Integrating Technology Into the Classroom

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EDTL 7100

Instructional Design Project

Rationale

Technology is a major part of today’s schools. Many school districts are implementing new resources and tools that integrate technology into the schools and classrooms every day. All ages are becoming familiar with today’s new technology resources and are able to utilize them.

The unit introduces ways that technology can be specifically integrated into Kindergarten classrooms, however, a lot of the lessons included in this unit could be used in various grade levels. The lessons focus on skills that are learned throughout the year in a Kindergarten classroom. An exciting piece of this curricular unit is that with some modification, these lessons could be used within a broad range of grade level classrooms.

In this unit, the Group Investigation Model will be most prevalent. “By working cooperatively, the students accomplish more than they could accomplish on their own” (Chiarelott, 2006, p. 116). Because of their limited Kindergarten skills, the students need to learn the importance of working cooperatively to solve problems. In as young as Kindergarten, students need to construct ideals of group members. As the teacher, I would observe and assist as needed rather than be directive.

This unit will utilize some individual instruction, but the majority of learning will be cooperative or take place in group settings. The lessons will transfer technology into reality. Virtual field trips, standard concepts and other lessons will help students correlate ideas both within and outside of classroom boundaries. They will be learning basic skills that will allow them to expand their use of technology and in other life experiences.

Learner Outcomes

Language Arts and Writing

♦ Students will be able to identify some alphabetic letters and corresponding sounds to those letter names. Students will continue to practice the letter names and sounds.

♦ Students will be able to identify some basic words and begin to hear sounds of letters within those words and word parts.

♦ Students will use phonetic skills to decode and write words.

♦ Students will be able to begin to write observations in a journal or notebook. Students can use prior knowledge of alphabet letter sounds and hearing word parts in order to write and spell words.

♦ Students will use the computer to generate a various words and eventually create books of their choice.

Technology, Information and Communication

♦ Students will be able to begin to use a computer properly and if needed ask for assistance.

♦ Students will learn the proper usage of a computer keyboard, mouse and other essential parts and tools of a computer. The keyboard will also expand student’s knowledge of alphabetic letters and sounds.

♦ Students will be able to begin to use a digital camera properly and if needed have assistance.

♦ Students will collaborate with other students, including various age groups and grade levels.

♦ Students will share their knowledge and present their technological findings with classmates. This will include knowledge of computer and technology skills.

Pre Assessment

At the beginning of the school year, a computer learning center is introduced to the students. This gets them thinking about how a computer can be used in the classroom. They are shown various games and activities that will be used in their learning process throughout the year. This is a small group activity and the main pre assessment is observation and checklists of how much base knowledge the students have.

The teacher used these observations to develop and modify the lessons to meet the students’ needs. Each student comes in with a different level of technological skills. The ultimate goal is for the students to be able to integrate their knowledge into various experiences. My pre assessments will allow me to find out how much the students know about technology and how to continue down the information highway.

Lesson plans

Kindergarten

Language Arts/Phonics/Technology

**Instructional Goal:** Students will be able to identify basic colors. (red, blue, green, black, white, yellow, pink, gray, orange, purple and brown)

(Correlates with Ohio Content Standard *Acquisition of Vocabulary* **3 - Identify words in common categories such as color words, number words and directional words.**

*Technology for Productivity Applications* 3 - Identify and use input (keyboard, mouse) and output (printer) devices to operate computer and multimedia technology tools with teacher assistance.)

**Rationale:** Introducing colors and color words at the beginning of Kindergarten year is vital to the students understanding of colors and various ways to categorize objects throughout the school year. It is also very important for Kindergarten students to recognize a computer as a useful tool in the classroom that they are to use properly and treat with care.

**Objectives:**

The students will be able to:

♦ Classify basic colors and match each color with an object that may be displayed using that color.

♦ Begin to use a computer properly and if needed have help.

**Resources / Materials:**

Student computers (at least 4 to be used as a learning center station.)

‘PAINT’ computer program on the computer

**Procedures:**

**Engagement / Motivation:** **Allotted Time: 15 minutes**

♦ Discuss with the students’ previous color activities completed.

♦ Review color flash cards with the class.

♦ Engage the students in basic steps when using classroom computers and using the basic objects – mouse, keyboard and headphones.

**Focus of the Lesson:** **Allotted Time: 20 minutes**

♦ Students will report to daily literacy work stations.

♦ If students are at computer center, they will complete the color match up activity that day. If they are not at computer center that day, they will get to complete the lesson within the next 2 days of work stations.

♦ Explain center activity students. They are to match the colors that they have been learning up with items that correctly correspond by clicking the mouse. For example – white would match with a snowflake, black with a bat.

♦ Monitor student progress and understanding during the completion of the center.

♦ Collect the completed activity from the students that will be printed from the computer that they were working at.

**Closure to the Lesson:** **Allotted Time: 5 minutes**

♦ Students complete as much of the computer activity as possible.

♦ Students close down computer PAINT program, put headphones above the computer and push in chairs.

**Assessment:**

Students will be evaluated on their ability to identify colors and items that may correspond with that color. Students will also be observed by the teacher of their use of the computer properly. If students complete at least 50% of the activity correctly, they may need extra help, but that is also an indication that they are getting used to using the computer, computer program and were showing effort in the activity.

Kindergarten

Language Arts/Letter Identification/Technology

**Instructional Goal:** Students will identify letters by using the computer keyboard.

(Correlates with Ohio Content Standard *Phonemic Awareness 4* **– Distinguish and name all upper- and lower-case letters.**

*Technology for Productivity Applications* 3 – Identify and use input(keyboard, mouse) and output (printer) devices to operate computer and multimedia technology tools with teacher assistance.

**Rationale:** Introducing letters at the beginning of Kindergarten is vital to the students understanding of letters, sounds and words. It is also very important for Kindergarten students to recognize a computer as a useful tool in the classroom that they are to use properly and treat with care.

**Objectives:**

The students will be able to:

♦ Students will practice letter identification

♦ Students will reinforce knowledge of the keyboard

**Resources / Materials:**

26 laminated cards, one with each letter of the alphabet

Large floor space

**Procedures:**

**Engagement / Motivation:** **Allotted Time: 5 minutes**

♦ Show students a computer keyboard. Explain they are going to play a game of letter knowledge.

**Focus of the Lesson:** **Allotted Time: 20 minutes**

♦ Create 26 cards, each with a different letter of the alphabet written in large writing. Arrange the cards on the floor to mimic the position of the letters on a computer keyboard. Tape the cards to the floor.

♦ Select a student to demonstrate the lesson. Call out a letter, the student should step on the correct letter. To make the lesson more difficult, do the same idea using high frequency words, students must spell out the word by stepping on the correct letters.

**Closure to the Lesson:** **Allotted Time: 5 minutes**

♦ Explain the importance for knowing keyboard placement.

**Assessment:**

Students will be evaluated on their letter identification using the floor keyboard.

Kindergarten

Language Arts/Phonics/Technology

**Instructional Goal:** Students will be able to properly use a digital camera to identify different beginning sounds of various alphabetic letters.

(Correlates with Ohio Content Standard **Phonemic Awareness, Word Recognition and Fluency 4. Distinguish and name all upper- and lower-case letters, 5. Recognize, say and write the common sounds of letters, 7. Hear and say the separate phonemes in words, such as identifying the initial consonant sound in a word, and blend phonemes to say words. 8. Read one-syllable and often-heard words by sight.** Standard 4 Technology and Communication Applications: 1. Examine digital images in learning)

**Rationale:** One of the basic skills introduced in Kindergarten is learning the alphabet and the corresponding sounds to those letters. The purpose of this lesson is to reinforce to the students the sounds of various letters in the alphabet.

**Objectives:**

The students will be able to:

♦ Identify some letters and corresponding sounds to those letter names.

♦ Begin to use a digital camera properly and if needed have assistance.

**Resources / Materials:**

2 digital cameras

**Procedures:**

**Engagement / Motivation:** **Allotted Time: 20-30 minutes**

♦ Discuss with the students’ previous letter naming activities completed.

♦ Review alphabet flash cards with the class – identifying letter name and sound. Review weekly letter.

♦ Engage the students in basic steps when using classroom digital cameras. (How to turn them on, use them properly, take pictures and review pictures.)

**Focus of the Lesson:** **Allotted Time: 30 minutes**

♦ Students will report to daily literacy work stations.

♦ If students are at alphabet center, they will be assigned a digital camera.

♦ Explain center activity students. They are to walk through their hallway looking for objects and pictures of our weekly letter which is /Tt/.

♦ Students will take turns finding objects or pictures that begin with the letter Tt. Once they have found 10 items total, they are to return to the classroom.

♦ The students will then review with the teacher the pictures that they found. With assistance from the teacher, the pictures will be uploaded onto a classroom computer.

**Closure to the Lesson:** **Allotted Time: 30 minutes**

♦After every student in the class has completed this center, the pictures can be displayed to the entire class using a projector. The students can then identify if the pictures does start with the correct sound of the weekly letter.

**Assessment:**

Students will be evaluated on their ability to identify pictures and objects that begin with the weekly letter being learned in class. The students can “present” to the class what pictures they found. Students will also be observed by the teacher of their use of the digital camera properly.

Kindergarten

Language Arts/Writing/Science/Technology

**Instructional Goal:** Students will be able to observe various animals using the classroom computers by attending an online field trip.

(Correlates with Ohio Content Standards Writing Processes Standards **1. Generate writing ideas through discussions with others, 2. Choose a topic for writing, 4. Organize and group related ideas, 5. Write from left to right and top to bottom, 6. Use correct sentence structures when expressing thoughts and ideas, 7.  Reread own writing, 8.  Use resources (e.g., a word wall) to enhance vocabulary, Earth and Space Sciences Standard** 2. Explore that animals and plants cause changes to their surroundings, Technology and Communication Applications 1. Explore different types of media formats used to communicate information, Productivity Tools 1. Examine digital images in learning, 1. Engage in teacher-directed online learning activities (e.g., 100th day of kindergarten activities, online field trips).

**Rationale:** With the amount of cutting being done throughout school districts, unfortunately, field trips are a large cut. With the use of online resources and computers, students will be able to visit the local zoo to observe various animals in their habitats.

**Objectives:**

The students will be able to:

♦ Observe various animals in their surroundings at a local zoo.

♦ Begin to use a computer properly and if needed have help.

♦ Write observations in a journal or notebook.

**Resources / Materials:**

Student computers with Internet access

Student journals

Pencils

[**www.columbuszoo.org/**](http://www.columbuszoo.org/)

**Procedures:**

**Engagement / Motivation:** **Allotted Time: 15 minutes**

♦ Discuss with the students’ that they are going to attend an online field trip.

♦ Review with the students that they are to make 5 observations during the field trip and how they are to record them in their journal. (Teachers may show an example in their writing journal.)

♦ Engage the students by the reviewing the basic steps of getting onto the website and beginning the online field trip.

**Focus of the Lesson:** **Allotted Time: 40 minutes**

♦ Students will be able to make observations.

♦ Teacher will guide students to virtual field trip bookmark of the Columbus Zoo ***-*** [**www.columbuszoo.org/**](http://www.columbuszoo.org/)**.**

♦Students will complete and experience the virtual zoo field trip.

♦ Students will journal their itinerary as they travel through the virtual field trip.

♦ Monitor student progress and understanding during the completion of the virtual field trip.

♦Give students time to finish writing and recording observations in their journals.

♦Students can draw a picture to correlate with their observations and sentences written.

**Closure to the Lesson:** **Allotted Time: 5 minutes**

♦ Students complete at least 5 observations from the virtual field trip.

♦ Students will each share aloud one observation to the entire class.

♦ Collect student’s journal to evaluate writing completed.

**Assessment:**

Students will be evaluated on their ability to observe the various animals that were shown throughout the virtual field trip to the Columbus Zoo. Each journal will be collected and evaluated upon writing and if observations were concerted and thoughtful. Teacher also has the option to have the student read his/her observations aloud to classmates after completed and conference about the student’s ideas.

Kindergarten

Language Arts/Reading/Technology

**Instructional Goal:** Students will create a big picture book version of their favorite story or book.

(Correlates with Ohio Content Standard *Reading Process 10* **– Identify favorite books and stories and participate in shared oral reading.**

*Technology for Productivity Applications* 3 – Use computer and multimedia technology with assistance. 4 – Use software programs with teacher assistance.

**Rationale:** Providing students the opportunity to create a book from an identified favorite using technology will encourage reading.

**Objectives:**

The students will be able to:

♦ Students will learn about big books.

♦ Students will create a big book version of a favorite story

♦ Students will use the computer to generate a book.

**Resources / Materials:**

Student computers (at least 4 to be used as a learning center station.)

Word processing computer program.

**Procedures:**

**Engagement / Motivation:** **Allotted Time: 5 minutes**

♦ Show students a big book

**Focus of the Lesson:** **Allotted Time: 20 minutes**

♦ Read aloud a story or book that is a class favorite. There should be one page of text for every child in the class. Type the text into a word processing document and enlarge font. Print pages and glue onto big pieces of paper. Ask each student to illustrate one page.

♦ Walk around the room while students illustrate. Put the pages together to make a big book.

**Closure to the Lesson:** **Allotted Time: 10 minutes**

♦ Read the big book to the class.

**Assessment:**

Students will be evaluated on their illustrations and their participation in creating the big book.

Post Assessment

The post assessment will cover the whole technology theme that has taken place throughout the school year. The assessment will be multi-facetted. The observations similar to the pre assessments will be more concrete. Through these observations and random questioning the teacher will able to identify what the student can accomplish individually as well as in a group.

As the unit lessons progress, the teacher should be able to observe the students using critical thinking skills to expand their basic knowledge into more intricate lessons and projects. There will be concrete evidence for assessment as the students produce a reflective journal that correlates to an online field trip or relates to their computer skills. The teacher could also keep a record of student progress from various educational programs on the computer. For example, PAINT program, Microsoft Word, Phonics Express, Reader Rabbit and Kindergarten Jump Start. Some of these programs have various difficulty levels which will lead to differentiated instruction and support ability grouping that may be taking place within the classroom setting and grade level. Besides the assessments tools listed here, there are also pre-determined lesson evaluations.

**Considerations for the post assessments are:**

- Log in/ log off of computer

- Usage and identification of computer parts and other devices – monitor, keyboard, mouse, tower, digital cameras,

- Program access

- Observations of group participation

- Sharing group findings through a group presentation

- Individual reflective journal and personal story book

- Data collection of specific program results

Resources/References Used

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