Caught in Action (Digital Camera/Video)   **ICT.7**

TIME
90 minutes

OVERVIEW
Students use a digital camera and/or still shots from a digital video camera to take a picture of themselves and to create an identity card.

LEARNING OUTCOMES
Through this learning experience (LE), students will achieve specific learning outcomes (SLOs) in various subject areas. Consider the intent of this LE and your choice of instructional and assessment strategies to determine which SLOs students may achieve, in addition to those identified.

English Language Arts
Consider the intent of this LE and your choice of instructional and assessment strategies to determine which SLOs students may achieve, in addition to those identified below:
- 4.2.3 *Enhance Legibility* — Write legibly and at a pace appropriate to context and purpose when composing and revising; select and use a variety of formatting options [such as spacing, graphics, titles and headings, variety of font sizes and styles...] when appropriate.
- 4.2.4 *Enhance Artistry* — Choose language, sounds, and images [including transitional devices] to enhance meaning and emphasis.
- 5.2.1 *Cooperate with Others* — Assist group members to maintain focus and complete tasks; identify and solve group process issues.

ICT LITERACY SKILLS AND COMPETENCIES
Consider the intent of this LE and your choice of instructional and assessment strategies to determine which skills and competencies students may achieve, in addition to those identified below:
- basic operating skills
- communicating electronically
- concept mapping

SUGGESTED LEARNING RESOURCES
Software
- video editing
- photo editing
- graphics

Print
- Appendix C: Index of Teaching and Learning Strategies and Tools

BLMs
- BLM ICT.1#3: Survey of Information and Communication Technology (ICT) Skills
- BLM OLE.5#2: Share the Learning Journal
- BLM OLE.8#2: What Have I Learned?

TBLMs
- TBLM ICT.2#1: Skill Know-How Checklist

- TBLM ICT.7#1: Resizing Images Using Adobe Photoshop
- TBLM ICT.7#2: Introductory Digital Camera Skills: Observation Checklist

Materials
- digital camera
- digital video camera
- identification (ID) card holders (with pins or strings)
- photo-quality printer paper

SUGGESTIONS FOR INSTRUCTION
Preparation and Set-up
- Become familiar with the functions of the digital camera and/or digital video camera available in the school.
- Create a sample ID card that students can use as a model.
- Ask students to bring to class ID cards with pictures. They may bring cards they have at home, or prepare hand-drawn facsimiles.
- Review the database of students' ICT skills, as expressed on BLM ICT.1#3: Survey of Information and Communication Technology (ICT) Skills, to identify possible student helpers for ICT.7: Caught in Action.
- Customize TBLM ICT.2#1: Skill Know-How Checklist for this ICT to make ongoing observations of students' skills.

Activating Strategies
- In collaborative groups, students examine the ID cards they brought to class. As students note the purpose of the cards, they make lists of the contents. Are there items that are on all cards (e.g., name, complete address, telephone number, title of card) regardless of their purpose?
- Demonstrate to the class the function of the digital camera, including the
  — LCD panel (LCD—liquid crystal display)
  — "on" and "play" buttons
  — shutter button
  — location of the batteries
- Connect the camera to the television and demonstrate some of the features while taking a picture of the class. Show how the pictures can be viewed using the "play" mode.
- Invite an employee from a photography company that makes school pictures and student ID cards to talk to the class about the card-production process, set-up of information on the cards, and use of appropriate font size and style for ease of reading.
- Invite a photographer to talk to students about lighting and composition.

Acquiring Strategies
- Inform students that they will need an Inventor ID card when they survey school students and school personnel, when they greet guests at the Invention Convention (see Module 4: Invention Convention: The Student As Inventor), or for any other invention-related event during the school year. Students keep this purpose in mind when they design an Inventor ID card.
- In collaborative groups, students decide on the content of their Inventor ID card. One designated group member uses the computer and graphics software (see ICT.4: Looks Like This) to draft the group's model.
- While collaborative groups create their cards, work with one group at a time to allow students to practise using the digital camera.

- Demonstrate to each group in turn how to download a picture, a still video frame (most digital video cameras have a function allowing the user to make a still photo), or a video clip to the computer.
- Demonstrate how still images can be cropped, resized, and exported or saved as a **jpeg**, in order to be used on a web page (see TBLM ICT.7#1: Resizing Images Using Adobe Photoshop and ICT.11: Make It: Creating an Effective Web Page) or for a multimedia presentation (see ICT.8: Make Your Point).
- As students develop their digital camera skills, observe and note their progress, using TBLM ICT.7#2: Introductory Digital Camera Skills: Observation Checklist.
- Groups leave their drafted ID cards on the computer monitor for a Gallery Walk. Students examine each other's designs and make helpful suggestions.

Applying Strategies
- Each student creates his or her personal ID card. Students import pictures of themselves into the appropriate location on the card and resize it if needed. They print their card and insert it into a cardholder. Photo-quality printer paper is suitable for this purpose.

Variations/Extensions
- Students capture photographs and/or video clips of their learning in action. They edit and insert these into multimedia presentations or web pages.
- Students film a school event and present it to the class during a session of OLE.7: Speak Ye! Hear Ye!
- Students write up and film a news report (see OLE.9: Newspapers).
- Students include a photograph of themselves on the title page of their Personal OLE Binder (see OLE.1: Personal Binder Reminder).
- Students include video clips in a multimedia presentation (see ICT.8: Make Your Point) or on a web page (see ICT.11: Make It: Creating an Effective Web Page).
- Students create journal entries using BLM OLE.5#2: Share the Learning Journal as they make learning discoveries. They use their journals to prepare for sharing sessions and bring home their journals each week.

SUGGESTIONS FOR ASSESSMENT
- Students reflect on their learning related to this ICT as they update BLM OLE.8#2: What Have I Learned? during reflection time (see OLE.8: Reflection Journal). They list newly acquired skills.
- Assess the applications of this ICT in this interdisciplinary unit through performance assessment; that is, assess how well students can use the digital camera in the LEs (as appropriate).

CONNECTION TO **INVENTIONS, INNOVATIONS, AND DISCOVERIES**
- Students film an advertisement of their invention to show in Module 4: Invention Convention: The Student As Inventor.
- Students use their ID cards throughout this *Inventions, Innovations, and Discoveries* interdisciplinary unit as they survey teachers, peers, and parents, as well as during the Invention Convention.

TBLM ICT.7#1: Resizing Images Using Adobe Photoshop

Overview
- In this task you will resize a digital image and export it as a **jpeg**. The image will then be ready to use on a web page or for another multimedia project.

Learning Resources and Materials Required
- Adobe Photoshop
- digital images downloaded from the camera
- electronic folder in which to store the images

Steps to Follow
- Start the Adobe Photoshop program.
- Go to File, and then to Open File. A dialog box will open.
- Locate the folder where the downloaded images are stored. Select the image you wish to resize.

Resize the Entire Image
- Go to Image, and then to Image Size. A dialog box will open.
- Under Document Size, set the size desired for the image height. The width will adjust in proportion to the height.
  Note: Select the format for the image from the drop-down menu in the box next to the size boxes. This involves a choice of inches, centimetres, pixels, and so on.
- Do a Save As and rename the image, especially if you have edited it. Using the drop-down Format menu, select a format for the image. The best formats for use in multimedia presentations or web pages are **jpeg** and **gif.** The file extension will be added automatically.

Resize the Image by Cropping
- Click on the Cropping tool. It is the third tool down on the left in the toolbox. If you are unsure, slide the mouse over the tools to bring up their names.
- Click on the upper left of the area to be cropped, hold and drag down and to the right until you have selected an area. The selected area can be moved by clicking in its centre and sliding it in the desired direction.
- Click Enter to view the selected area as a new window.
  Note: A new window will replace the previous one. If you want to keep the original image, make a copy of it by doing a Save As of the image and work with that copy.
- Follow the directions above for saving the image in the appropriate format.

The resized image is ready for your multimedia presentation.

This document can be stored in the Toolbox Binder (see ICT.1: Toolbox Binder).

TBLM ICT.7#2: Introductory Digital Camera Skills: Observation Checklist

Student Name	Digital Camera Skill							
	Holds camera safely and with strap.	Uses distance selector.	Uses "play" mode to see images.	Downloads images into appropriate folder.	Is able to "snap" picture.	Is able to delete images.	Other:	Other: