Board and Notebook software on student machines. A watermark will appear on all student work until it is opened on the SMART Board teacher workstation. Some features of SMART Board software, including SMART Recorder and SMART Video Player, may not work on student machines because they are not connected to a SMART Board.

Suggested Learning Experiences

Facilitator Note

Each expected outcome should be addressed during this session. The activities that follow are designed to prepare participants to meet the expected outcomes by guiding them towards transfer of understanding into classroom practice. Activities are designed according to a facilitation level spectrum in which participants are first introduced to the session concept, then complete activities to gain deeper insight into how the concept is used in the classroom and, finally, transfer what they learn into classroom practice. A thorough explanation of each facilitation level follows. Activities at each level can be modified to suit the needs of different groups. In addition, if a group has a basic understanding of the concept, the facilitator may opt to use the activities included with this guide and develop additional activities at just the supports and transfer levels. The goal is for facilitators to prepare session activities that will help participants develop a deep understanding of the concepts so that their understanding of the concepts is apparent as they work with students in their eMINTS or eMINTS4ALL classrooms.

Explanation of Activity Facilitation Levels

Develops: Participants are introduced to a concept, discuss it and may list characteristics, attributes and so forth. The goal is to develop knowledge about the concept and comprehend what it means.

Supports: Participants begin to look deeper at the concept by analyzing and evaluating how it is used in the classroom. Activities include examining examples or case studies and judging the extent to which they demonstrate the instructional strategy, technique or learning experience design.

Transfer: Participants develop a plan to apply the strategy in their classrooms and then follow through with implementation.

Find all online resources in this module at

http://campus.emints.org/file.php/374/resource_links/interactivewhiteboard.html

15 Minutes Sign-in, Session Starter, Establish Session Goal

Purpose

Opening the session with a short activity that requires some light or fun creative thinking related to the session topic and gives each person an opportunity to speak will help participants transition from pre-session activities and prepare them mentally for active engagement in the session. In addition, once a participant has contributed to the session orally, that person is more likely to engage in subsequent discussions.

Team Draw

The goal of the opener is to provide each participant an opportunity to write on the SMART Board, invite creative thinking and highlight the use of a couple of SMART Board tools. To ensure participants engage in creative thinking, the facilitator should avoid suggestions as to what the group will be illustrating or drawing. During this opening activity each person will take a turn contributing to a team drawing. At the close of the activity, individuals will form personal interpretations of the drawing.

- Open SMART Notebook and provide a brief explanation of how to use a pen stylus to draw a line, circle or freeform mark (squiggle, arch and so forth).
- Explain to participants that they will be creating a drawing collaboratively. During the development of the drawing it is important for them to avoid talking about the drawing or making suggestions so each person has the opportunity to think and contribute creatively.
- Ask a volunteer to take a turn at the SMART Board using the stylus to contribute to the drawing. An individual's turn begins when they touch the board with a stylus. A turn is complete when the stylus no longer makes contact with the board.
- At the completion of the turn have the volunteer pass the stylus to another person in the group. The person with the stylus adds to the initial drawing following the same guidelines for beginning and ending a turn.
- Continue this process until each person in the cohort has had a turn contributing to the drawing.
- When everyone has contributed to the drawing pose the following reflection questions: "What thought does the image bring to mind or what does the image resemble?" "What might be the reason?" "What may have been one of the most important marks?" "If this were a work of art in a museum, what title might be given to the artwork?" "How many interactive whiteboard features were used?"

30 Minutes

SMART Board Introduction

Facilitation Level: Develops

Content Question

How does an interactive whiteboard function?

Materials Needed

- Copies of the participant module
- At least one computer attached to a SMART Board
- Participant laptops with SMART Board software

FOR MORE INFORMATION ABOUT OBTAINING COMPLETE COPIES OF eMINTS PROFESSIONAL DEVELOPMENT MATERIALS, USE THE "SEND A MESSAGE" FORM to eMINTS at:
<http://www.emints.org/contact/>

SMART Board Problem Scenarios

Scenario #1

Read the following scenario. As a group, determine how to solve the problem and be prepared to demonstrate the solution for the whole session.

The SMART Board is located at the front of the classroom and the teacher workstation is at the back of the classroom. During a lesson, the need arises to type a URL into the address bar of Internet Explorer. How can the teacher complete this task without returning to the teacher workstation?

Outline the steps required to solve the problem.

Scenario #2

Read the following scenario. As a group, determine how to solve the problem and be prepared to demonstrate the solution for the whole session.

Part of the morning routine includes starting the computer. To open Microsoft Word, the teacher double-clicks the Word icon on the SMART Board. However, nothing happens. The small light on the lower right of the Pen Tray is red instead of green. How might the teacher fix this problem?

Outline the steps required to solve the problem.

Classroom Application

Locate one or two SMART Notebook activities from the list available on the resource webpage. Evaluate the activity based on the following criteria:

- Are students actively engaged in constructing knowledge rather than passively receiving information?
- What type of thinking are they required to do?
- Does the activity meet diverse learner needs?
- Does the activity promote collaboration or interaction between students?