Workbook - Introducing Interactive Whiteboards

Overview:

The following lessons and objectives were covered in this course. Feel free to go back and review some or all of them, if necessary:

1. **Look at Interactive Whiteboards**
   - Discusses interactive whiteboards and their features.
   - Examines the interactive whiteboard as a digital flip chart.
   - Explores the different functionalities of different brands of interactive whiteboards.
   - Suggests which features of interactive whiteboards are best suited to different classroom settings.

2. **Compare Traditional Notes with Interactive Notes**
   - Examines the benefits of using interactive whiteboards for lecture notes over traditional note-taking methods.
   - Explores how notes on an interactive whiteboard can help you reach all types of students.

3. **Replace Traditional Projector and TV Presentations**
   - Introduces the advantages of using interactive whiteboards to present content.
   - Gives ideas for how interactive whiteboards can be used by teachers and students.
   - Provides resources to further explore the advantages of interactive whiteboards.

4. **Consider Interactive Whiteboards in Lesson Planning**
   - Discusses aspects of interactive whiteboards that should be considered before integrating them into lesson plans.
   - Looks at some of the equipment and software that can be used with interactive whiteboards.
   - Offers guidelines and ideas for planning lessons using the interactive whiteboard.

5. **Utilize Board Material After Class**
   - Describes the after-class benefits of interactive whiteboards for parents, teachers, students, and administrators.
   - Lists different ways teachers can re-purpose interactive whiteboard material.
   - Describes various ways to use and add to information created on the board.

Real-life Examples:

Here are some real-life examples of how the concepts discussed in this course could be used in a classroom, either as a teaching tool or an administrative aid:

1. **Create a Grammar Game**
   Create a grammar game for your Language Arts class on an interactive whiteboard. Begin by grouping the students into teams. With younger students, have them take turns using a digital pen or highlighter to highlight the parts of speech in a series of sentences. With older students, have

them completely diagram a sentence using a digital pen. The group or team with the most correct answers wins the game.

2. **Make a History Quiz**
   Using an interactive whiteboard, make an illustrated history quiz. Use pictures of the historical event, places, or people being studied. Have the students correctly identify the pictures.

3. **Understand Time Zones**
   Teach a time and geography lesson about time zones to your students. Use an interactive whiteboard to demonstrate, and graph on a map, the Prime Meridian and various time zones identified by their longitudinal coordinates.

4. **Write Interactive Notes in Trigonometry**
   When explaining how to graph the sine or cosine of a trigonometry problem, you can open a multimedia file that shows, with movement, the graphing of the particular wave. Students can view the sine wave as many times as needed.

5. **Create Notes about an Author for Language Arts**
   After writing a bulleted list of certain important facts about a book's author, you can show a recorded interview of the author revealing autobiographical information about himself or herself.

6. **Group Notes for Science Topics**
   Break students into groups and have each group present notes about a science topic. For elementary students, you could have four groups, one for each of the four seasons. Each group would write information about their particular season on the whiteboard and include graphics or photos from each season. For secondary students, you could group students according to the systems of the human body: nervous system, digestive system, respiratory system, circulatory system, and musculoskeletal system, then have them write notes on top of a graphic of the human body.

7. **Enhance Existing Lessons**
   To meet the needs of today's Web-savvy students, many teachers have a list of Web sites for each topic they cover in the course. Try integrating these Web sites into existing lessons and use the interactive whiteboard to explore them during the lesson. By doing this you can direct students to specific locations on the Web sites and discuss the relevance they have for the content before continuing with the presentation.

8. **Transform Science Lessons**
   Videos are a common instructional tool used in science classes. Why not enhance the use of videos by integrating the interactive whiteboard into the experience? For example, a biology teacher can transform the use of a video on cell division by playing it on an interactive whiteboard and then pausing the video at different stages and asking students to come up and label the phases as they appear.

9. **Foster Collaboration in Math and Language Arts Lessons**
   Asking students to collaboratively work out an algebra problem or brainstorm writing topics is a common activity in math and language arts classrooms. These experiences can be enhanced by

asking student groups to share the steps they took to solve a math problem or the results of the brainstorming session with the rest of the class using the interactive whiteboard.

10. **Use Storyboards and Slideshows**
    Incorporate the interactive whiteboard into your lesson plans by encouraging creative writing and displaying the work of your students. Make storyboards by having groups of students take photos of significant school activities such as lunch, art class, gym activities, etc. Show them as a slideshow on the whiteboard or use a photo editing program to display photos as thumbnails. Move them around on the whiteboard by using fingers or hands to show a story sequence or a timeline.

11. **Explore Weather in Real Time**
    In a science lesson on weather, use the interactive whiteboard to demonstrate what the weather is like in various parts of the country by accessing Web sites such as the Weather Channel or NOAA. Integrate a live shot from Mt. Washington, for instance, or one from Puerto Rico and compare weather simultaneously and in real time. Use markers to write comments, and print out the results for later review. In your lesson plans for this, be sure to include a backup plan in case the Web sites you want to use are down, or your Internet access is not working.

12. **Create an Overview**
    When starting a new unit, having an overview of the key points is crucial to understanding. Map the main ideas using lines, shapes, and colors to organize your presentation. The interactive whiteboard, with its manipulative features, helps to construct and deliver your major ideas in a visually cohesive manner.

13. **Act as a Mentor**
    If you've ever mentored new teachers, you know that teaching them how to best present material to a class is often a difficult task, but you can make it easier by recording your interactive whiteboard activities and passing them along. It'll save the newer teachers some heartache and headaches if they have a good idea of what works.

14. **Parent Homework Night**
    Each week, upload one of the interactive whiteboard activities you've used in class to a school Web site. Have students get their parents to access it and attempt to follow along with the material. Just this small glimpse into what your class is like can help them understand their children's learning path, and it may make your subsequent parent-teacher conference nights more meaningful.

15. **A Project to Span the Classes**
    Set up a project in which multiple classes you teach can participate and interact. In an English class, you can begin a story in one class, and have each class add to it. Or ask each art class you teach to use digital pens to add pieces to a digital canvas you display on the interactive whiteboard. Projects such as these can make students feel less like they're alone, and knowing that their peers will be viewing and adding to their work can bring out the best in them.

Exercises:

If you would like additional practice or review of the concepts covered in this course, try the following exercise(s) at your convenience:

1. If your school doesn't have interactive whiteboards, contact an interactive whiteboard manufacturer for a free demonstration at your school. Spend time learning the various ways lesson plans can be built and presented for a class. Take note of the many ways in which you and your students can interact with the board. Also talk with the vendor about educational grants that may be available for your school. If whiteboards are already available at your school, but you aren't sure of how to use them, contact your technology coordinator or IT about providing a demonstration in using them.

2. Think of some lessons that you do that could include interactive whiteboards in your lesson planning. After reviewing your school's Acceptable Use Policy, make a list of the equipment you'll need and the time it will take for students to complete the assignment. Make sure to preview the Web sites that you select for your lessons to ensure the content is appropriate.