



Expanding Educational Horizons

Caenwood Centre, Grant Hall, 37 Arnold Road, Kingston 5
Tel: (876) 967-5192 or 922-0783



TECHNOLOGY INTEGRATION IN THE PRIMARY CLASSROOM

*Developed by the
Educational Technology Team
2009*

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Note to Teacher

Dear Teacher,

This mini-guide was developed for teachers at Grades 1-4 in the Expanding Educational Horizons (EEH) schools in response to teachers' requests for support material to assist them in delivering literacy and numeracy activities using available educational technologies. It deals with five specific technologies: the boom box, overhead projector, AlphaSmart and Laptop computers, and digital camera.

Objectives:

By the end of this mini-guide you will be able to:

- (a) Identify instructional technologies suitable for the primary level curriculum;
- (b) Explain what is meant by technology integration;
- (c) Discuss ways to infuse technologies into the primary curriculum;
- (d) Develop a plan for a lesson in which technology will be used.

We hope that you will find this mini-guide quite helpful as you use educational technologies to support literacy and numeracy activities in your lessons.

Yours truly,

Melody Williams (Dr.)

Andrea Pinnock (Ms.)

Educational Technology Specialists

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- | | |
|--------------------------|------------------------------|
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| 4. Mr. Derrick Hall | Numeracy Specialist |
| 5. Ms. Simone Bullock | School Management Specialist |



1. What is Technology Integration?

Technology integration is the use of technology resources – computers, cameras, CD-ROMs, software applications, the Internet, tape recorders, overhead projectors – in daily classroom practices and in the management of the school.

Effective infusion of technology is achieved when students are able to select technology tools to help them find information in a timely manner, analyze and synthesize it, and present it in an acceptable fashion. The use of educational technologies should gradually become an essential part of classroom practice. Technology integration is realized when the use of technology is routine and transparent, that is, the student or the teacher does not stop to think that he or she is using some form of technology resource, be it a computer or Internet research.

2. Benefits of Technology Integration

Studies show that effective integration of computer technologies into the teaching and learning process:

- (a) Positively influences student academic performance,
- (b) Develops higher-order thinking,
- (c) Improves student interest and attitude,
- (d) Addresses the needs of low performing and at-risk students.

A study by the *Center for Applied Research in Educational Technology (CARET)* has shown under what conditions technology can improve student performance. The technology application must:

- Directly support the curriculum objectives being assessed.
- Provide opportunities for student collaboration.
- Adjust for student ability and prior experience, and provide feedback to the student and teacher about student performance or progress.
- Be integrated into the typical instructional day.
- Be used in environments where teachers, the school community, and school and district administrators support the use of technology.

Visit <http://caret.iste.org/index.cfm?fuseaction=answers&QuestionID=1> for details.

These findings were supported by another study "The Future of Children: Children and Computer Technology" by the David and Lucile Packard Foundation. It suggests that technology can enhance how children learn by supporting four key components of learning: active engagement; participation in groups; frequent interaction and feedback, and connections to real-world experts.



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Reeves (1998) reviewed literature examining the effectiveness of technology and media as educational tools. He made the followings conclusions:

- Computer-based instruction has been shown to impact student performance in a number of different academic areas (e.g., math, science). This positive impact takes the form of increased performance on standardized measures of student achievement, increased student motivation, and faster rates of learning.
- The use of media and technology as [cognitive tools](#) is also an effective use of instructional technology. Cognitive tools include concept mapping software such as Kidspiration; spreadsheet software e.g. Excel. These cognitive tools are particularly effective when employed within a constructivist environment.
- The use of cognitive tools promotes the development of reflective thinking.
- The use of cognitive tools not only provides support for the development of higher-order mental skills, but it also provides expertise with the use of the actual tools themselves.
- Multimedia presentation software can support development of a wide range of student abilities, including time management, organizational, presentation, and reflective thinking skills.

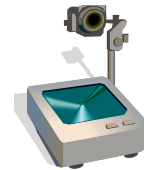
Given the benefits of the use of educational technology, we need to think about organizing learning experiences for our students that will incorporate technologies. In the section that follows you will read about examples of how teachers use various technologies in their lessons.

Recommended Reading

Reeves, T.C. (1998). *The impact of media and technology in schools: A research report prepared for The Bertelsmann Foundation*. Retrieved January 28, 2002, from http://www.athensacademy.org/instruct/media_tech/reeves0.html

3. Examples of Technologies in Action

Educational technology does not just mean use of the latest computer. It includes equipment that has been used in the classroom for decades. In this section we will review various types of educational technology, talk about the advantages and disadvantages of each, and suggest a few ways of using it in the classroom.



3.1 Overhead Projector

The overhead projector is a display system that is used to present images to an audience.

The transparencies that are used for projection are easy-to-use and cheap. The teacher can face the students while reviewing notes and written examples that had been previously prepared. Not only does the lesson become more engaging, but the teacher has become more efficient by sharing or creating reusable work.



Figure 1: Student writing on a transparency

Take, for example, a science lesson on levers. The overhead projector can be used with manipulatives to represent levers, fulcrums, load and force. The cutouts are made from transparencies or cardboard. The lesson involves students working at the projector to create examples of different types of levers.

Visit the following websites for lesson ideas on using the overhead projector.

Games: <http://iteslj.org/games/9993.html>

Student Activities: <http://www.usmint.gov/kids/teachers/lessonPlans/50sq/2004/0203-6.pdf>

Lesson Plan Ideas: <http://www.sciencetech.technomuses.ca/english/schoolzone/sound3.cfm>



3.2 Tape Recorder/Boom Box

Creative uses of “older” technologies can foster interesting and engaging lessons. The tape recorder and boom box, like the overhead projector, are other examples of other “older” technologies that can be used creatively to engage the student and help save time. They are also quite affordable.

A fun activity for the whole class is to use a student to become the classroom DJ. With a microphone, the student DJ announces the topic of the day’s lesson.. Or, with a book in hand, the students read along with their teacher during a reading session. The children could also listen to a recording of their teacher who recorded the book on tape some time before.

The boom box can be used as a tool in creating electronic portfolios. A portfolio is a restricted collection of a student’s work that is used to either showcase the student’s best work or show the student’s learning progress over a period of time. An *electronic* portfolio presents the student’s work in electronic format e.g. audio tape of student’s reading or thinking process when solving a problem, CD with his digital story, video clip of his oral presentation.



Figure 2: Student reading his work aloud to the class

Teachers can use the tape recorder to record a student’s reading of a text at regular intervals. The reading is assessed at each interval and improvement strategies planned to enhance reading fluency.



3.3 AlphaSmart Computers

The AlphaSmart is a durable, battery-operated device that can be carried into the classroom and used by one child or many. It represents an attractive blend of hi-tech and simple features.

The AlphaSmart, which features a basic word processing and a calculator, has a full-sized keyboard and a display screen that shows four lines of text or numbers. Additional programs can be purchased, for example, AlphaQuiz allows the teacher to create quizzes. The AlphaSmart directly involves the students and begins to develop their basic keyboarding skills that will serve them well in the future. Additionally, the AlphaSmart supports the transfer of information between the computer and the printer.

Flexibility and multipurpose are desirable features for any educational technology. The AlphaSmart can be that tool, as it can supplement a lesson (e.g. to take interview notes) or it can be integral to the lesson when it is used for typing.

Figure 3 presents some lesson ideas for the AlphaSmart computers.

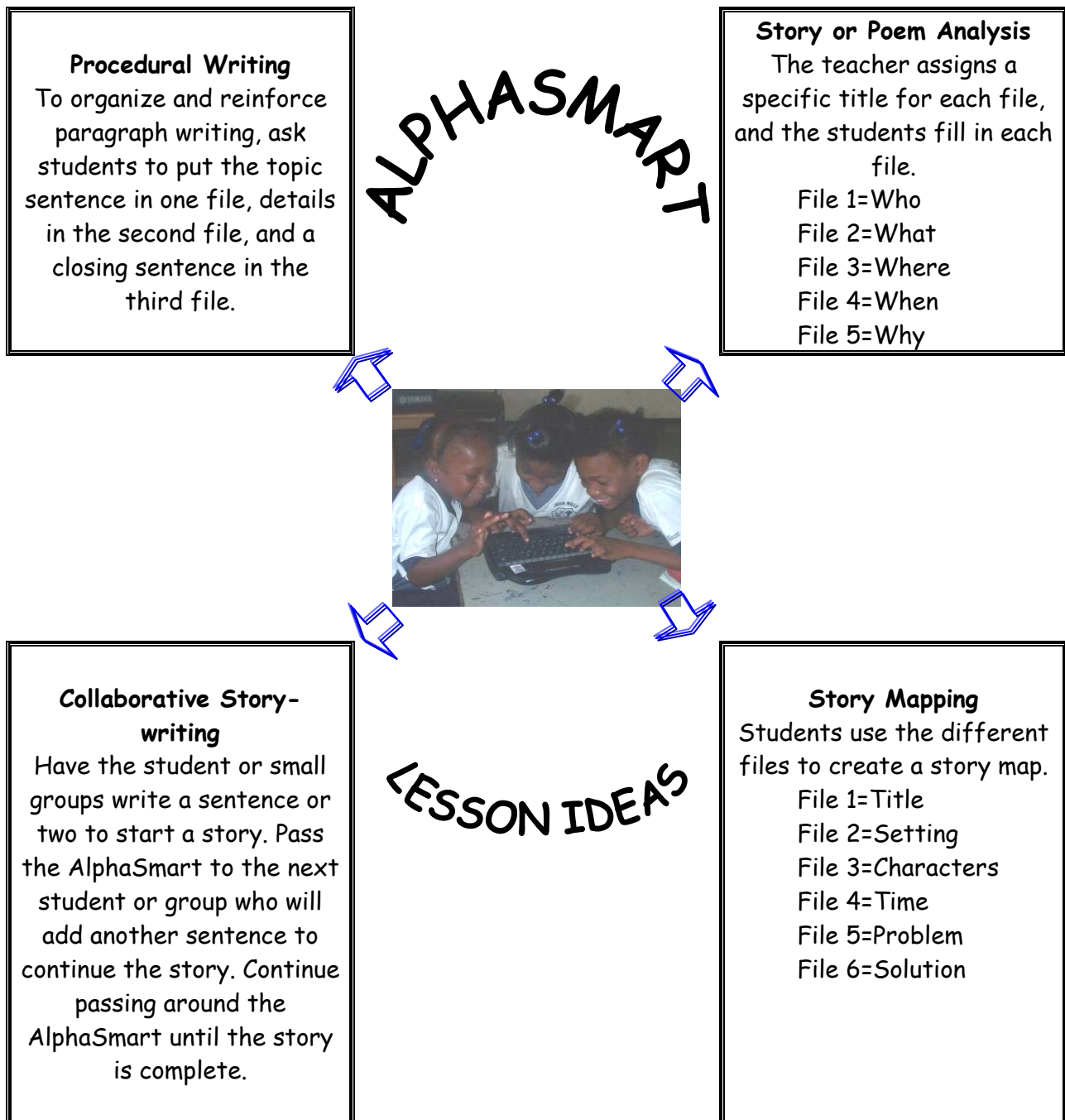


Figure 3 AlphaSmart Lesson Ideas

For more lesson ideas, visit the AlphaSmart Web Site at www.alphasmart.com.

3.4 Digital Camera



The digital camera is another technology tool that finds great application in the classroom. It has emerged as an effective tool for the classroom as it allows for the collection and documentation of exciting events in the environment. Properly integrated, the digital camera can help link the lesson to the students' lives. It can be used, for example, in the development of stories, class newsletter, and community-based research.

While not low-cost, digital cameras are still less expensive than other digital technologies such as the camcorder. Also, cameras can be easily shared between classes and allow many images to be captured quickly and easily. Pictures can provide an important context for a child's learning experience. Presenting images that are culturally relevant can be a powerful strategy for students to learn about their community.

For example, when teaching vocabulary, send students outdoors with the digital camera to take pictures of objects, events or actions that represent the vocabulary being discussed. Ask students to write a sentence or paragraph highlighting new vocabulary. This is an exciting way to get students to increase their vocabulary and become better readers. You could also give students opportunities to use the digital camera to take pictures of events or actions that reflect those in a story that was read to them, download the pictures on the computer, and then write a sentence or paragraph about each picture. Having students take a picture of the story event or action helps them to relate what they are reading to their own lives and their community.

The camera can also be effectively used in digital storytelling, which is a method of producing narrated short films using still photos, music and voice. For the Grade 3 lesson on *Who are the people in my Community*, both teacher and students can go in the community with the digital camera and AlphaSmart computers or notebooks, take pictures of community helpers and write sentences about their roles in the community. The pictures can then be downloaded to the computer and using a suitable programme like *Microsoft's PowerPoint, Windows Movie Maker* or *PhotoStory*, both teacher and students can produce their story, including narration for each picture. See Figure 4 for an example of how one teacher used the photos taken by a digital camera to create a digital story entitled "Safe and Unsafe Places".

Grade 1 teacher, Kimlow Wallace and her students from Victoria All-Age School participated in a digital storytelling exercise. Following the Digital Storytelling workshop, Ms. Wallace used the story that she created at the workshop in one of her lessons. Students were enthused about the digital story that she produced and asked if they could get the chance to make a story for themselves.



Student with headset recording a reading for the digital story

Ms. Wallace capitalized on their interest in digital stories after realizing that a lesson she had done with her students about the unsafe places in the schoolyard wasn't very effective. She got her students involved in making a story hoping that they would learn and at the same time see the importance of avoiding these places. Ms. Wallace had a class discussion, after which the class went on a tour of the school and community. Using the digital camera, they took photographs of the safe and unsafe places. The students were anxious to put narration to the photographs and Ms. Wallace helped them to do this. They came up with the idea of a song for which they created the words. The teacher helped them to fine tune the rhythm. "It was fun!" exclaimed Ms. Wallace.

Figure 4 A Teacher's Story

See Figure 5 for screen shots of digital story "Safe and Unsafe Places".

Below are other ways in which the digital camera can be used to develop classroom materials.

- Create a story of shapes or numbers that uses familiar images.
- Develop instructional materials with pictures of processes and events such as using measuring equipment and cultural presentations.
- Produce an electronic yearbook that includes students' pictures and autobiographical information.

Visit the following website for more information on using the digital camera for teaching and learning: <http://drscavanaugh.org/digitalcamera/whatdo.htm>

Safe and Unsafe Places at My School

by: Grade 1W

Victoria All- Age School
April 2008



My classroom is pretty. It is a safe place.



The tank is unsafe. We must not play on the tank.



We are playing a ring game down the playing field because it is safe.



The rail is unsafe. We must not climb on it.



The septic tank is unsafe. We must not play in it because we will get germs.



The gully is unsafe. We must not play hide-and-seek down there.



We must not play on the old tank because it is very, very dangerous.



We must not run across the road because it is very, very dangerous and we will get hurt.



Safe places are good, unsafe places are dangerous. We would rather stay in safe places than be in unsafe places.

Figure 5 Screen Shots of digital presentation “Safe and Unsafe Places”

3.5 Laptop/Desktop Computer



Do not despair if you have just one computer in your classroom. There are effective ways to use a single computer in the teaching-learning process. It can be used as one station or in a series of multiple work stations, with each station having a different activity. The computer, of course, will form one of those stations.

A computer used a work station can be used to learning, assessment, information, and presentation.

Learning Station

- Offer activities that will reinforce letter, number, color, shape and other concepts.
- Use drill and practice exercises to help students in need of remediation, and to develop problem solving and critical thinking skills.
- Use templates (e.g. tables with headings, Venn diagrams) to help students organize information gathered on a topic.
- With the aid of text-to-speech software, let students listen to an oral reading of vocabulary words or a passage that they wrote. For example, use a text-to-speech tool such as *ReadPlease 2003* to help your students with writing. Ask students to write a sentence or paragraph on a topic from the curriculum and copy and paste the text in *ReadPlease* which then reads and highlights words in the text. Students can listen to the reading of their written work for word and punctuation omissions and listen to the structure and content of the sentences. You can download *ReadPlease* at: <http://www.readplease.com>

Assessment Station

Pairs of students can take a quiz to test listening and comprehension skills or their ability to identify words, numbers and letters.

Information Station

Students can use the Encarta CD or connect to websites on the internet to get information in multimedia formats on a topic in the curriculum, e.g. My Body or Water Conservation.



Figure 6 A group of boys exploring software on the computer

Presentation Station

When the computer is used as a presentation station, the multimedia projector or the television is used to show the material to the whole class. Here are some ideas for the presentation station.



- Present and read an electronic book to the class or have students listen to an audio recording of a story e.g. Storyland, and then invite students to do a Sound Search or Find the Word activity.
- Choose one of the math activities on the Numeracy Interactive Software e.g. Number Facts or Play Train. Invite students to come to the station and show their understanding of addition and subtraction.
- Poll the class on a topic, make a graph, and compare results.
- Get students to use the camera to take pictures to highlight aspects of the Jamaican culture or produce a short story on their favourite animal using presentation software and then share their creative products with the class.
- Use Kidspiration to generate ideas on plants, create a story map, and prepare comparison charts to highlight similarities between plants and animals.

Remember that when using a single computer in the classroom, other supporting stations could be set up with different but related activities, such as (a) a reading corner, (b) an AlphaSmart table, (c) a measuring station, (d) a listening station where students listen to an audio story, or (e) a construction station where students manipulate limited resources. Remember to rotate students from one station to another in small groups at twenty minute intervals. At each station, the group works together to gather information and/or create a product.

Visit <http://webtech.kennesaw.edu/jcheek3/onecomputer.htm> for more tips on how to use a single computer in the classroom.

4. Effective Technology Integration

Often teachers can get caught up in using technology for technology's sake. To be effective implementers of TI lessons, teachers need to focus on the instruction that is occurring in the classroom first, before focusing on the technology tools being used. When we consider technology integration, we should ask how the students will benefit. Is the technology helping students to achieve the objectives? How involved are the students in the classroom decision-making process? Do students help determine the problem being studied or have input in the final product that is produced?

Read the following account of Mrs. Lindo's use of technology in her Grade 4 classroom. .

Mrs. Lindo's Class

*My Grade 4 class is exposed to technology. They are currently studying **the most common things in religious groups** so I had a guest speaker come in to talk about Hinduism and Buddhism. The presenter used the microphone and boom box, laptop and multimedia projector to deliver the presentation. The students helped the presenter to set up the equipment. Afterwards, my students integrated visual art and social studies as they made a religious emblem out of indigenous materials for each religious group.*

Curriculum Link: Grade 4 RPC p.263



Do you think this is a good example of effective technology integration? If not, why not? Can you give examples of how she might have shown effective technology integration? The kind of technology used in Mrs. Lindo's classroom is not a good example of effective technology integration. The teachers could have asked the students to use the Encarta CD to help make comparisons between the two religions, and then have the class use a Venn Diagram, generated by Kidspiration to document and present the comparisons. It was only the guest speaker who used the technology.

What kind of technology-integration lessons do you normally deliver? Try not to use technology to merely accomplish basic tasks (e.g. creating a multimedia slide show, browsing the Internet), but rather to seamlessly integrate technology in an exemplary fashion that supports purposeful problem-solving, real life assessment practices, and meaningful learning.

To help you develop a better conception of technology implementation in the classroom, visit and explore resources at <http://fcit.usf.edu/matrix/>. This website explains the Technology Integration Matrix (TIM), which shows how teachers can use technology to enhance learning for students at the primary level. The TIM presents five interdependent features of meaningful learning environments: active, constructive, goal directed (i.e., reflective), authentic, and collaborative (Jonassen, Howland, Moore, & Marra, 2003). The TIM connects five levels of technology integration (i.e., entry, adoption, adaptation, infusion, and transformation) with each of the five characteristics of meaningful learning environments. Together, the five levels of technology integration and the five characteristics of meaningful learning environments create a matrix of 25 cells, which is displayed on the website.

5. Planning a Technology Integration Lesson

Use of technology in the classroom may seem overwhelming at first. But as you become more aware of the potential for educational technologies, planning for integrating technology into the classroom will gradually become easier. When planning for effective technology integration, engage your kind in the following processes:

1. Analyze your students to get an understanding of their instructional needs, interests, learning styles;
2. Identify objectives for the lesson;
3. Select suitable technologies to help students achieve the objectives and cater to their learning preferences;
4. Design activities to help you and your students use the technologies to achieve the objectives;
5. Formulate activities to evaluate student learning.

To help you go through these processes in your planning, read the lesson plan in Table 1 You may use the lesson plan templates in the Appendix 1 and Appendix 2 to guide you in the writing your plan.



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Table 1: Sample Lesson Plan

Teacher: Mrs. Cole		School: Norman Gardens Primary and Junior High School	
Subject: Mathematics Project		Grade: 1	# of students: 20
Date: April, 2009			
Description of Students Seven year olds who are highly motivated and want to learn			
Focus Question: What are the activities in which we take part as a family?			Duration: 3 x 60 minutes
Attainment Target(s): Know the value of numerals and associate them with their names, numbers and the basic operations of addition facts to ten.			
Lesson Objectives: <ol style="list-style-type: none"> 1. Read story “Feast for 10” from Marilyn Burns Classroom Math Library. 2. Demonstrate recognition of the numerals 0 through to 10. 3. Associate numerals 0 through to 10 with their names and values/numbers 4. Use overhead projector to display the ordering of numerals 1 through 10. 5. Use overhead projector to display and talk about their drawing of selected numerals 6. Identify the plus (+) and equal (=) signs in simple problems. 7. Identify and combine two sets of numerals//numbers to make ten e.g. 5+3=8 8. Demonstrate an understanding of how to solve simple word problems based on family activities. (The Wedding) 9. Work in peers to create simple addition word problem 10. Use Alpha Smarts to write simple word problems from a given pictures about the wedding which was a role play activity done in the Integrated Studies class.(see video) 11. Work in small groups to organize the number story of the wedding activity to make a big book. 			
Technology Integration Statement Students will use AlphaSmart computers to type simple word problems from a given pictures about the wedding which was a role play activity done in the Integrated Studies class.			
Previous knowledge and skills Students are aware of numerals 1 through 10 and can associate them with their names, numbers and ordinals. They are also aware of the meanings of the plus and equal signs and the operation of addition.			
Technology Skills required e.g. manipulating mouse, taking pictures, downloading pictures Using the AlphaSmart and overhead projector			
Resources Needed			
Printed media Math Book entitled “Feast for 10”, Transparencies with pages of “Feast for 10” Pictures from DVD entitled “The Wedding”,	Computer-based media Tape with story entitled “Feast for 10” DVD with “The Wedding”	Equipment Alpha Smart, CD player/Tape recorder, overhead projector, counters, crayons, markers	



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Teacher and Student Activities
Session 1
Introduction
<p>The teacher will:</p> <ol style="list-style-type: none"> 1. Have students comfortably seated in full view of the story book at eye level. 2. Sing song “Are You Looking?” to get students fully alert.
Development
<ol style="list-style-type: none"> 1. Teacher and students will discuss the family activity that is taking place in the story to get students’ acquainted with the contents of the book “Feast For Ten” . There will be no discussion on the numerals at this time.
<ol style="list-style-type: none"> 2. The teachers will play the recorded story “Feast For Ten” as students listen and observe the pictures in the book.
<ol style="list-style-type: none"> 3. Students and teacher will discuss the information that was read in the story to page 16. Question and answer session will follow, focusing on the numerals and numbers on each page in sequence of appearance.
<ol style="list-style-type: none"> 4. Individual numbers will be taken from the pocket of number chart “Feast for Ten”, and play the game “What am I”. (Game will be played with actual shape of numerals.)
<ol style="list-style-type: none"> 5. Students will participate in sequencing of the numerals one to ten through the use of the provided transparencies. Individual students will be required to place transparency of pictures copied from book “Feast for Ten” on the overhead projector in the correct corresponding order from randomly arranged numerals. Students will be asked to read along. The transparencies will be given randomly to individual students.
<ol style="list-style-type: none"> 6. On a given transparency, students in groups of six will write the name and value of one numeral they remember from the story “Feast for 10”. 7. On completion, one student from each group will be asked to place their work on the overhead projector and explain what is being seen.
<ol style="list-style-type: none"> 8. Students and teacher will participate in the song “Ten Little Hands”. <p style="text-align: center;">Ten Little Hands (Tune: Ten Little Indian Boys) One little, two little, three hands Four little, five little, six little hands Seven little, eight little, nine little hands Ten little hands to load the car They jumped in the car and drove the way home Jumped in the car and drove the home (rpt 2) Getting ready for their feast.</p>
Assessment
<p>During the singing of this song each student will use the provided counters to participate in an activity.</p>



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Session 2
Introduction
1. Teacher will begin with the singing of the song: “Ten little Hands” through the use of finger play.
Development
2. Teacher and students will participate in the reading of the remaining pages 17 – 31 in the book ‘Feast for Ten’ for reinforcement.
3. Teacher will reinforce the meaning of the plus (+) and equal (=) signs at this point. This will be done through “finger play” activities. a. Teacher will choose a page from the book and allow students to observe and formulate a number sentence of addition which will be written on transparency to be projected on the screen for e.g. on page 8 of “Feast For Ten”, it will show 2 boys + 2 girls = 4 children. b. Teacher and students will discuss the signs + and =, then the students will do finger play to reinforce the plus and equal signs.
Assessment
1. Students will use pictures about “The Wedding” from Integrated Study class to make number sentences of addition.
Session 3
Introduction
1. Teacher will revise the writing of number sentences. 2. Teacher will further reinforce the combination of ten facts in words by using the word ‘and’ for the plus sign and the word ‘make’ for the equal sign.
Development
In groups of six with the use of the Alpha Smart make up their own word problems based on pictures captured from the DVD on “The Wedding” which was dramatized and recorded in the Integrated Study class.
Assessment
The following activities will be done: 1. Teacher together with students will create a PowerPoint presentation showing pictures from DVD, students’ word problems and number sentences for each picture. 2. Teacher will ask students to read the sentence. During the reading, teacher will record the reading and insert the audio clip on the PowerPoint slide. 3. Students will listen back to the reading to ensure that numbers are correctly identified. 4. Teacher will help students to create a Number Story Big Book using the wedding pictures from DVD (similar to “Feast for Ten”).



Summary

In this mini-guide, we have presented various perspectives on technology integration. The recurring idea is that technology integration involves the use of technology tools in a routine manner and offers a productive environment for the development of students' understanding of the relevant concepts, themes, and processes.

You were also provided with several infusion ideas for educational technologies such as the overhead projector, boom box, digital camera, AlphaSmart and Laptop computers.

Finally we looked at tips for planning a technology integrated lesson. These tips encouraged you to (a) consider the characteristics of your students, (b) clearly identify the knowledge, skills and attitudes that your students should achieve at the end of the instruction, (c) select suitable technologies to match your students' learning needs and preferences, (d) describe how you and your students will use the technologies and (e) how the lesson will be evaluated.

Try to use technologies effectively in your lessons, paying close attention to developing activities that will help your students advance in the areas of literacy and numeracy, develop higher order thinking skills and prepare them for future endeavours.



Appendix 1 Lesson Plan Template (Electronic Version)

Teacher:		School:	
Subject:		Grade:	# of students: ___ Boys ___ Girls
Date:			
Description of Students			
Focus Question: <i>Click here</i>			Duration:
Attainment Target(s): [Click here to type the attainment target being covered. If it is too long, summarise and give page numbers in curriculum.]			
Lesson Objectives: [Click here to type objectives for the lesson, that is, what the students will be able to do at the end of the lesson.]			
Technology Integration Statement [Click here to write a statement on how technology will be used to facilitate the attainment of objectives.]			
Previous knowledge and skills [Click here to type the knowledge and skills that your students have as a basis for this lesson.]			
Technology Skills required e.g. manipulating mouse, taking pictures, downloading pictures [Click here to type the technology skills that are required for this lesson.]			
Resources Needed			
Printed media [Click here to type titles of media such as books, handouts, worksheets etc.]	Computer-based media [Click here to type titles of application software e.g. PowerPoint, KidPix, and URLs etc.]	Equipment [Click here to type equipment needed e.g. computers, projector, etc.]	
Teacher Activities		Student Activities	
Step 1 Introduction [Click here to type activities that you will direct to get students focused on and interested in the concepts and skills to be learned.]			
Step 2 Development			
Step 3			
Assessment Strategies [Click here to type how you will measure student achievement. Remember to link activities to the objectives.]			



Appendix 2 Lesson Plan Template (Blank Form)

Teacher:		School:		
Subject:	Grade:	# of students: ___ <i>Boys</i> ___ <i>Girls</i>	Date:	
Description of Students				
Focus Question:			Duration:	
Attainment Target(s):				
Lesson Objectives:				
Technology Integration Statement				
Previous knowledge and skills				
Technology Skills required e.g. manipulating mouse, taking pictures, downloading pictures				
Resources Needed				
Printed media	Computer-based media	Equipment		



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Teacher Activities	Student Activities
Step 1 Introduction	
Step 2 Development	
Step ...	
Step ...	
Step ...	
Step ...	
Assessment Strategies	