

THE INTEGRATION OF TECHNOLOGY WITH PRIMARY
AND ELEMENTARY STUDENTS

CENTRE FOR NEWFOUNDLAND STUDIES

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The Integration of Technology
with Primary and Elementary Students

by
© Jacqueline Butler

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Abstract

To partially fulfill the requirements for the degree of Master of Education in Curriculum, Teaching and Learning Studies at Memorial University, I designed and developed several resource based units that incorporated technology into the curriculum. The first phase of this project began in August 2004 and involves pre-planning and research and design. The second phase began in October 2004 with the implementation of the project and the following report.

This project involved a comprehensive review of research involving the incorporation of technology into the curriculum at the Primary and Elementary levels. The tasks then included the planning, designing and implementation of developed units of work for both levels.

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Introduction

There is no doubt that the twenty-first century Canadian student lives in a world of technology. As a society, our communication is by way of fax, telephone, email, web conferencing and instant messaging. We bank, shop and learn through the use of technology. Many students use computers as part of their daily lives and have the whole world in front of them via the Internet. Technology has influenced all of us in a multitude of ways.

Many schools saw the introduction of computers during the eighties and there has been a steady increase of technological advances ever since (Doggett, 2000; Clifford and Friesen, 2001). The earlier technology of filmstrips, 16mm films and reel-to-reel videotapes are now replaced with LCD panels, digital cameras, scanners, and other high-end computer and technological equipment all designed to supply students of today with the necessary skills so that they can engage in the twenty-first century.

According to Semali (2001) if we are to prepare students for the emerging information age, we must help them comprehend and communicate through both traditional and emerging technologies.

In a knowledge-based society, the role of all teachers should be to create and support an environment that helps students learn and grow with advances in technology. As educators, we have to ask ourselves if our schools are keeping pace with society's technological advancements. According to Barrell (2001), "This revolution has been

somewhat slow to affect teaching and learning. In many ways, classrooms look much the same as they did at the turn of the last century” (p.18). Barrell raises questions of what it will mean and take to become literate in the future and how technology can be effectively integrated into teaching and learning.

As a teacher-librarian in an elementary school responsible for technology integration, these are crucial questions. At the primary and elementary level it is often the teacher-librarian’s role to try and successfully integrate technology in to the curriculum. Over the last number of years, the profession has made significant progress in accepting this important role in the area of technology. In many schools the school library has been the first place to introduce technology. Teacher-librarians play central roles in technology planning and realization; they often supply the physical access and know-how of the tools of technology. There is a basic understanding that students need to be computer literate but there does not seem to be clear understanding in the educational system as to what this specifically means. If a student can play a couple of games in a computer lab –are they computer literate? Will basic word processing skills be sufficient for students in today’s society? Can schools even come close to meeting the demands of a digital society and keep up with technological advances and keep students current?

It is instrumental that teacher-librarians determine what works best in the schools for children. There are no clear cut easy answers as to exactly the best route. It appears

that teacher-librarians are in their own unique situation in their respective schools. What works best for one teacher-librarian and school may not be the answer for the next. Obviously there is no uniform answer to the question of where technology fits in our classrooms. It is difficult to find answers when every teacher-librarian's situation is different in terms of the actual physical time spent working in the resource centre with a variety of technologies.

Despite all the barriers, successful technology integration must find its way in to primary and elementary schools. This project is an exploratory step to improving technology integration into elementary schools. The main objective is to offer two units that can be modified for use by educators within the primary and elementary setting.

Rationale/The Problem Defined

In *Education Indicators in Canada (2003)* the results of the Pan Canadian Education Program 2003 showed that Canada's schools were among the highest in the world with the number of computers connected to the Internet. Also, on average, there were about seven students per computer in any given school. However, only one third of the 15-year olds surveyed said that they frequently used computers to support their school work. Surprisingly, twenty percent said they never used computers to help with school work.

It is acknowledged (Holunt and Gahala, 2001; Kleiman, 2000; Semali, 2001; Willms, 2002; Education Indicators in Canada, 2003) that technology must play an important role in the education and preparation of young people. The pressure is on educators to keep schools as technologically vibrant and up to date as possible. Although computers and technology are becoming more widely used in schools, there does not always appear to be a correlated increase in understanding how technology can and should be used. There is a lack of a significant number of studies that help in the understanding of the difference technology makes in the education of students and whether or not it actually increases learning. What is known is that technology does provide students with alternate means of representation. It is obviously how technology is used that determines its value in the learning process in schools (Bennett, 2003). As educators we have to ask how students are using technology. Is it helping to advance

their knowledge of the world? Are students actively engaging in their learning?

According to Clifford and Friesen (2001), technology should allow students to create and reproduce knowledge, not simply consume it. It provides students with an alternate way to represent their learning.

Advances in technology are now causing educators to take a new look at what it means to be literate in today's society. Research (Asselin, 2004; Bruce and Bishop, 2002; Gahala and Holum, 2001;) shows that being literate now involves more than the traditional reading and writing. Students need to be able to read multimedia texts, work with multiple sources, investigate, access and evaluate data. With the influx on information, students need to learn how to navigate their way through it (Brown, 2000). According to Hammett and Barrell (2002), technology should no longer be seen as an add-on to subject knowledge for the sake of technology. It should be a tool for helping to represent and create data information and new knowledge.

For years Newfoundland and Labrador schools have placed an emphasis on computer technology and ensuring that students have adequate access to bundled software and computers. In elementary schools in Newfoundland and Labrador there is no set "technology" curriculum for students. Furthermore, there appears to be very little emphasis on how technology should be integrated to achieve the desired results for students in the early grades. As a result, individual teachers are left to do what they can do or are able to do to integrate technology. The experiences of students are dependent

upon particular teachers in particular schools as well as the physical resources of that individual school. As a result, elementary schools have varying degrees of technology integration and support.

Literature Review

There has been a great deal written about the role that technology should play in our schools and the desired results of technology integration. There are varied opinions as to what technology integration should look like and even what is meant by technology. Alberta Learning's ICT Program of Studies (2004) suggests that technology integration is best learned within the context of the application. In other words, it is not best learned simply as an add-on. It continues by adding that "Technology is most importantly about thinking: communicating, inquiring, decision making and problem solving. It provides us with techniques and processes to think differently, to solve and resolve problems by using strategies that are 'out of the box,' to design new products or ideas, and to make informed defensible decisions".

Galileo Educational Network (2004) quotes Alan Kay as having this to say about the role of computers in our school:

Computers are not rescuing the school from a weak curriculum, any more than putting pianos in every classroom would rescue a flawed music program. Wonderful learning can occur without computers or even paper. But once the teachers and children are enfranchised as explorers, computers, like pianos, can serve as powerful amplifiers, extending the reach and depth of the learners.

Under the right circumstances, technology can help improve educational outcomes (Willms & Corbett, 2002). Withrow (2004,) states that "technology should respond to the natural inquisitiveness of the child" (p.69). According to Jonassen (2000), students learn with technologies when computers support knowledge construction and

exploration. He adds that computers support learning by both doing and conversing and that they are intellectual partners that support learning by reflecting.

Kleiman (2000) identifies the common goals for using technology in schools as the ability to broaden curriculum objectives, adding more problem solving, inquiry, project-based learning and collaborative work and to better prepare students for the workplace.

Effective integration of technology in assisting students in becoming information literate and critical thinkers is important in today's education system. Students come to school with technical skills. They may have used a word processor or installed and played a game. However, research (Asselin, 2004; Leu, 2002) shows that it is important for students to be able to identify important problems, gather information from multiple sources, critically evaluate the information, and then communicate its solution.

Means and Olsen (1995) found when students were involved in long-term complex projects that were supported by technology, that technology supported their efforts by adding to the student's perception that their work is authentic and important and increasing the complexity with which students can deal successfully.

Boethel and Dimock (1999), add that "students become empowered and spend more time in active constructions of knowledge when using technology. Technology provides resources for student use in problem solving, thinking and reflection. Students spend more time collaborating with other students and communicating with teachers

when developing technology projects”.

According to Asselin (2004), “Many students are well-practiced in technical skills such as word processing and managing software; however, researchers have identified intellectual skills where they need help: searching and locating information on the internet, comprehending hypermediated text and critically evaluating online information” (p.54).

Clifford and Friesen (2001) acknowledge that teachers need to be able to use technology in their professions and students need to have access to a variety of technologies at every stage of their work. For teachers, learning how to teach successfully with technology enables and requires some fundamental changes to schooling. If changes take place, the end result is impressive for students. Results can include improved achievement; higher test scores; improved student attitude, enthusiasm, and engagement; richer classroom content; and improved student retention and job placement rates.

The Role of the Learning Resource Teacher

For teacher-librarians in an elementary school, a key goal is the incorporation of technology in to resource-based learning. The Foundation for Atlantic Canada English Language Arts Curriculum (n.d) depicts a learning environment characterized by inquiry, interaction and collaboration and learning experiences supported by a wide range of resources that include technology. This document describes resource-based learning as “actively involving students, teachers and teacher-librarians in the effective use of a wide range of print, non-print and human resources”. The importance of student exposure to a wide range of resources while being given the opportunity to engage in their own problem solving or research will result in students being more likely to take responsibility for their own learning and to better retain information they gather for themselves. Exposure to a resource-based learning environment including the appropriate tools of a school library/resource centre, aids in the development of individual student learning.

The document describes how the “explosion of technology” has contributed to a new definition of literacy that includes print, visual and media literacy and any other “literacies” needed to use emerging technologies. The curriculum should include “experiences which build students’ confidence and competence in using a range of information-retrieval and information processing technologies to meet their own information needs”. Included are the abilities to use word processors, multimedia, graphic organizers and being able to choose reliable, relevant resources. At the

elementary school level, resource-based learning and the integration of technology rests primarily with the teacher-librarian.

Section 504.1E of the former Avalon East School District's Learning Resources Policy states: "The Learning Resources Program shall ensure the integration of technological skills and software into the curriculum". It is the role of the teacher-librarian to "provide staff development, activities to introduce and promote new learning resources, teaching strategies and technology and to provide guidance regarding their use". While this policy lays out the role of the teacher-librarian in technology integration, there is little discussion as to what this integration should look like.

As a teacher-librarian, the importance of technology in schools is evident. Questions including at what point technology should be introduced and how it can be best utilized for maximum benefit of students have no easy answers. According to Scheirer (2000) "Teacher-librarians have come a long way from the time when they were considered caretakers of the book collection. Now they are information providers, consultants, curriculum activists, instructional designers, instructional leaders, production specialists and most important, teachers".

Haycock (1997) describes one of the many roles of a teacher-librarian as an "administrator of technology". He maintains that technology is a useful tool for teaching and learning and that schools require improved access to information technology. Yet, he points out that there is no shortage of information in schools. The problem is that too

many schools face becoming information rich but knowledge poor unless we recognize the serious difficulties that students face in using information effectively. Haycock raises the question that if it was difficult to use print-based information, how will computer-based information be any easier? He adds that it is critical to distinguish between physical access to information, the challenging but nevertheless easiest steps in the process, and intellectual access to information, the ability of students to process and use information effectively, where we have a long history of poor achievement. He is concerned that schools are facing the prospect of the "dumbing down" of education to "download, cut and paste" unless more effective programs are designed.

According to The American Association of School Libraries (1998), the teacher-librarian is a leader in the school's use of both instructional and informational technology to enhance learning. The teacher-librarian's role should be as a technologist rather than a technician in collaborating with teachers to design experiences that focus on information literacy, authentic learning and curriculum mastery and not just on manipulating machinery. Teacher-librarians have to be knowledgeable not only with the operation of devices that deliver information but with the structure and presentation of information that enables students to become independent lifelong learners.

Scheirer (2000) asks what the role of technology is in the classroom. He contends that students can use technology very successfully if teacher-librarians and teachers make proper choices as to how and when the technology is used. Teacher-librarians need to

ask themselves whether the technology is being used to do a learning activity in a new and creative way or to do a learning activity that is possible only with the help of technology. Is it used as a tool for learning and not as technology for technology's sake?

Teacher-librarians, through professional development as well as their own efforts, are continually acquiring new computer skills in response to these technological demands. In turn they educate fellow teachers as well as students. Because of this role, the teacher-librarian is in a unique position to ensure every student in a school has a technological experience that might not be possible for them in the classroom.

A school library handbook published by Prince Edward Island's Department of Education outlines the role of an effective school library program at each grade level. It supports the belief that school library programs need to ensure that students have greater equity with regard to information technology and information literacy instruction. These programs are integrated with the school curriculum and should provide regular opportunities for teachers and teacher-librarians to collaborate and to implement resource-based learning activities where information technology and appropriate skills are taught within the context of classroom and subject programs, themes and units of study. This handbook reinforces the notion that resource-based learning is a focus in the Atlantic Provinces' curriculum for *all* public schools. The reality is that schools with a quality school library program and an effective teacher-librarian will have an advantage through the leadership and support they are able to provide for their teachers and

students.

Johnson (2000) makes some very valid suggestions as to the role teacher-librarians should play as technology leaders in their schools. The following is a summary of what Johnson views as key elements of the teacher-librarian's role in successful technology integration.

1. **Teacher-Librarians must have a healthy attitude toward technology.** Good teacher-librarians are neither technophiles nor technophobes. The teacher-librarian considers and teaches not just how to use technology, but why and under what circumstances it should be used. Johnson adds that an old adage says that when your only tool is a hammer, every problem becomes a nail. For many technologists, technology can become the solution to problems that actually require traditional or human solutions.
2. **Teacher-Librarians must have good teaching skills.** Most teacher-librarians are skilled teachers. Unlike technicians they are more likely to use good pedagogical techniques and have more developed human relations and communication skills. As teachers themselves, teacher-librarians can be understanding and empathetic when technologically related stress occurs in the classroom.
3. **Teacher-Librarians will need to understand the use of technology in the information literacy process and how it can be used to help foster higher level thinking skills.** Good research assignments even before the tidal wave of

technology rushed over the schools emphasized using information to arrive at original conclusions and supportable answers to real problems. Technology as viewed by teacher-librarians is just one more, extremely powerful tool that can be used by students completing information literacy projects.

4. **Teacher-Librarians need to be experienced skill integrators and collaborators.** “Integration” into the classroom should be the goal of every technology plan... Integration of research and information literacy projects has been a long-term goal of school library programs, and as a result many teacher-librarians have become excellent collaborators with classroom teachers, successfully strengthening the curriculum with information literacy projects. Schools that have most successfully integrated technology into their curricula are those which already had project-based units supported by a Teacher-Librarian.
5. **Teacher-Librarians should serve as models for the successful use of technology.** In many schools, the teacher-librarian was the first educator in the building to purposely use technology. The library’s automated library catalogs, circulation systems, electronic reference materials, and student accessible workstations all showed up well before classroom technologies. Teachers rightfully see teacher-librarian as the educator having the most comfort with technology as well, which in turn bolsters their own self-confidence.
6. **Teacher-Librarians can provide in-building support.** *A flexibly scheduled*

teacher-librarian is a real asset to the teacher learning to use or integrate technology. As partners, the teacher-librarians can work with the teacher in the library, lab or classroom.

7. **Teacher-Librarians need a whole school view.** In too many schools, technology is often used exclusively in the classrooms of the early adopters, and unless students have that teacher, they will not have access to a fair share of technology resources. Next to the principal, the teacher-librarians have the most inclusive view of the school and its resources. The teacher-librarians can make recommendations on where technology needs to be placed or upgraded as well as on what departments or teachers may need extra training and support in its use.
8. **Teacher-Librarians need to be concerned about the ethical use of technology.** The library profession has long viewed copyright, materials selection, and intellectual freedom as areas of important, even vital, interest to their organizations and patrons. These issues will grow in importance as the virtual world makes ethical decisions more confusing. Students will need to have the skills to self-evaluate information; understand online copyright laws and intellectual property issues; and issues of safety and appropriate use of resources. Classroom teachers assisted by knowledgeable teacher-librarians need to make ethics instruction a part of every activity that uses technology.
9. **Teacher-Librarians can provide the needed leadership in buildings for**

technology integration. Teacher-librarians are in a unique position to plan, direct, and lead technology efforts by keeping current with educational trends and new technologies. As administrators are increasingly being called on to “restructure” their schools to make them higher performing, they will be looking for allied change agents to help them. The teacher-librarians can be those allies.

Johnson’s research would lead to the question of whether a teacher-librarian that concentrates solely on technology in their school creating stronger academic learners or better preparing those students than a teacher-librarian who does little or no technology? It would appear evident that a “middle of the road” approach might be best, however that might not always be practical in every school environment. Of utmost importance is the fact that teacher-librarians should be at the forefront in the decision making process of what works best, given their individual circumstances.

Eisenberg and Johnson (1999) identify three questions that teacher-librarians or even educators in general need to ask about technology. The first questions whether the money spent on technology is being spent wisely; the second asks what the best uses are for a finite number of computers and limited amount of related technologies in the schools? The third question is whether technology is making a difference in student achievement.

These are tough questions with perhaps no clear-cut, easy answers. According to

Johnson and Eisenberg, the knowledge, vision and leadership of the teacher-librarian is essential in technology integration. They have to be at the forefront in teaching integrated information skills. Teaching technology for the sake of technology is obviously not the answer and that separate computer classes where skills are taught in isolation from the rest of the curriculum does not help students apply these skills in any meaningful way. Effective integration of information skills must directly relate to the content area curriculum and to classroom assignment, and the skills themselves need to be tied together in a logical and systematic information process model. Schools seeking to move from isolated computer skills instruction will need to focus on both of these requirements. Teacher-librarians can play a significant role in this transition. Teacher-librarians and classroom teachers need to work together to develop units and lessons that will include computer skills.

Project Design

The framework of the project consists of two components. One unit is designed for use at the primary level and the other is appropriate for the elementary level. At each level the unit is designed to be used in a resource based environment in project based learning. Much of the unit can be modified to be used as a stand alone for individual teachers in their classroom.

The project was saved on a CD which will enable teachers to have copies and then be able to modify the activities to meet their individual requirements. The final project will be presented using an electronic format together with a written component.

The reason for choosing this project was to address the need for technology incorporation in the elementary school setting. This project has drawn on current research to investigate what constitutes the successful integration of technology at both the primary and elementary levels. Eisenberg (2003) acknowledges that there is increasing recognition that the end result of computer literacy is to use technology as a tool for organization, communication, research, and problem solving. The key focus should not simply be in knowing how to operate a computer. There is a similar consensus in many contemporary investigations in the role of technology and this research will provide the basic foundation of this project. Research is showing that technology is much more than a tool. It is often an environment into which young people move.

The intentions of these resource-based units are to broaden the literacy abilities of

students through the incorporation of several technologies. It will encompass a broad range of Language Arts outcomes from the Speaking and Listening, Reading and Viewing, as well as the Writing and Other Ways of Representing components of the curriculum guides. While there is no “technology” curriculum guide as such, it is mandated that technology be incorporated into the curriculum and that students be well versed in other ways of representing their knowledge and understanding. Both units also introduce students to a graphic organizer called Kidspiration. According to Jonassen (2000, p.15), “Word processing, computer-assisted design (CAD) tools, graphics packages, and outlining programs are essential productivity tools for classrooms and should be used whenever they can facilitate student work”.

The Grade Three unit also meets both Science and Health outcomes as students explore topics of energy conservation in exploring ways that energy can be saved both at home and school and through encouraging students to reflect on healthy eating. There is also an online web quest designed specifically for this unit. A web quest can keep students’ online activities focused and directed. It is a useful tool to facilitate learning without allowing young children free access to the Internet. McKenzie (1999, p.17) adds that “Models like Webquest help direct student efforts around organizing questions, tasks and concepts so that time is spent productively and students wrestle with significant issues”. This is indeed an important consideration with primary school aged children.

The elementary unit is intended for use in a grade five setting, but could easily be

used at any elementary grade level. This unit is designed around the traditional literature circle format with technology components and activities woven throughout.

Curriculum Connections

According to the *Foundation for the Atlantic Canada Technology Education Curriculum Guide* (n.d., p.v), “technology education for Atlantic Canada fosters the development of all learners as technologically literate and capable citizens who can develop, implement and communicate practical, innovative, and responsible technological solutions”.

This guide further states several key stage curriculum outcomes that students should be familiar with by the end of Grade Three. Included is the ability to communicate ideas and information about technological solutions through appropriate technical means as well as the ability to articulate problems to be solved through technological means. This Media Awareness unit through use of both the Internet and appropriate computer software creates the opportunity for students to both communicate and problem solve through technology.

The Atlantic Canada English Language Arts Curriculum Guide K-3 states:

Pervasive, ongoing changes in society—for example, rapidly expanding use of technologies—require a corresponding shift in learning opportunities in order for students to develop relevant knowledge, skills, strategies, processes, and attitudes that will enable them to function well as individuals, citizens, workers, and learners. To function productively and participate fully in our increasingly sophisticated technological, information-based society, citizens will need broad literacy abilities, and they will need to use these abilities with flexibility.

This guide outlines that “The curriculum anticipates that what it means to be literate will continue to change as visual and electronic media become more and more

dominant as forms of expression and communication. To participate fully in today's society and function competently in the workplace students need to read and use a range of texts.

The curriculum at all levels extends beyond the traditional concept of literacy to encompass media and information literacies, offering students multiple pathways to learning through engagement with a wide range of verbal, visual, and technological media.”

The *English Language Arts Grades 4-6 Curriculum Guide* (1998) outlines the curriculum to be offered within Newfoundland and Labrador elementary schools. This curriculum guide illustrates the importance of representation in non-traditional methods. “Students will be able to respond critically to a range of texts, applying their understanding of language, form and genre. Students will be able to use a range of strategies to develop effective writing and other ways of representing and to enhance their clarity, precision, and effectiveness.”

This document also demonstrates the importance of integrating technology into the curriculum in order for students to become information literate. According to this guide, students will be expected to use technology with increasing proficiency as they progress through the elementary grades. In elementary schools in the province of Newfoundland and Labrador, there is no “technology teacher”. In many cases the responsibility of technology integration rests primarily with the teacher-librarian.

Conclusion

It is important to recognize computers themselves or technologies in general are not meant to replace other methods of learning, but add to the tools available to students to explore, create, communicate and represent. When used appropriately by skilled teachers and engaged students, technology can support and extend learning in valuable ways and can increase educational opportunities. The key is finding the balance with the unique capabilities offered by technology.

In order to be successful, technology integration must not be seen as an add-on or extra chore for teachers and it must not be used simply for the sake of using it. These units were developed to provide students with the opportunity to explore, create communicate and represent while making connections with the primary and elementary curriculum.

Most importantly the units connect the theoretical work of researchers such as McKenzie (1999), Barrell (2001), and Clifford and Friesen (2001) to the curriculum by establishing that technology integration must become an integral part of the education of primary and elementary students in our province.

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Grade Three Resource Based Unit

“Today's definition of literacy is more than reading and writing. In order to be functionally literate in our media-saturated world, children and young people—in fact, all of us—have to be able to read the messages that daily inform us, entertain us and sell to us. As the Internet becomes a fact of life, the critical thinking skills that help young people navigate through traditional media are even more important.”

Media Awareness Network

The unit is designed to create an awareness of the role that media plays in children's lives.

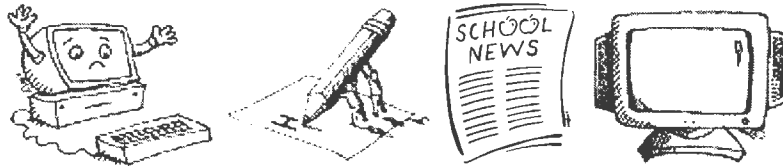
The resource based unit is intended to be completed in centres, over a period of eight sessions each of approximately one and one-half hours. Each class should be split in to six equal groups who will rotate on a daily basis through each centre.

Each group will have a student appointed to read the instruction card each day before any activities begin.

Grade Three Media Mix

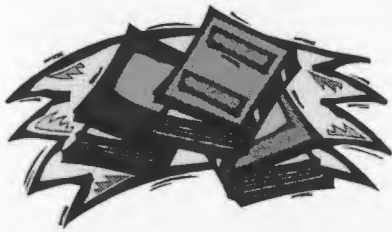


The Message is...



Name: _____

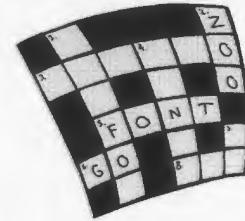
Teacher:



And the Message is... Centre 1 - AD Smart

Magazines are a great source of information. Inside the covers you can find:

- articles (stories) about a wide variety of topics, ranging from nonfiction (true information) to fiction (make believe).
- current information, since most magazines are published monthly.
- puzzles
- comics
- trivia
- and much more



At this centre you will read an article titled "AD Smart" from the magazine "OWL" (November 2003).

Activities 1, 2 and 3: Magazine Article - "AD Smart"

Your job is to read the article and then carefully answer comprehension questions.

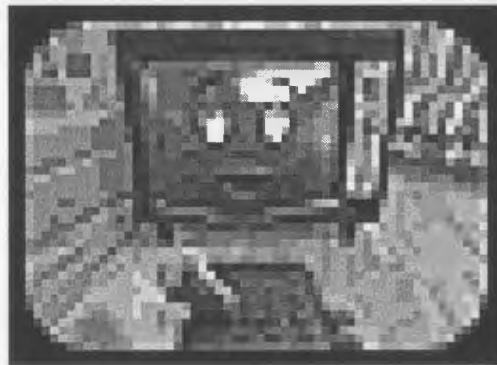
- Open your booklet to centre one and read through the questions in activities 1, 2 and 3. It is important that you read all of these questions before reading the article. (Have someone in your group read these questions out loud.)
- Read through the article carefully. (Do this as a group. Perhaps each person can take a turn reading a paragraph or two.)
- Once you have finished reading the article, begin answering the questions. You can refer back to the article as many times as you need to help you complete all questions.

Activity 4: Magazine Article - AD Smart - *It's time to be creative.*

Use the advertising techniques from the article to design a magazine ad for a new product for kids 8-10 years old. (You have to create a brand new product that you would like to sell.)

And the Message is...
Centre 2 - Smart As You

People are watching more and more television and spending more time on the computer. However, you need to realize that what you are watching has been constructed and a lot of thought has gone into making it. Very talented people have worked very hard making you, as a viewer, believe what you are watching. You need to think about what you see, hear and read.



Activity 1:

- Watch the commercial titled, "Smart As You".
- After watching the commercial answer the questions in your booklet.

Activity 2:

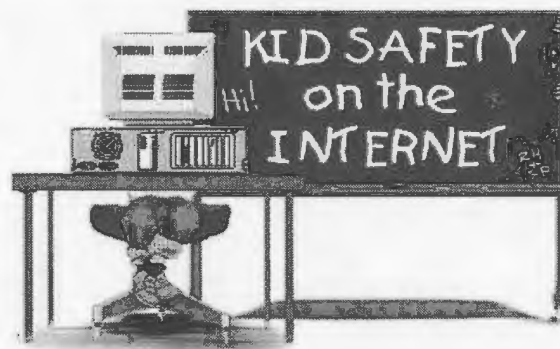
- ➔ It's your turn to show the fun things you can do instead of watching TV.
- ➔ Look at the list that your group compiled. Choose at least four activities that you would like to do instead of watching TV.
- ➔ You will use the PAINT program to design a picture of your favourite activities,.

Follow the directions on the page titled "Instructions for PAINT". This can be found at your centre

And the Message is...

Centre 3 - Internet Safety

Whatever your age, the Internet is a great place to hang out. It's not only fun, but also it lets you keep in touch with friends and family and provides an enormous amount of information. There are lots of great educational sites as well as places to keep up with your favorite sports, hobbies, music, and much more.



Cyberspace is like a big city. There are libraries, universities, museums, places to have fun, and plenty of opportunities to meet wonderful people from all walks of life. It is important to know how to find these wonderful places on the internet. Like any community, there are also some people and areas that you should stay away from and others that you should approach only with caution.

Instructions:

- At this centre you are going to learn about Internet safety through a web quest designed especially for you.
- From our **School Web Page** click on students button on the left of the page. When the next page opens click on "Grade Three Media".
- You will then begin an adventure and surf through cyberspace!
- Read through the information carefully and follow instructions.
- Record the information in your booklet as you go.

The Process:

Here are the steps that you and your group will follow:

Safe Surfing Rules

1. You will be looking at the web sites listed below under the heading "Safe Surfing Rules". Click on each link to visit that web site and then click on the "back" button up top to bring you back here.
2. As you visit each site about Internet safety, make a list of five smart, safety surfing rules that you find.

Safe Surfing Search Engines

1. Now it is time to put on your super safe surfing reporter's hat! You will to use some of the safe search engines that are out there just for kids and discover cool facts about ways that we can conserve energy.
2. Click on the links under the heading "Safe Surf Engines" and type in "energy conservation" or you can try typing "how to save energy". Here you will safely search for fascinating ideas about ways that we can save energy.
3. Use your reporter's notebook to write your findings.

Resources:


When you can click on words or pictures on a web page and it brings you to another page, they are called "links". Here are the web sites you will visit by clicking on the links:

Safe Surfing Rules:

Kids Rules for Online Safety	Rules in Cyberspace
Be Net Smart	Get Your Web License

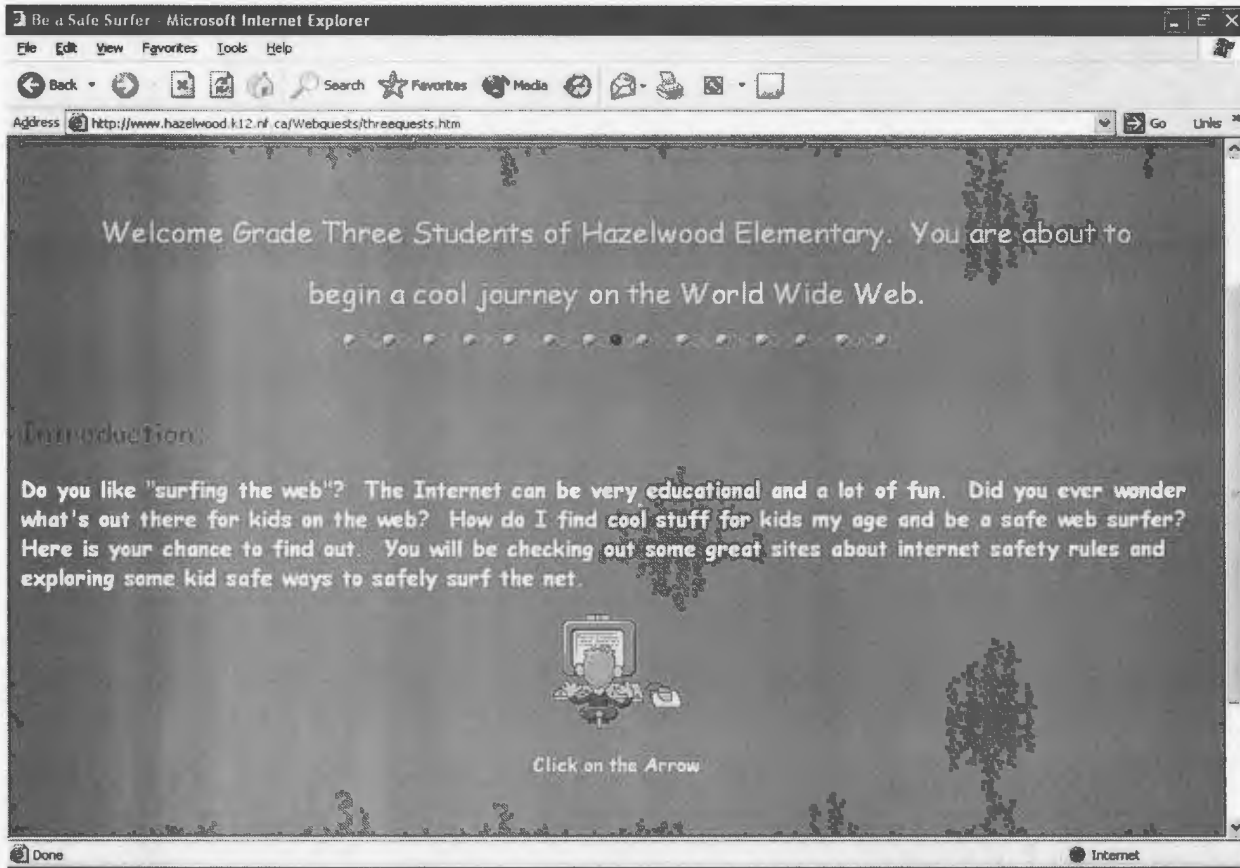
Safe Search Engines:

Below are links to kid safe search engines.

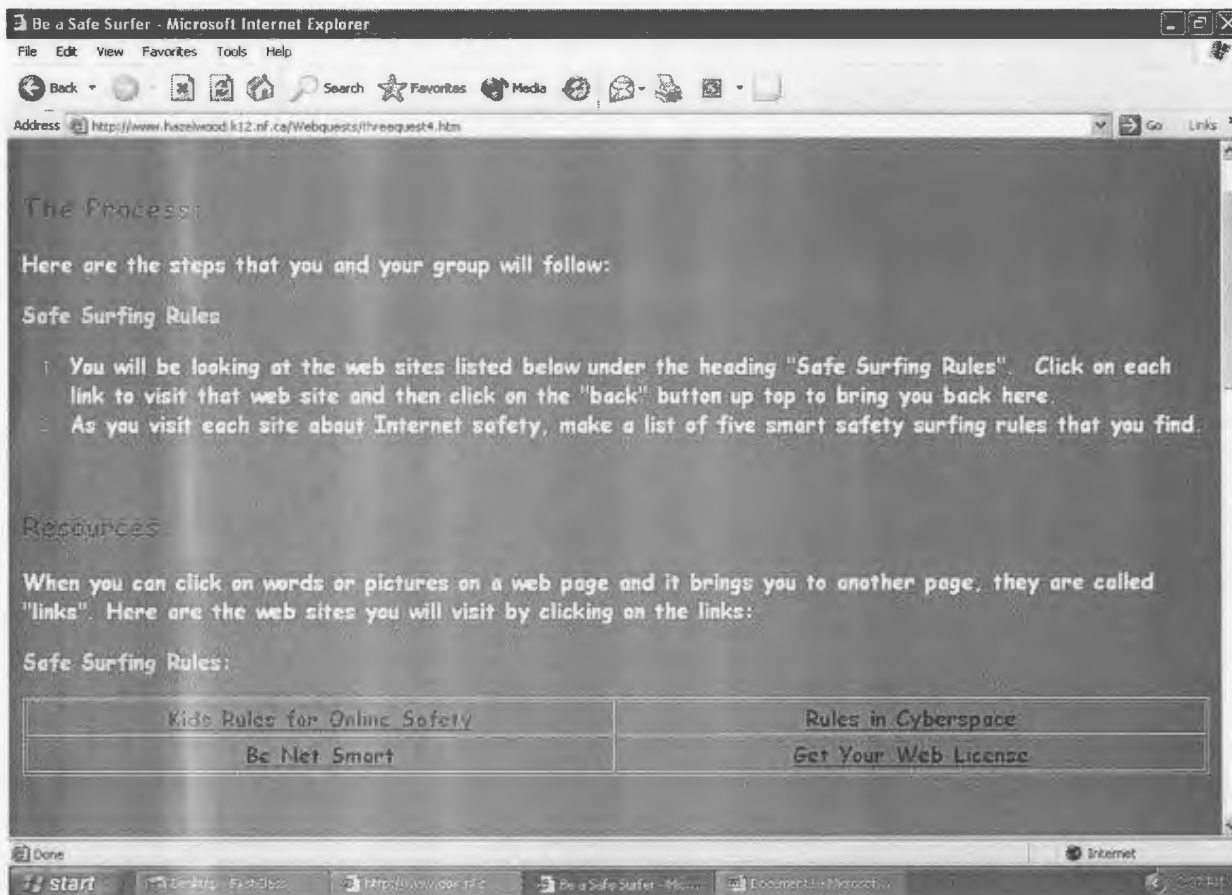
		
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Web Quest Grade Three Media Unit

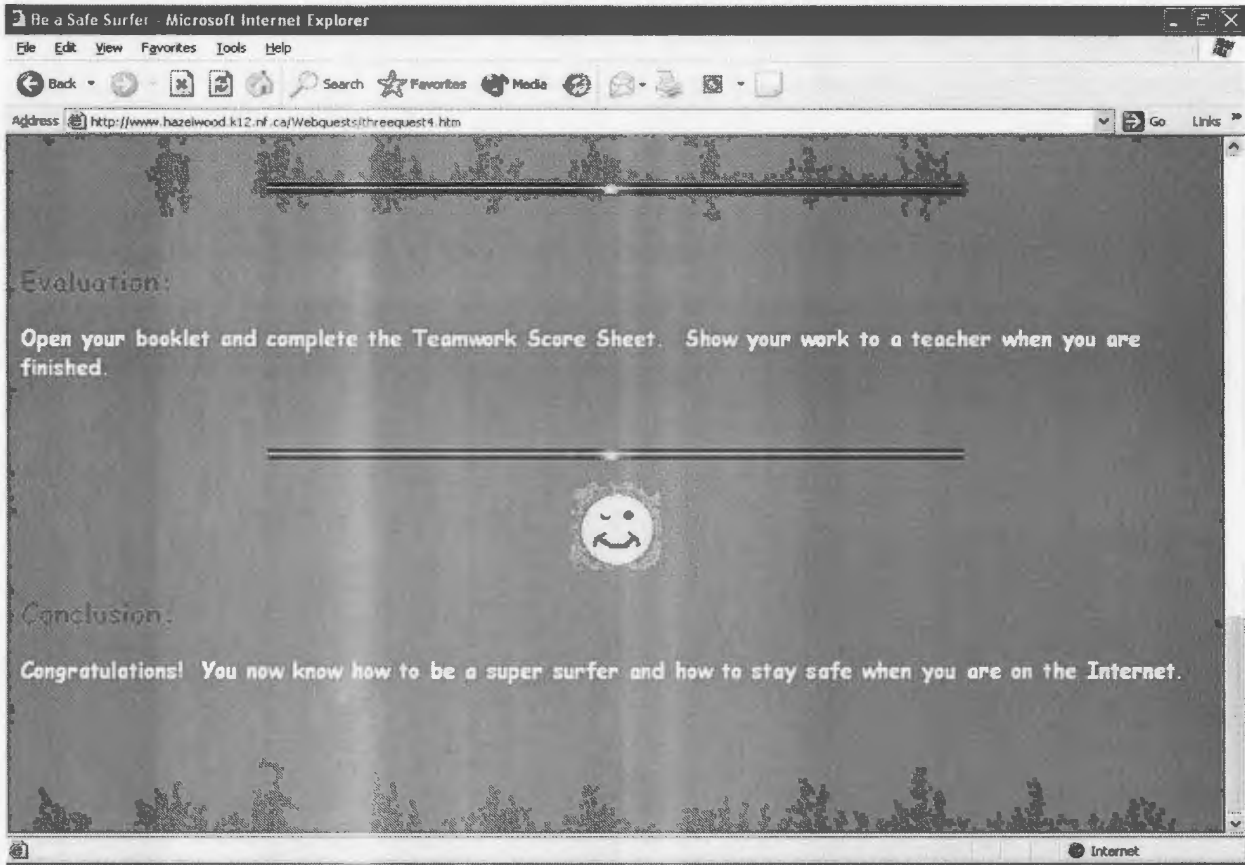
<http://www.hazelwood.k12.nf.ca/Webquests/threequests.htm>







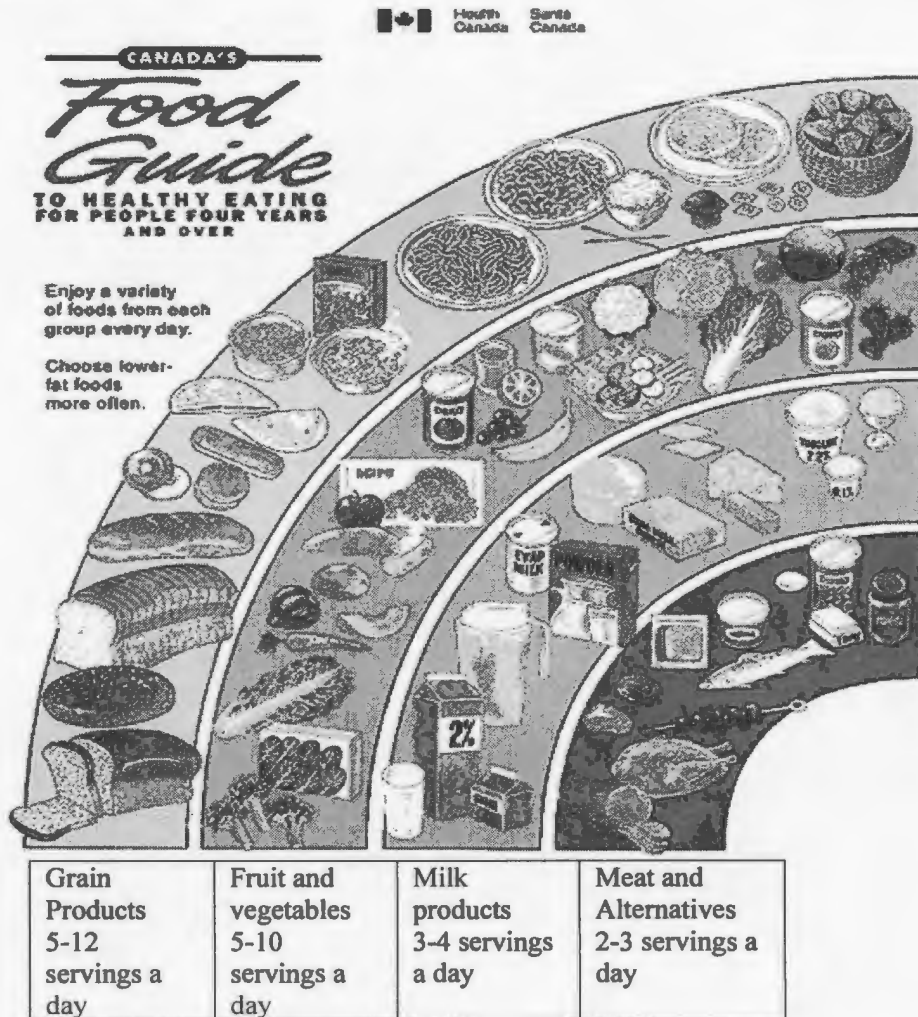




And the Message is...

Centre 4 - Food Advertising Techniques

A balanced diet is made up of a variety of foods from the categories in Canada's Food Guide.



Where do snack foods fit into our diets? Why is too much junk food not good for us?

Junk food cannot be found on the Canada Food Guide but if you eat a balanced diet, a few snacks are all right. Junk foods are not good for us

because they do not provide any real nourishment. But they do make us less hungry for healthier foods and many of them are full of salt, sugar and fat which can lead to health problems.

Activity 1:

- How well do you eat? Are you making healthy choices?
- In your booklet, write down the name of one of your favorite foods.
- *The Centre for Science in the Public Interest* has created a list of 10 great and 10 not-so-great foods for kids.
- In your booklet, read through the list on these foods and categorize the foods on the chart.
- Where does your favorite food fit in? Why?

→ When the group is finished have a teacher correct your work.

Activity 2:

Food companies use many methods to attract kids to their products. Some companies have created characters that are identified with their product. For Example:



When we see

we think of



Another way that companies attract kids to their product is by their catchy phrases called jingles.

For example:

When we hear **Betcha Can't Eat Just One!** we think of



- Match the products at this center with their character or jingle.
- When your group has completed this activity, check with your teacher.
- Now, answer the question in your booklet under activity two.

Activity 3:

It is now time to be inventive. Use the materials at this center to create your very own character and jingle for your favourite food as listed in activity one. When you are finished, take a picture of your creation using the digital camera. Ask your teacher to help you out.

The Message is ...

Centre 5 - Messages in Picture Books

The first means of written communication was pictures. These were cave drawings. Pictures have always been used to get attention and carry a message.

Pictures can make your information easier to understand. They can help people make sense of words. Pictures can also help people remember what your information is about.

Words and pictures together help get a message across. Authors and illustrators work together to make sure that the message in the picture is the same as the message in the story.



Activity 1:

- Have the reader in your group read the story "Rosie's Walk". This story is found on a sheet of paper at your center.
- Ask your teacher for the book "Rosie's Walk". Now, listen to the story while following along with the illustrations.
- Answer the first two questions found in your booklet.

Activity 2:

- ➔ Turn to the first page in the picture book. It is now your turn to write the story from the other animal's point of view. Write your story in your booklet in the space provided.
- ➔ Using the paper provided at this center, rewrite each page of your new storybook and create new illustrations to tell your story.



The Message is ...
Centre 6 - Messages in Poetry

Poetry is a popular way to create meaning and sending messages. They can help people make sense of words. Poetry can also make words or sentences easy to remember.

Activity 1:

→ A **couplet** is a two-line poem that rhymes.

Nature puts on little shows
Every time it rains or snows.

→ Couplets can also be grouped together to make longer poems.



PUMPKINS ON GUARD

Look at all the pumpkin faces
Lighting up so many places.
On the porch and in the yard,
Pumpkin faces standing guard.
Looking friendly, looking mean,
With a smile or with a scream.
Orange faces burning bright
In the cool October night.

- Read the couplet Halloween poems at the center.

Activity 2:

- Listen to the story, "Halloween is" by Gail Gibbons and think about some ideas of your own for a Halloween poem.

Activity 3:

Graphic Organizers are tools used to organize information and thoughts for understanding, remembering, or writing. *Kidspiration* is a computer software program that allows you to organize your thoughts using pictures and words. You will be using this program to brainstorm your ideas to create a Halloween poem titled, "Halloween is..."



The instructions for this activity are next to the computers in the computer lab.

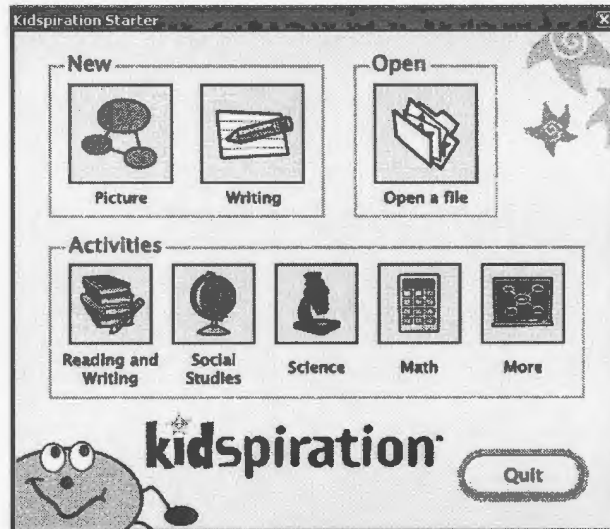
The Message is ...
Centre 6 - Messages in Poetry

☐

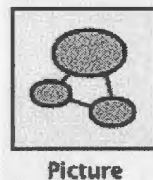
Check with your teacher when you have finished all three activities

How to use *Kidspiration*

1. Log onto the computer.
2. Open *Kidspiration*.
3. You will see the following screen.



4. On this screen use your mouse to click on the picture button.



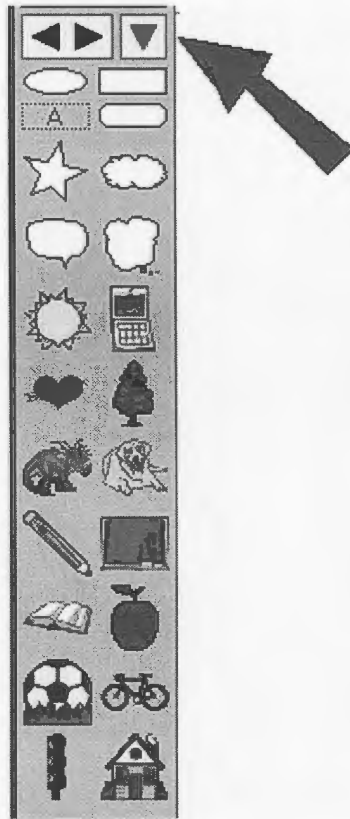
5. You will now see the following page.



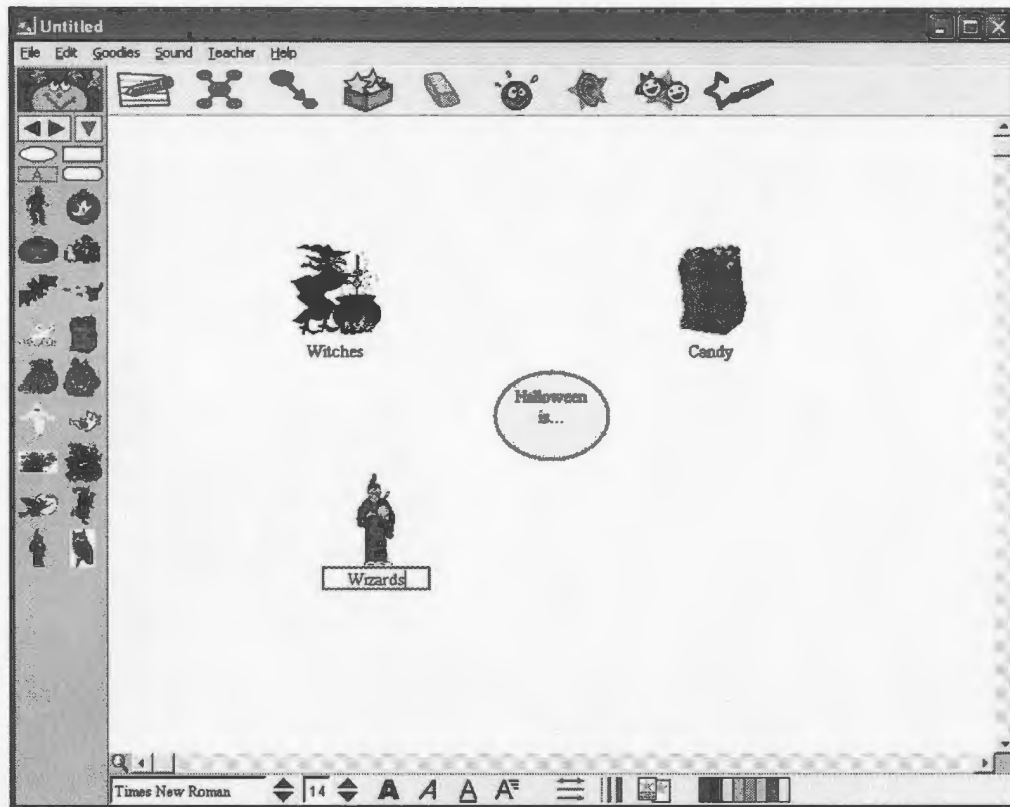
6. From this page you will create your graphic organizer (web) for your poem. The first thing you have to do is type in the title of your poem. This goes into the middle circle (now titled *main idea*). Click on the main idea circle and type in the name of your poem - Halloween is...



7. Next you have to find pictures of Halloween. There is a library of pictures. To access them click on the red arrow on the left of your screen. A list of all of the picture libraries will appear. Scroll down until you see Halloween and click on one of the Halloween libraries with your mouse.



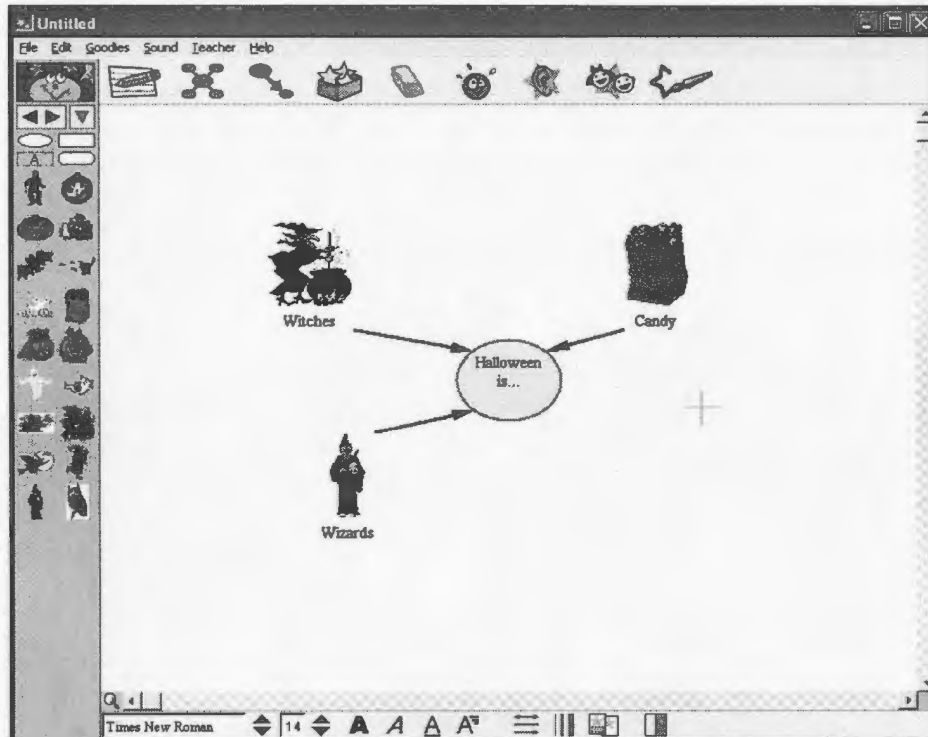
8. Halloween pictures will now appear on the left hand side of your screen. To get these pictures on your working area click on the picture you want with your mouse and drag the picture over to the page. You can place the picture anywhere you want on the white page. When you have the picture placed, double click on it and type in a word that reminds you of Halloween.



9. To join your pictures to the web you must use the link symbols button.



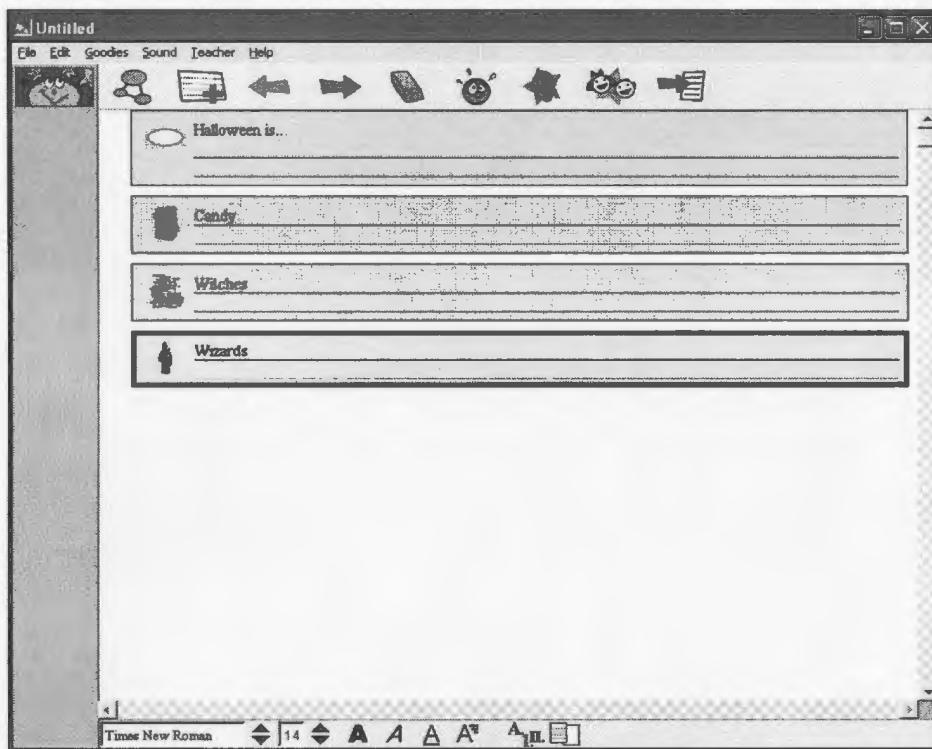
10. To do this you need to first click on your picture and then click on the link symbols button and then line it up with the center circle (Halloween is...) and click on your mouse.



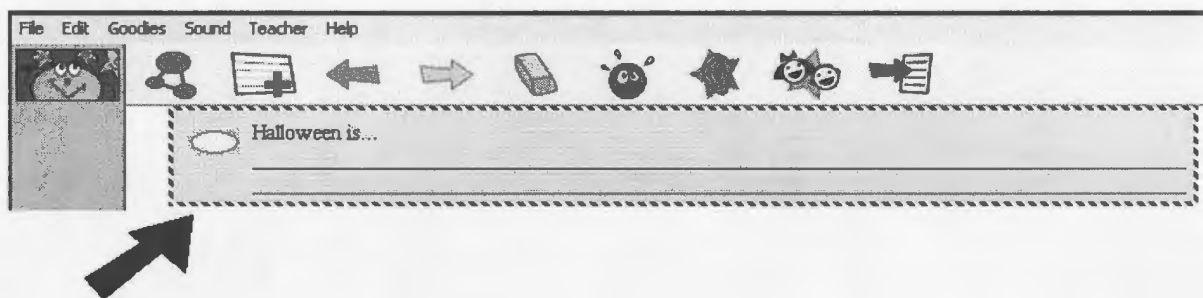
11. When you have your five Halloween pictures and words created into a web you are ready to write your poem. To get to the screen where you can type in your couplets click on the *Go To Writing* button.



12. You will see a screen similar to this:




13. The first thing you want to do is put your name in as the author. To do this click on the box that says, *Halloween is*, and on the second line type your name.



14. Write your couplets in each of the boxes. Use the word that reminded you of Halloween in each poem. It can be used at the beginning, the end, or in the middle.



 Candy



 Witches



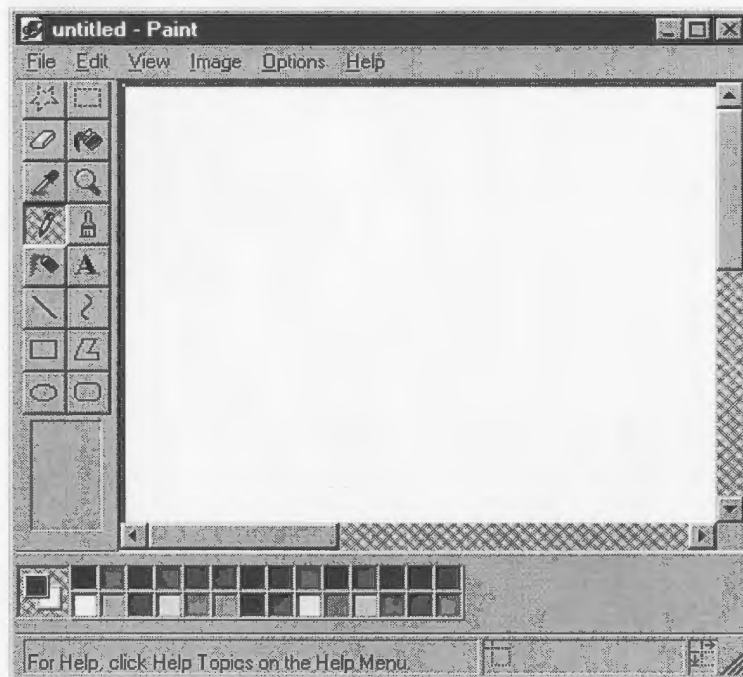
 Wizards

15. When you have your poem finished save your work. (Ask your teacher for help!)

Instructions for PAINT

















To Open Program:

- To open program click on the **START** menu, then **Programs**, then **Accessories** and finally **PAINT**
- You will see a screen similar to the following.



- In this program you can draw pictures and print text. You will use the tool bar on the left of the screen for this.

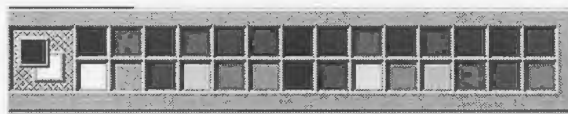
- Some of the tools you can use are:

Irregular Selection Tool			Regular Selection Tool
Eraser Tool			Bucket Tool
Eyedropper Tool			Zoom Tool
Pencil Tool			Brush Tool
Airbrush Tool			Text Tool
Line Tool			Curve Tool
Rectangle Tool			Polygon Tool
Ellipse Tool			Rounded Rectangle Tool

- **Pencil Tool**: this is used to draw simple lines by guiding it with your mouse.
- **Paint Brush Tool**: This is used similar to the pencil but the shape and size of the Paint Brush can be changed. You can use square, round, and slanted shaped brushes, of various sizes. It applies color evenly.
- **Air Brush Tool**: It applies color gradually. The color can be applied in three different sizes.
- **Bucket Tool**: It applies colour to a picture or object with one click of your mouse.
- **Text Tool**: This is used to print text.



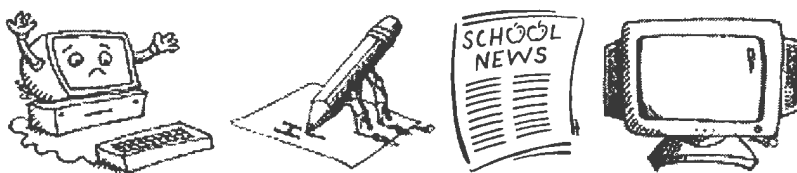
→ You can change the colour of the lines with the colour palette. You can also use these colours for filling-in or colouring your pictures.



Grade Three Media Mix



The Message is...



Name: _____

Teacher: _____

And the Message is...
Centre 1 - AD Smart

Activity 1: Magazine Article - *AD Smart*

Using the text, circle what the underlined words mean.

1. "From skater shoes to cell phones, ads use fun illustrations and animation to appeal to kids."

a) turn off
b) upset
c) sadden
d) be of interest

2. "It's no accident those car companies are featuring cartoon characters in their ads."

a) not using
b) including
c) changing
d) drawing

3. Advertisers keep coming up with new ways to promote their products without making it obvious that's what they're doing."

a) make you want to buy
b) break
c) bring down
d) not sell

4. "Tune in to Saturday morning cartoons to see toys starring in their own shows. It's a great way to make characters more popular and increase sales."
- a) reduce
 - b) shrink
 - c) raise
 - d) cut

Activity 2: Magazine Article - *AD Smart*

Answer the following questions in complete sentences.

1. Why do companies spend so much money on advertising? Use two examples from the text to support your answer.

2. Many companies create ads that are of interest to children. Why? Back up your answer using the text.

Activity 3: Magazine Article - *AD Smart*

Fill in the following chart.

1. In the article there were 10 techniques advertisers use to sell their product to you. In the chart below record the 10 techniques and explain why you think they are used.

[illegible]

Activity 4: Magazine Article - AD Smart - *It's time to be creative.*

Using the techniques from the article, you are to design a magazine ad for a **new product** for kids 8-10 years old.

1. What will your new product be?

2. In the box below plan your ad. This is just a rough copy so there is no need to use colour, etc. You just need to plan out where everything is going to be placed.

3. Using the materials at this centre create a copy of your ad.
Remember you would like it to be something that will make people want to buy it.

And the Message is...
Centre 2 - Smart As You

Activity 1:

→ Watch the commercial titled "Smart As You" and then answer the following questions.

1. What were the five smart messages of the television?

2. Like the television in the commercial there are many things about television that are not real. Fill in the chart below with the names (types) of two programs you would consider real and two programs make believe.

The Real Thing	Make Believe

Activity 2:

Did you know that many children your age spend more time watching TV than they spend at school, playing sports or talking to their parents!

1. One of the smart messages in the commercial was "Do Something Else". In your group make a list of some fun activities that you could do instead of watching TV. Try and think of some activities you could do with your family, with your friends and even by yourself. (Record your group's list on the chart paper provided.)
2. Now it is time to get creative! You will use the computer program MSPAINT to design a picture to show the fun activities that you can do instead of watching TV.

And the Message is...
Centre 3 - Internet Safety

My Internet Safety Rules

1.

2.

3.

4.

5.





Reporter's Notebook



Ways to Conserve Energy	Illustration

Teamwork Score Sheet



Circle) Yes or No.

I helped my group members.	YES	NO
I listened to my group's ideas.	YES	NO
I shared my ideas with my group.	YES	NO
I did my best.	YES	NO

And the Message is...

Centre 4 - Food Advertising Techniques

Activity 1:

1. One of my favorite foods is _____.

2. 10 Great and 10 Not-so-Great Kids Foods

We've mixed them all up to see if you can put these foods under the right headings!

Skinless Chicken Breasts & Drumsticks	Whole-grain, Low-sugar Cereals
Whole Milk	Hot Dogs
Seasoned, air-popped popcorn	Soft Drinks
Chocolate Bars	Cheesy, Pepperoni Pizza
Skim or 1% milk	Fresh Fruit and Veggies
Hamburgers	Bologna
Extra-lean Ground beef or Veggie	French Fries
Burgers	American Cheese (Like cheese slices)
Low fat hot dogs	Fat free corn or Potato chips
Ice cream	Non-fat Ice Cream or Frozen yogurt
Whole wheat or Animal crackers	

10 Not-So-Great Kids' Foods	10 Great Kids' Foods
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.
9.	9.
10.	10.

3. In what column would your favorite food fall under?



STOP and check with your teacher.

Activity 2:

As a group match the products with their characters or jingles.



STOP and check with your teacher.

Why might companies create characters or jingles to try and sell their products?

Activity 3:

Using the materials at this center, create your own character and jingle for your favourite food as listed in activity one. When you are finished take a picture of your creation using the digital camera. Ask your teacher to help you out.

And the Message is...
Centre 5 - Messages in Picture Books

Activity 1:

Read "Rosie's Walk" by first reading the words of the story alone. Then read the story using the storybook and answer the following questions.

3. What surprised you most about the story when you read the book with the illustrations?

4. Do you think that Rosie knew that she was being followed? Why or why not? Look back at the pictures for clues to help explain your answer.

Activity 2:

Pat Hutchings is both author and illustrator of "Rosie's Walk". She has told the story from Rosie's point of view by telling us what Rosie did. There is another animal who might have a story to tell in this book!

2. Start at the beginning of the book and look at the illustrations one page at a time. Now it is time to become a world famous author and tell the story of "you know who".

Page 1.

Page 2.

Page 3.

Page 4.

Page 5.

Page 6.

Page 7.

Page 8.

Page 9.

Page 10.

Page 11.

Page 12.

Page 13.

Page 14.

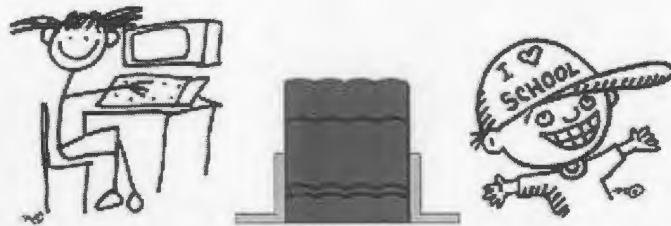
2. If you were the illustrator of this new book, would your pictures look different from those in the actual book? Create your own illustrations for your new story. Rewrite your story and draw your illustrations on the paper provided at this center.

The Message is ...
Centre 6 - Messages in Poetry

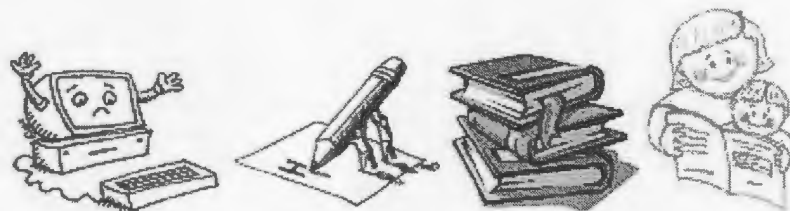
☐

Check with your teacher when you have finished all three activities

Grade Five Literature Study



All About our Novel



The Grade Five Project was completed as a resource based unit in cooperation with classroom teachers.

Language Arts, Technology and the Arts were integrated to create a project that encompassed the traditional concept of literacy with information literacy. Students were given the opportunity to work in groups to complete traditional literature circle activities. A literature circle is a student centered reading activity for a group of 4-6 students. Each student in the group is assigned a role which helps guide the group in a discussion of their novel. Literature Circles provide an opportunity for students to have control over their learning and to share their ideas and understanding of the novel they are studying.

This unit incorporated activities that involve technology into the traditional literature circle. In this instance, students researched the author of the novel their group is studying and used a graphic organizer to create character sketches of a character from their book. Students were then encouraged to use artistic expression to create their own representation of their novel. All students were introduced to Front Page Express and given the opportunity to create both individual and group web pages to display their projects.

This unit was set up to be completed over approximately nine 90 minute classes in the resource centre and computer lab. Students are given the opportunity to choose their novel and be assigned to a group at least one week before the projects commence.

On days 2 -7 students one-half of the students worked in the computer lab, while the others complete literature circle activities with their classroom teacher. After 45

minutes students will switch tasks. Days eight and nine allowed students the time to finish and refine any aspects of their project.

The following Language Arts Outcomes are focused upon throughout this unit:

2.1 contribute to and respond constructively in conversation, small-group, and whole-group discussion, recognizing their roles and responsibilities as speakers and listeners.

4.1 select, independently, texts appropriate to their interests and learning needs.

4.2 read widely and experience a variety of children's literature with an emphasis in genre and authors.

4.5 describe and discuss their own processes and strategies in reading and viewing.

5.1 answer, with decreasing assistance, their own questions and those of others by selecting relevant information from a variety of texts.

- respond to personal, group, and instructional needs for information through accessing a variety of texts.

- demonstrate an understanding of how classification systems and basic reference materials are used to facilitate research.

- use a range of reference texts and a database or an electronic search to aid in the selection of texts.

- increase their abilities to access and assess information in response to their own and others questions.

6.1 describe, share, and discuss their personal reactions to a range of texts across genres, topics, and subjects.

6.2 support their opinions about texts and features of types of texts, and the work of authors and illustrators.

10.3 use technology with increasing proficiency to create, revise, edit, and publish texts.

Day 1

Students were given the opportunity to use the internet to research the author of the novel they are studying. In this case, students were under the direct supervision of both the classroom teacher and the teacher-librarian in using Google as a search engine. Students were reminded of internet safety rules and etiquette before the start of this session.

The Author Study question sheet is given to guide them in their search for information. Students are then given the opportunity within their group to record their information on chart paper in paragraph form.

Day 2 & Day 3

Students were introduced to the program Front Page Express and taught the basics of web page design. They used a Front page Express manual designed specifically for this unit. They then designed and completed a web page to display their author research.

Day 4

Students were given the opportunity to use Microsoft Word, Paint or a traditional paper and pencil method to design their own representation of a movie poster or book jacket for their novel. Students were given responsibility within their own group to choose a medium of their choice for representation.

Day 5

Students used the software program Kidspiration to create both a character sketch and a description of an event from their novel. Students were given a manual designed specifically for this activity and encouraged to work within their group to explore, discover and understand the software program.

Day 6 & 7

Students were encouraged to keep a running record of the events of their novel throughout their reading by using the Book report guide supplied to them at the start of this unit. Students then used Front page Express to write a report on their novel.

Author Study

Find answers to as many of these questions as you can.

1. Where and when was the author born?
2. What do you know about the author's early life? Include information about family members, school life and any other interesting facts.
3. What do you know about the author's life experiences? This may include places lived, likes and dislikes, pets, and leisure time activities.
4. What books has the author written?

5. Has the author received any special awards or honours?

6. What else did you learn about the author?

Book Report

- Title of Book _____
- Author _____
- Illustrator _____

Setting

Main Characters: Keep a record of the main characters in the space below. Give a brief description of each character.

1. _____
2. _____
3. _____
4. _____

Summary: Write a summary about the story.

Did you like the book? Why or Why not?

Use the information you have collected to write a report about your book in well-developed paragraphs

Creating a Web Page with Front Page Express

To Start the Program

- Find the FrontPage Express icon on your desktop and double-click



To Create a Title

- Click on the Center Button
- Click the rectangle that says Normal and choose a heading
- Type the name of your page



How to Edit Text on Your Web Page

Type the information you want included on this page.

When you have finished typing the paragraph, we will format it.

To Change the Font

- Highlight the paragraph and choose a new font by clicking on the second rectangle that currently says Times New Roman

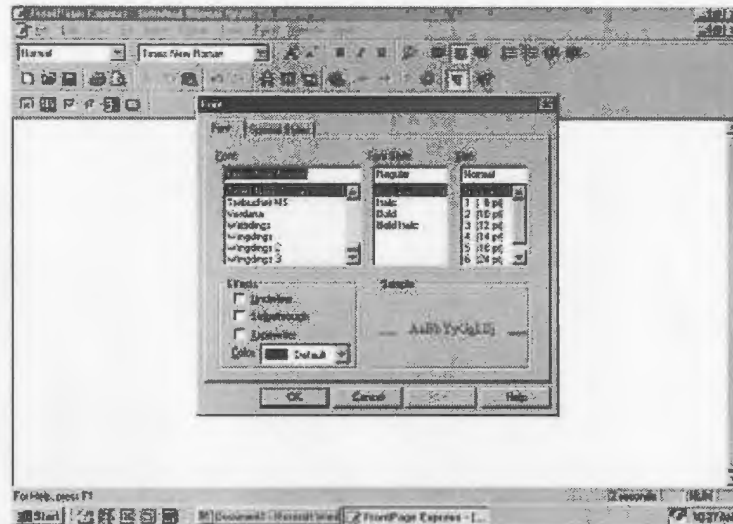
To Change the colour of the Font

- Highlight the paragraph
- Find the button which has an A and choose your colour

Changing the size of the font

- Highlight the paragraph
- Find the button which has an A and arrow pointing up and watch the font get bigger.
- Click the button with an A and an arrow pointing down, the words will get smaller

You can also choose Format then Font from the menu bar and make your changes.



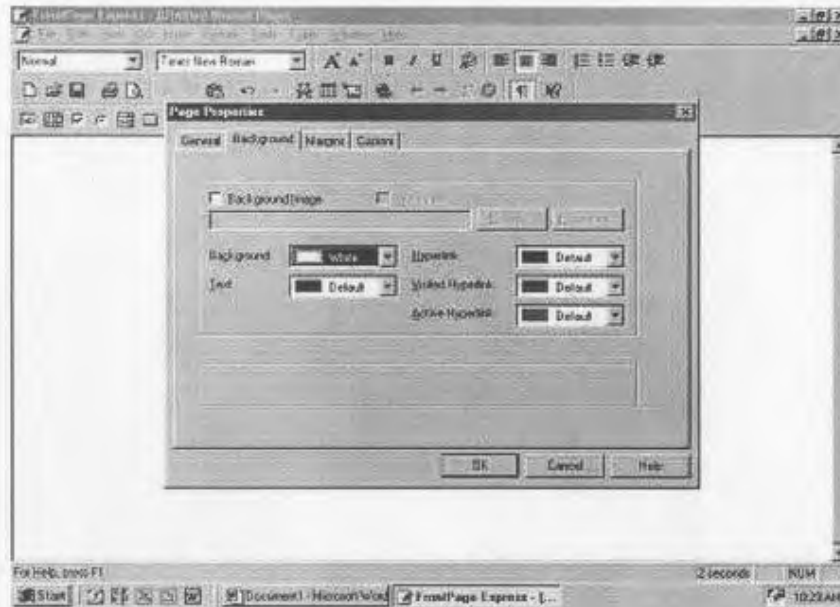
Find the toolbar at the top of your screen:



- The “B”, “I” and “U” will bold, italic and underline selected text.

To Add a Background Colour

- Click on Format from the menu bar and choose background.
- Choose a colour of your choice



Saving a Picture

- Find a picture that you want to add to your page and right click
- Choose Save Image As, and find your folder on S drive
- Click on Save

Placing the Photo on your Web Page

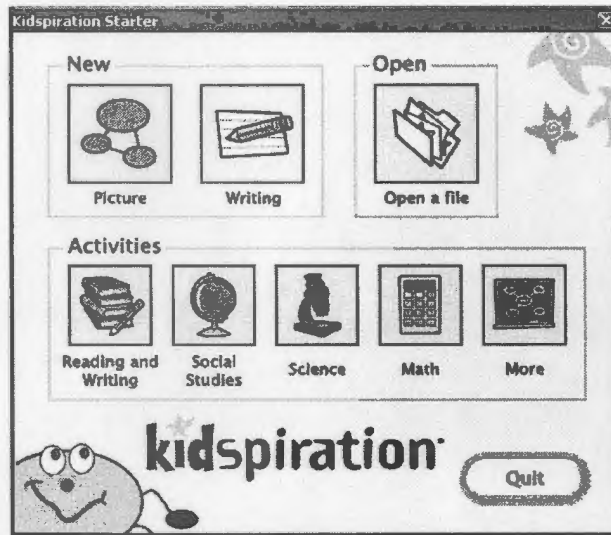
- Find the Image Icon
- Choose Browse and find your folder
- Click on the file name and select insert

Saving Your Page

- Click on the Save icon ... third from the left and looks like a floppy disk
- Choose As File and find your folder

How to use *Kidspiration*

1. Log onto the computer.
2. Open *Kidspiration*.
3. You will see the following screen.

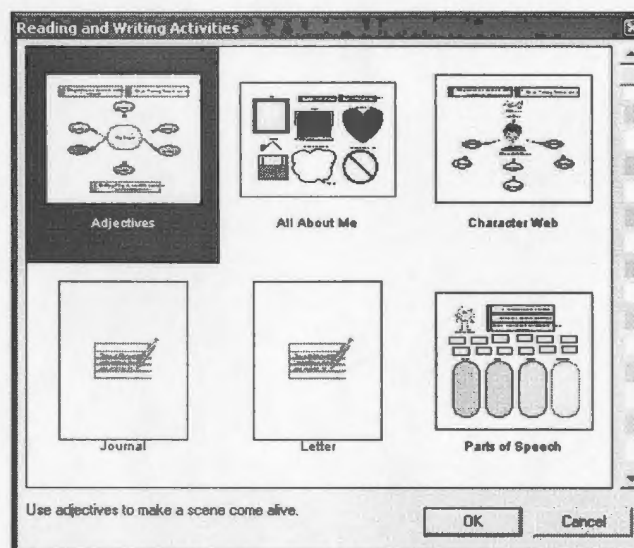


4. On this screen use your mouse to click on the Reading and Writing Button.

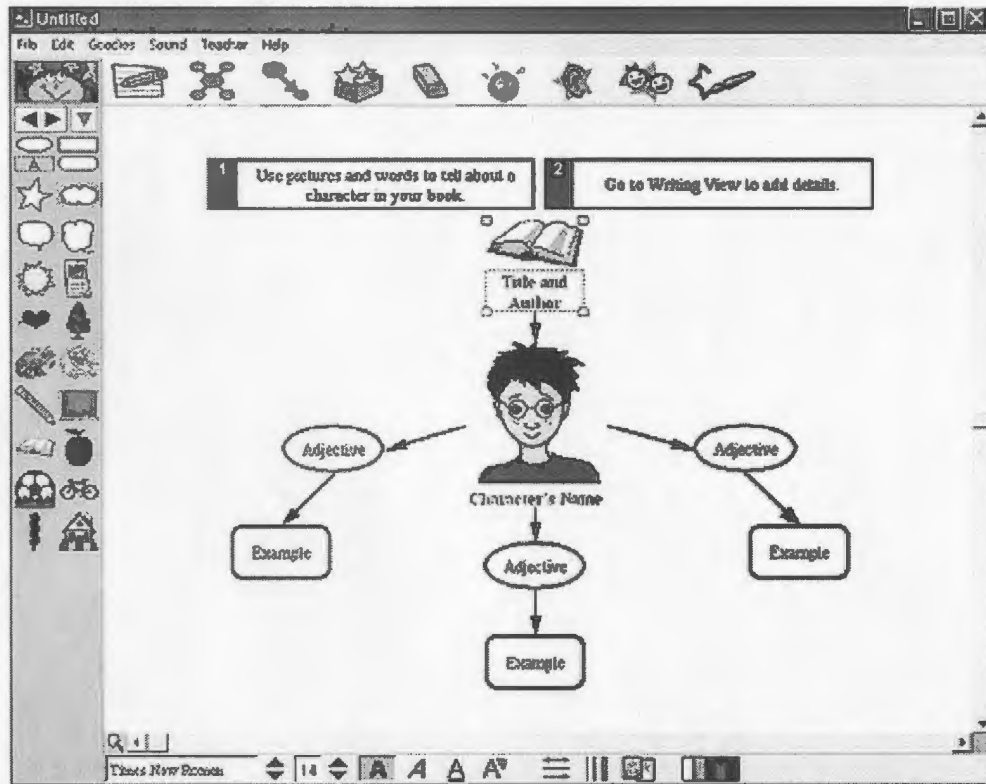


Reading and
Writing

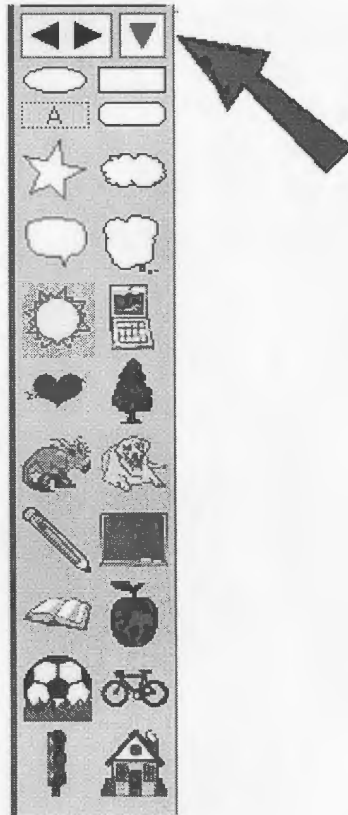
5. You will now the following screen.



6. From this screen, click on the Character Web. The following screen will appear:



7. Next you have to find a picture that you would like to use for your character. There is a library of pictures. To access them click on the red arrow on the left of your screen. A list of all of the picture libraries will appear. Scroll down until you see People and click on one of the Kids libraries with your mouse.



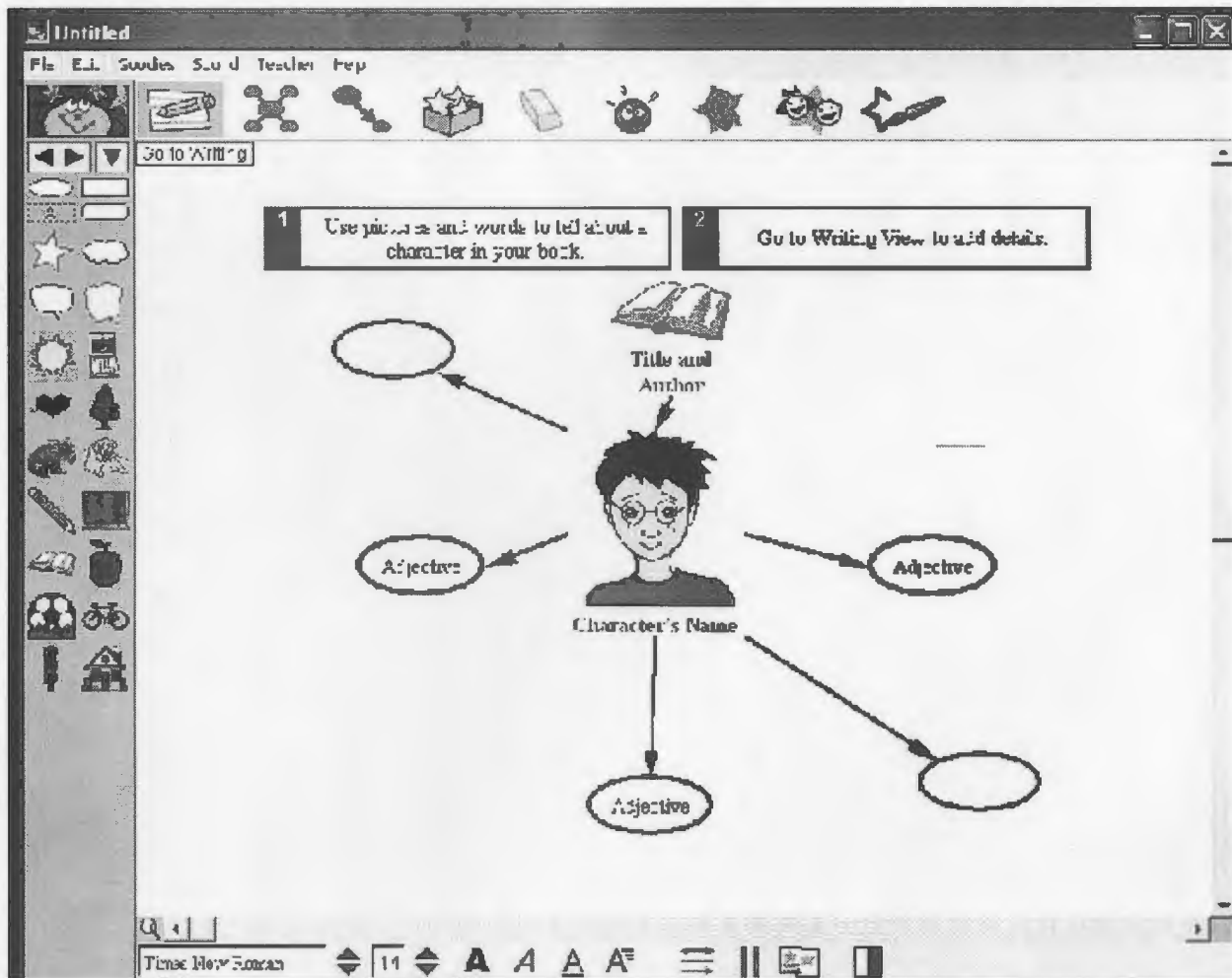
8. Pictures of people will now appear on the left hand side of your screen. To get the picture you want, make sure you have first clicked on the boy's picture in the middle of your page. Next find the picture you wish to use click on it.
9. You will then add two more symbols, so you will have five adjectives to describe your character. To do this, first click on the space where you want your symbol to appear. Next, click on the "add symbol" button.



10. To join your pictures to the web you must use the link symbols button. To do this you need to first click on the center character and then click on the link symbols button and then line it up with the center circle and click on your mouse.



Next, click on the "example symbol" and press delete. Your page should now look like this:



11. Then you can add the five adjectives to describe your character. Add the title and author of your book and the name of the character you are describing. You are then ready to supply supporting details. To get to the screen where you can type these details, click on the *Go To Writing* button.



12. You will see a screen similar to this:



Untitled

File Edit Graphics Sound Teacher Help

A. Title and Author

1. Character's Name

a. Adjective

b. Adjective

c. Adjective

d.

e.

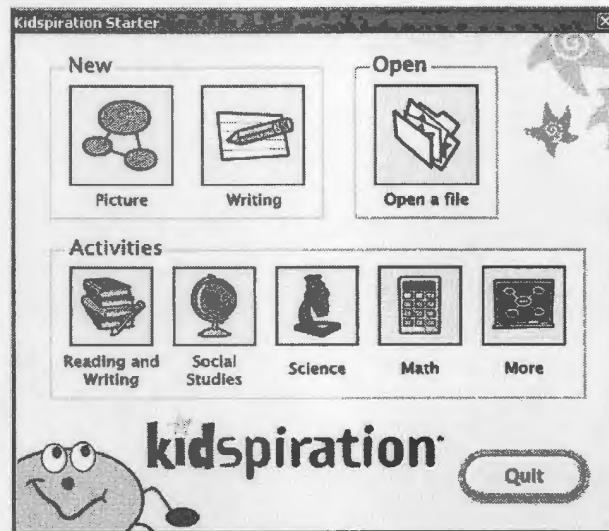
Times New Roman

13. You can now add the details from the novel to support your description of the character you are describing.

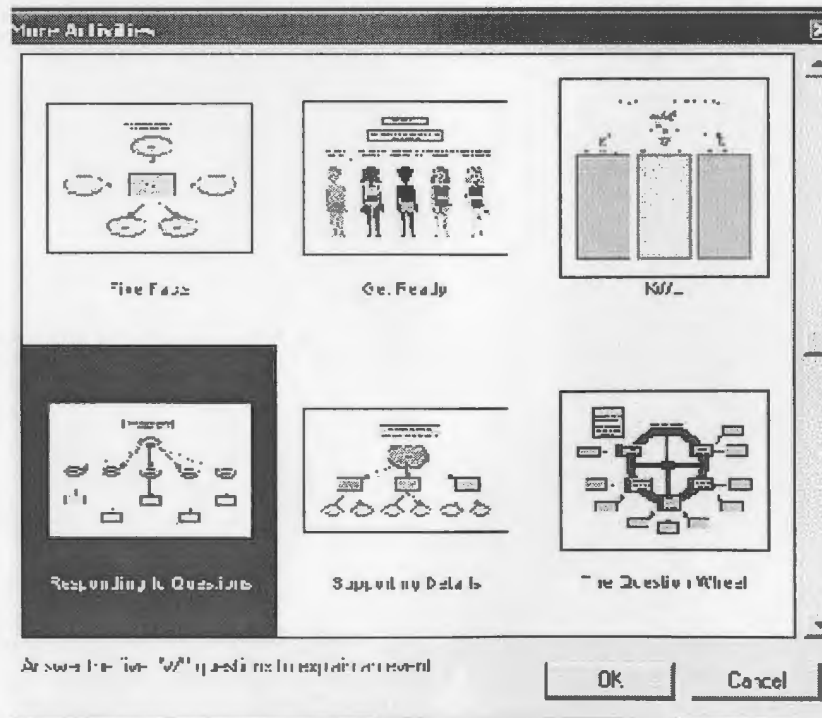
14. When you have your character sketch completed, save your work. (Ask your teacher for help!)

The second activity using Kidspiration is to answer the Five "W" questions to explain an event that you pick from your novel.

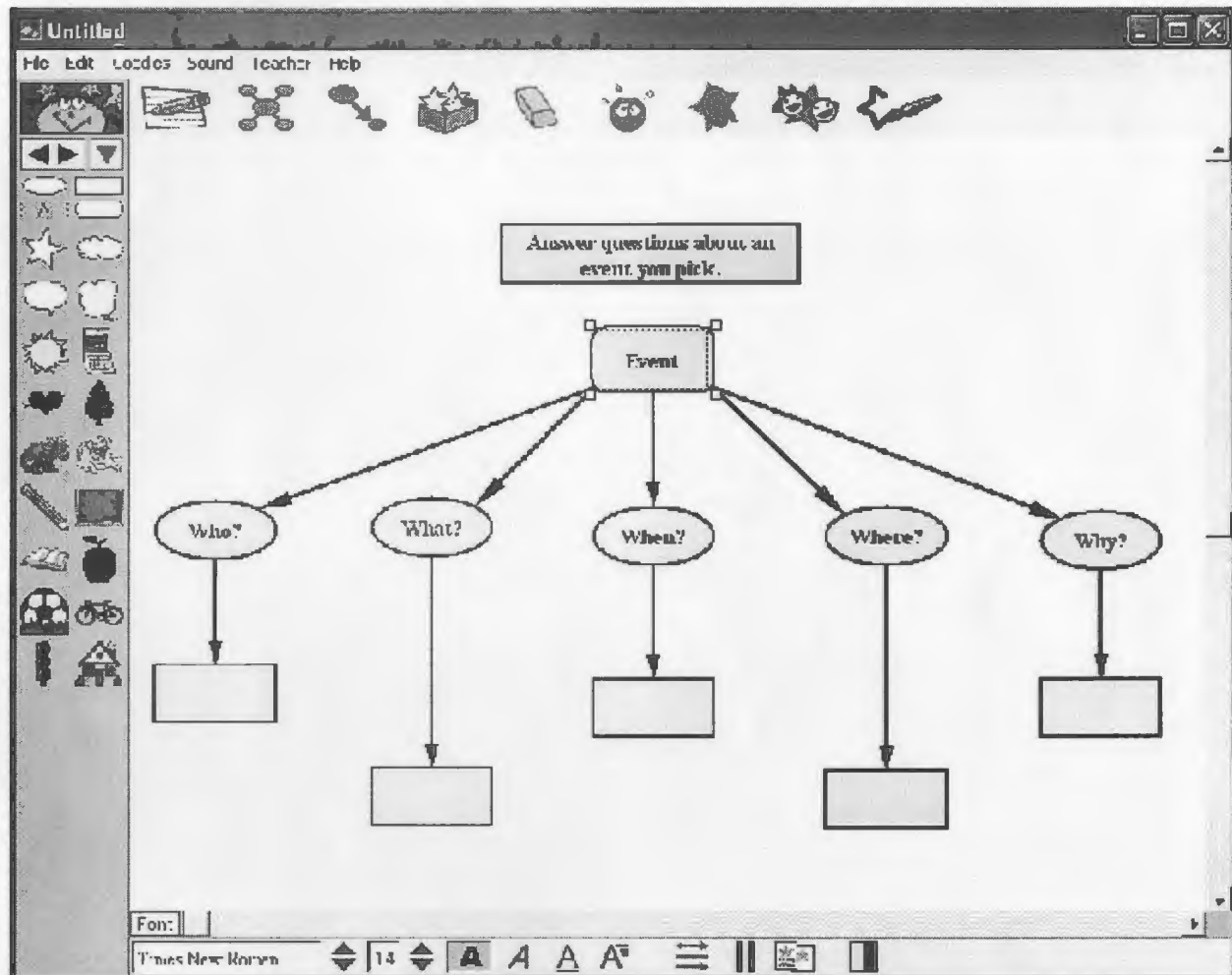
1. Open Kidspiration again, and choose the "More" button from the main screen.



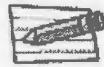
2. You will then see the following screen:



3. From this screen, click on Responding to Questions. The following screen will appear:



4. You will write one or two key words in each block to answer the five "w" questions.
5. You are then ready to supply supporting details to answer your questions. To get to the screen where you can type these details, click on the *Go To Writing* button.



6. You will fully write your question in a complete sentence on each line under "who, what, where, when and why" and your complete answers under the line with the one or two key words you wrote earlier. Your screen will look similar to this:

The screenshot shows a software window titled "Untitled" with a menu bar (File, Edit, Goodies, Sound, Teacher, Help) and a toolbar with various icons. The main area contains a form with the following sections:

- The Event**: A radio button followed by a line for the question.
- Who**: A radio button followed by a line for the question. Below this is a dashed box containing a radio button, the text "key words", and a line for the answer.
- What?**: A radio button followed by a line for the question. Below this is a radio button followed by a line for the answer.
- When?**: A radio button followed by a line for the question. Below this is a radio button followed by a line for the answer.
- Where?**: A radio button followed by a line for the question. Below this is a radio button followed by a line for the answer.

At the bottom of the window, there is a status bar showing "Times New Roman", a font size of 14, and several icons for text formatting (bold, italic, underline, etc.).

