



Integrated ICT Learning Unit
Volume 1
Fly the Flag

Help rebuild the Brazilian flag

An interactive puzzle interface for rebuilding the Brazilian flag. It features a large central canvas with a partially assembled flag. To the right, there are two toolbars: 'tools' with icons for rotation and movement, and 'flag pieces' with icons for the flag's components (green triangle, yellow triangle, and blue globe). A 'Trash' bin icon is located at the bottom right of the interface.

Overview

This integrated ICT learning unit consists of one activity which explores the concept of the Brazilian Flag.

Lesson format:

10 minutes	Educational game (optional; at the discretion of the teacher)
5 minutes	“Tech Talk” which introduces ICT terminology
5 minutes	Mouse skills which develop essential mouse and keyboard/touch typing techniques
20 minutes+	Integrated activity involving tasks which relate to relevant content being covered in the classroom

ICT applications used in this Learning Unit:

Word Processing	Graphics	Spreadsheets	Databases	Internet	E-mail	Presentations	Drawing	Web design	Information Organiser	Simulations & design	Desktop Publishing	Operating Systems	Programming & logic
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Structure of the Learning Unit:

Integrated Activity

This lesson is aimed at integrating ICT into current, relevant class curriculum. Using this approach enables learners to use the computer not only as a working tool but also as a relevant learning tool to learn new concepts and skills or consolidate previously learnt work. This activity will take between 20 – 60 minutes (or 1-3 lessons) to complete depending on the ability of the learners and the time available.

e-Learner Assessment

The required assessment for each unit is completed by the ICT teacher by means of evaluating each skill on the skills matrix. The ICT teacher can indicate on the skills matrix whether the skill is being practised or developed by inserting a tick in the appropriate column next to the appropriate skills. Should the teacher wish to formally assess the skills, the relevant achievement level can be indicated in the assess column next to each skill assessed. The corresponding e-Learner skills should also be marked off when completed. The e-Learner skills can also be formally assessed by subscribing to the relevant online e-Learner assessment for which an ECDL endorsed certificate will be issued upon successful completion of the course. By utilising these assessment tools, the level of ICT competency as well as the progress of each learner can be monitored. The assessment matrix, as contained in this lesson instruction book, may be printed or photocopied for each learner.

STRUCTURE OF LESSON FLY THE FLAG

INTEGRATED LESSON	
Prior Learning Requirements	
Concept / Topic: Knowledge of Brazilian Flag ICT Skills: Drag and drop; Effective control and use of the mouse	
Educational Game	10 Min
A suitable educational game may be used as an optional activity at any point during the course of the lesson at the discretion of the ICT or class teacher	
Keyboard / Mouse Skills	5 Min
A suitable activity should be selected by the ICT or class teacher to ensure continuity and progression of appropriate skills	
Tech Talk	5 Min
CLICK Pressing down once on the mouse button and then letting it go.	
Integrated Activity	20 Min
Learners reconstruct the Brazilian flag by re-orientating the coloured pieces	
Resources Used	
Software: Flash Prerequisite: None Template: Yes WWW: None	
Subjects	
<ul style="list-style-type: none"> • English Language • Mathematics • Life Skills 	
Additional Learning Opportunities	
Concept / Topic: 1.10 My School ICT Skills: 1.1 My Body 1.11 My Pets	
Beyond the ICT Centre	
<ul style="list-style-type: none"> • Let learners create their own special flags • Have an international day where various countries national traditions are represented 	

Learner name:	Class	
Integrated Activity: Learners reconstruct the Brazilian flag by re-orientating the coloured pieces		
Theme/Topic: Fly the Flag	Integrated Activity	
e-Learner Skills	Practice	Assess
Unit 2 - Files and Folders		
2.2.1 Right / Left click mouse		
2.2.2 Single / Double click mouse		
2.3.1 Alpha / numeric keys on keyboard		
2.5.1 Open / Exit programmes Using Shortcuts		
2.6.2 Close window		
2.6.3 Move window		
2.7.4 Opening Files		
2.7.6 Closing Files		
<p>7 = Outstanding Achievement 6 = Meritorious Achievement</p> <p>5 = Substantial Achievement 4 = Adequate Achievement</p> <p>3 = Moderate Achievement 2 = Elementary Achievement 1 = Not Achieved</p>		

Integrated Lesson Fly the Flag (Flash)



EDUCATIONAL GAME: (10 minutes)

A suitable educational game may be used as an optional activity at any point during the course of the lesson at the discretion of the ICT or class teacher



KEYBOARD/ MOUSE SKILLS: (5 minutes)

Check that all learners:

1. Are holding the mouse correctly.
2. Know which finger is used to click the mouse button.
3. Can left click and right click.



TECH TALK: (5 minutes)

CLICK

Pressing down once on the mouse button and then letting it go.



INTEGRATED ACTIVITY

In order to promote relevant discussion, the following questions are posed by the educator to the learners:

- How many colours are there in the Brazilian flag?
- What does each colour represent?
- What shapes are the different pieces?

A short discussion takes place about the Brazilian flag, the shapes and colours of the different pieces and what the colours represent.

Explain to the learners that they are going to reconstruct the Brazilian flag using different shaped pieces.

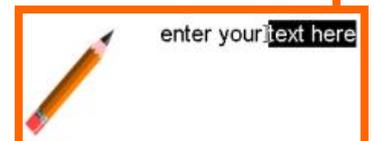
Task: Today you are going to make Brazilian flags to sell in your shop at a big event. You will be given different shaped pieces which you will have to turn around (rotate) in order to build the flag correctly.

Note to the educator: Please explain to the learners that some shapes need to be layered to get the desired outcome!

1. Click on the template flag_brazil.html.
2. The opened template will look like this:



5. Begin to reconstruct your Brazilian flag by selecting a flag piece.
6. Move your cursor over a flag piece. The cursor will change into a small white hand.
7. Click and drag the flag piece to the desired location.
8. Release the left mouse button to drop the flag piece onto the screen.
9. You may need to rotate the flag piece to obtain the correct orientation.
10. Drag the flag piece to the tools and click on the appropriate button to obtain the correct orientation.
11. Once the flag piece has been correctly orientated, move it to the centre of the screen and place the flag piece in the correct place.
12. Continue reconstructing the flag by moving the other flag pieces in a similar way.
13. You may also build a smaller or bigger flag by sizing the pieces before dropping them onto the screen.
14. To size a flag piece, use the appropriate tools in the tools window.
15. Once you have reconstructed the SA flag you may insert text onto the screen.
16. Add your name to the picture: Click on the pencil at the bottom right-hand corner of the screen.
17. Wording will pop up which says "Enter your text here". Delete this text by using the ← backspace key or highlighting the text and pressing the delete key.
18. Enter your own text. Move your cursor over the text and when it changes to a little white hand you may drag and drop the text anywhere on your picture.
19. If you make a mistake with your text you can edit it by clicking on the text and changing it.
20. You can also delete it altogether by dragging it to the dustbin.



21. If you wish to start the screen from scratch, press the refresh button on your browser or F5 on your keyboard. This will reload the screen.
22. To print your SA flag picture → file → print
23. Close the screen by clicking on the X in the top right hand corner of the screen or clicking on File → Close

Note to the educator: If you close this Flash screen without printing at this point, you will lose your work. To save an image of your work you can take a screen capture of your completed work by pressing the Print Screen key on your keyboard. This will copy an image (like taking a photograph) of your completed work to the clipboard (of the computer). Open MS Word and click on the paste icon on the home ribbon. Your screen capture image of your completed work will appear on your page. Save this document to your digital portfolio and print it out at your convenience. Screen captures are like photographs – they are flattened images and no further editing of the screen in its original context will be possible.



Help rebuild the Brazilian flag



tools



flag pieces



