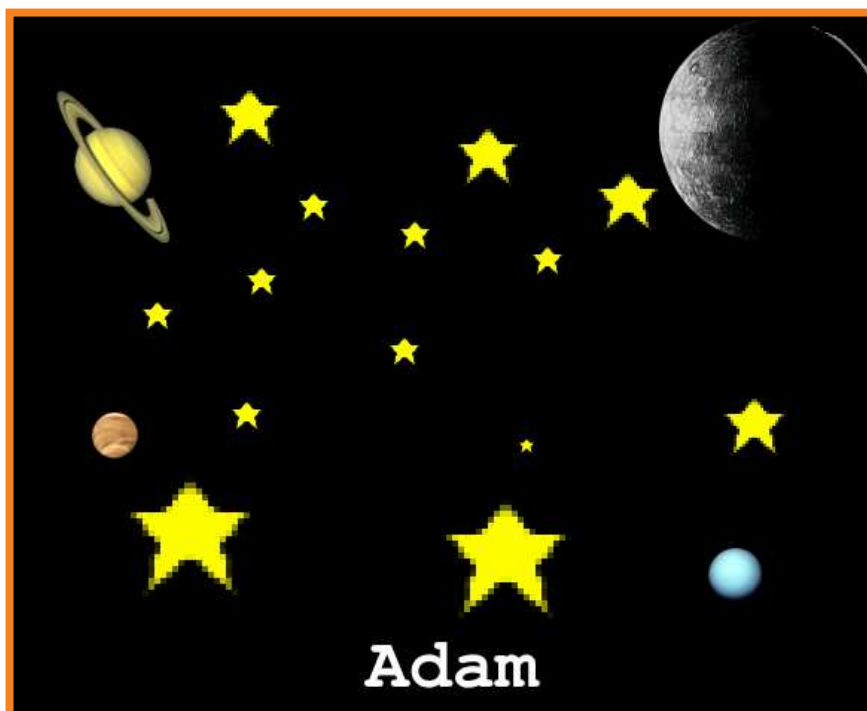




Integrated ICT Learning Unit
Volume R
R.5 Night Time



Endorsed by the
ECDL Foundation

Overview

This integrated ICT learning unit consists of one activity which explores the concept of the **night sky**.

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
							√						

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, a symbol of 1, 2, 3 or 4 is inserted into the matrix in the assess column next to each skill assessed. The corresponding skills should also be marked off on the e-Learner Administration System and forwarded to Head Office when completed. As a pre-requisite for accreditation, all the required skills for each e-Learner unit need to be mastered. In this way, the level of ICT competency as well as the progress of each learner can be monitored. This matrix may be printed or photocopied for each learner.

LEARNING OUTCOMES ADDRESSED IN THIS INTEGRATED ICT LEARNING UNIT						
Learning Areas	LO1	LO2	LO3	LO4	LO5	LO6
Languages	Listening	Speaking	Reading & viewing	Writing	Thinking & reasoning	Language Structure and use
Mathematics	Numbers, operations & relationships	Patterns, functions & algebra	Space & shape (Geometry)	Measurement	Data Handling	
Natural Sciences	Investigate relationships & solve problems in scientific, technological & environmental contexts	Interpret & apply scientific, technological and environmental knowledge	Relationship between science, technology, society & environment			
Social Sciences - History	Historical Enquiry	Historical Knowledge and Understanding	Historical interpretation			
Social Sciences - Geography	Geographical Enquiry	Geographical Knowledge and Understanding	Exploring Issues			
Arts and Culture	Creating, Interpreting and Presenting	Reflection	Participation and Collaboration	Expression and Communication		
Life Orientation	Health Promotion	Social Development	Personal Development	Physical Development and Movement	Orientation to World of Work	
Economics and Management Sciences	Economic Cycle	Sustainable Growth and Development	Managerial, Consumer & Financial Knowledge & Skills	Entrepreneurial Knowledge & skills		
Technology	Technological Processes & Skills	Technological Knowledge & Understanding	Technology, Society & the Environment			

STRUCTURE OF LESSON R.5 NIGHT TIME

INTEGRATED LESSON	
Prior Learning Requirements	
Concept / Topic: Knowledge of objects found in a night sky	
ICT Skills: Knowledge of basic Tux Paint tools; Effective control and use of the mouse	
Educational Game	10 Min
A suitable educational game, as per Appendix A, 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
Ensure continuity and progression as per Appendix B	
Tech Talk	5 Min
ICONS The little pictures that you see on the screen which are used to represent programmes, files or functions	
Integrated Activity	20 Min
Learners create a night time picture using a drawing programme	
Resources Used	
Software: Tux Paint	
Prerequisite: None	
Template: None	
WWW: None	
Learning Outcomes	
<ul style="list-style-type: none"> • Language LO 1 • Arts and Culture LO 1 	
Additional Learning Opportunities	
Concept / Topic: R.11 Fireworks	
ICT Skills: R.1 Shape R.11 Fireworks	
Beyond the ICT Centre	
<ul style="list-style-type: none"> • Visit your local observatory to see the night sky 	

Learner name:	Class:	
Integrated Activity: Create a night time picture using a drawing programme		
Theme/Topic: Night Time	Integrated Activity	
Learning Outcomes & Assessment Standards	Practice	Assess
Language		
R.1.1 Listens attentively to instructions and responds appropriately.		
<i>Comment:</i>		
Arts and Culture (Visual Arts)		
R.1.4. 2 Explore basic formal elements such as line, shape and colour.		
<i>Comment:</i>		
Concepts and Skills		
Night Sky		
Listen to and follow instructions		
Hand eye co-ordination		
Association		
Creativity		
4 = Exceeded Requirements 3 = Satisfied Requirements 2 = Partially Satisfied Requirements 1 = Has Not Satisfied Requirements		

Learner name:	Class:	
Integrated Activity: Create a night time picture using a drawing programme		
Theme/Topic: Night Time	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		
2.4 Recognising icons		
2.5.1 Open / Exit programmes Using Shortcuts		
2.5.2 Open / Exit programmes Using Start Menu		
2.6.2 Close window		
2.7.5 Saving Files		
Unit 3 - Drawing		
3.1 Open programme		
3.2 New picture (blank canvas)		
3.4.1 Use Paintbrush		
3.4.2 Use Stamps		
3.4.4 Use Shapes		
3.4.5 Use Colour palette		
3.4.6 Use Mirror / flip		
3.4.7 Use Grow / shrink		
3.4.8 Use Special effects		
3.4.9 Use Fill		
3.4.10 Use Eraser		
3.4.11 Use Undo / redo		
3.5.1 Text Font face		
3.6 Save		
3.7 Print		
3.8 Exit		
4 = Exceeded Requirements 3 = Satisfied Requirements 2 = Partially Satisfied Requirements 1 = Has Not Satisfied Requirements		

Integrated Lesson Night Time (Tux Paint)



EDUCATIONAL GAME: (10 minutes)

A suitable educational game, as per Appendix A, 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)

Backspace key - deletes one or more characters to the left of the insertion point.

Delete Key - deletes one or more characters to the right of the insertion point.

Shift key - to type character in upper case.

Caps Lock - to type more than one character or words into upper



TECH TALK: (5 minutes)

ICONS

The little pictures that you see on the screen which are used to represent programmes, files or functions.



INTEGRATED ACTIVITY (20 - 60 MINUTES)

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

- **How is the world different at night from during the day?**
- **What sources of light do we use at night?**
- **Is there anything that we see at night that we don't see during the day?**

A short discussion takes place about night time and how things appear different at night because there is no sunlight as there is during the day.

Close your eyes and imagine that the sun has gone down already. Imagine yourself at your bedroom window. You are looking at the sky and your surroundings. What do you see? Discuss with the learners what they see.

Task: Create a night time picture using the drawing and effects tools in a drawing programme

Note to the educator: This task requires the programme: "Tux Paint". A shortcut to this programme should be loaded onto the desktop of each computer. We suggest that you sit prior to the lesson and discover this programme for yourself.

1. Open Tux Paint by double clicking on the **Tux Paint** icon on the desktop or clicking on the **Main Menu → Education → Tux Paint**
2. Let's explore each of the **icons** we see on our screen (*Note to the educator: The screenshot below is available with the Educator Resources – it can be printed out and displayed in your centre. Explain each of the tools in the screenshot to the learners and allow them time to explore the programme on their own*)



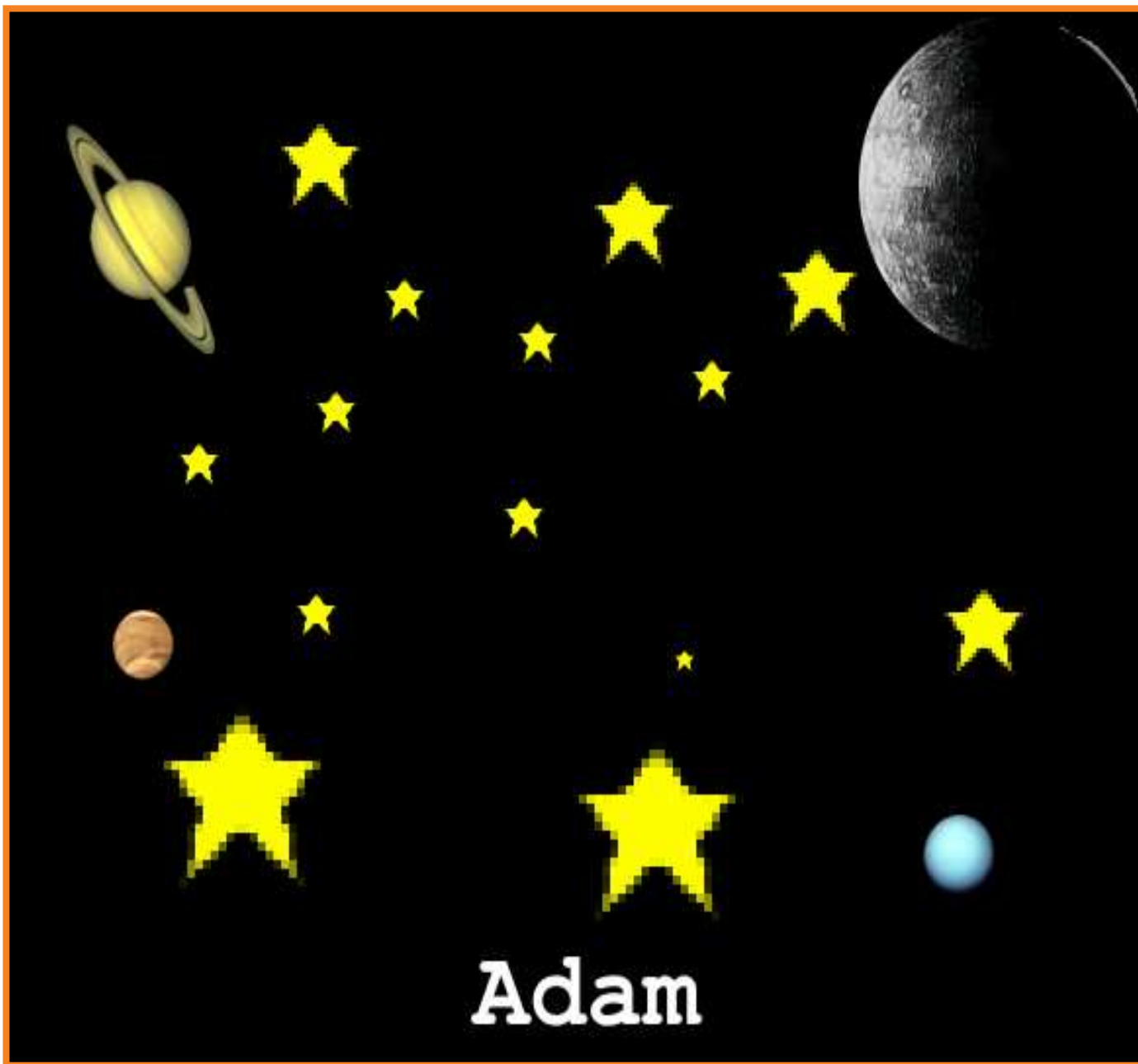


4. When you click on an **icon** on the left, various options appear in a toolbar on the right of your screen. Click on the upward and downward pointing **arrows** to scroll through the various options / effects available on the right of your screen.
5. You are now going to create a night picture → click on the **new icon** to start a new picture with a blank screen.
6. To fill the page with a black colour (or a night time colour of your choice), **click on the magic tool icon** (left toolbar) → **click on the fill icon** (right toolbar) → **click on the black colour** (or your selected colour) **on the colour palette at the bottom of the screen** → **click on your page**. Your whole page will be filled with the colour you have selected.
7. You are now going to insert and draw night sky objects.
8. To draw stars → click on the **stamp icon** on the left toolbar.
9. On the right toolbar, click the up / down arrows to scroll through the various stamp pictures until you find a picture of a star.
10. To place the star onto your picture **click on the star stamp** (right toolbar) → **click on your page** where you wish to place the star.



11. You can use the tools on the right toolbar to size and flip your stamp picture before placing it on your page.
12. To do this **click on your selected stamp** → **click on one of the tool icons** → **click on your picture to place your stamp.**
13. If you would like to insert a moon → click on the **stamps tool** on the **left toolbar** → **select a moon or a planet** and click to place it on your page.
14. If you have inserted a stamp picture that you do not want, click on the **undo icon** (left toolbar).
15. To add text to your picture, click on the **Text "abc" tool** (left toolbar) → **click on a text style** (right toolbar) → **click on your page** and type your name. Press Enter when you have finished.
16. To save your picture, click on the **save icon**.
17. You will see a confirmation message at the bottom of the screen confirming that your image has been successfully saved.
18. To print your document, click on the **print icon**.
19. Exit by clicking on the **Quit icon**. A window will pop up confirming that you wish to **quit the programme** → **Yes**





Teacher Feedback Form

This Teacher Feedback Form serves as a

- ❖ Personal record of work covered with your class
- ❖ Feedback form about this lesson to your management
- ❖ Feedback form about this lesson to your colleagues

Place a relevant comment in each of the boxes.

Volume Number			
Learning Unit			
Integrated Lesson			
Educational Game			
Touch typing / Keyboard Skills			
Tech Talk			
I found this Learning Unit to be...			
Engaging?			
Relevant?			
Significant?			
Challenging?			
General Comment			
Name		Date	








This **Teacher Feedback Form** may be photocopied or found in digital format with the Educator Resources and at www.computers4kids.co.za

Self Assessment Form

This Self Assessment Form is a

- ❖ Record of my work covered during class
- ❖ Record of my progress

Place a tick (✓) in the correct boxes.

Volume Number				
Learning Unit				
About this Learning Unit ...				
	Before I did this task I knew...			
	I finished my task well...			
Q → A	I answered the questions...			
	I took pride and care in my work ...			
	After I did this task I knew...			
I have learnt to be...				
Caring		Principled		
Communicative		A Risk Taker		
Reflective		A Thinker		
Inquiring		Well-balanced		
Knowledgeable		Open-minded		
I have also learnt...				
Name			Date	








This **Self Assessment Form** may be photocopied or found in digital format with the Educator Resources and at www.computers4kids.co.za

Peer Assessment Form

This Peer Assessment Form is a

- ❖ Report to your peer about their work
- ❖ Record of your thoughts about your peers work

Place a tick (✓) in the correct boxes.

Peer's Name				
Volume Number				
Learning Unit				
About this Learning Unit ...				
	Did he/she finish the task?			
	Did he/she do the task well?			
Q → A	Did he/she answer the questions?			
	Did he/she take pride in their work?			
	Have you learnt anything new from your friends work?			
I think my friend has learnt to be...				
Caring		Principled		
Communicative		A Risk Taker		
Reflective		A Thinker		
Inquiring		Well-balanced		
Knowledgeable		Open-minded		
I feel my friend has also learnt...				
Name		Date		

This **Peer Assessment Form** may be photocopied or found in digital format with the Educator Resources and at www.computers4kids.co.za

