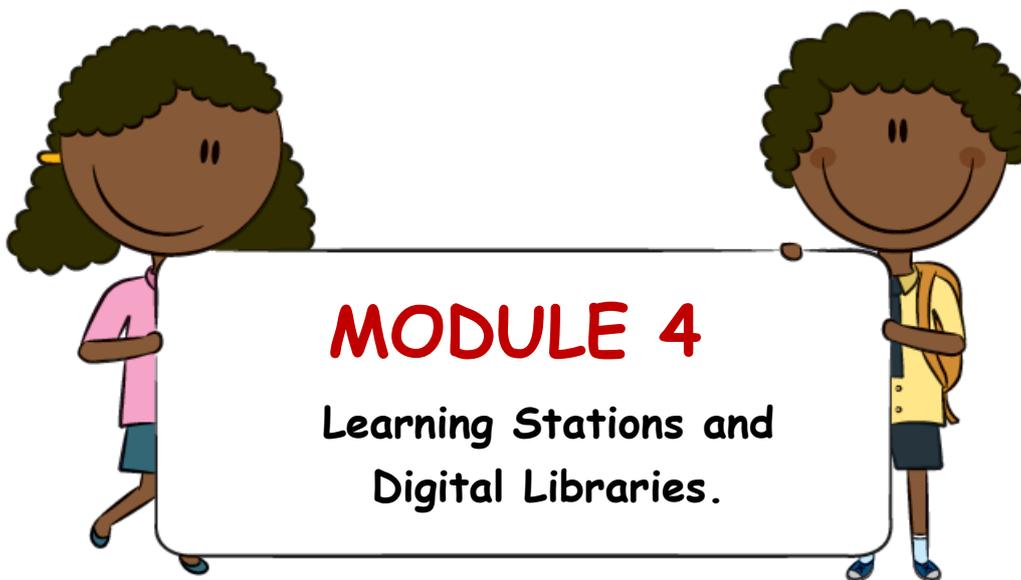




ICT4RED



### Outcomes

**By the end of this session you will be able to:**

1. Use the Learning Stations teaching and learning strategy in your classroom.
2. Earn the LEARNING STATIONS and EDUCATIONAL CONTENT CREATOR BADGES.
3. Explain what a digital library is.
4. Understand the classroom potential of various digital resources in a digital library.
5. Explore the use of a mobile device:
  - a. Access digital library content: eBooks, Electronic tutorials, Simulations, Video and Podcasts.
  - b. Manage folders and resources.
  - c. Write journal entries.
6. Use the following suggested apps:  
*Amelia Lite, Aldiko eBook Reader, Cupcake Maker, Memoires, Native Audio and Video Player, Origami tutorial.*



## Introduction

 5 min

During this module you will use Learning Stations as a teaching and learning strategy while exploring what a digital library is. You will use resources which are available on your mobile device as well as on the school server.



## Activity 1

### Reflection

 10 min

Remember that all reflection activities will count towards a REFLECTIVE PRACTITIONER BADGE. Make sure that your *Memoires App* shows the time line of all your reflective entries.



Reflect in your groups on what you have learned and applied since the previous session. You may need to consult the reflection notes you made in your *Memoires app*.

- What worked and what did not work? Why?
- How did you use your mobile device?
- Explain how you used the Role Play strategy in your classroom.
- How does the Role Play strategy support 21<sup>st</sup> Century Learning and teaching?



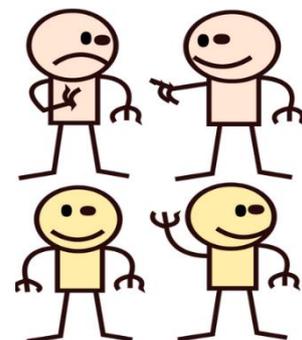
## Activity 2

### Learning stations

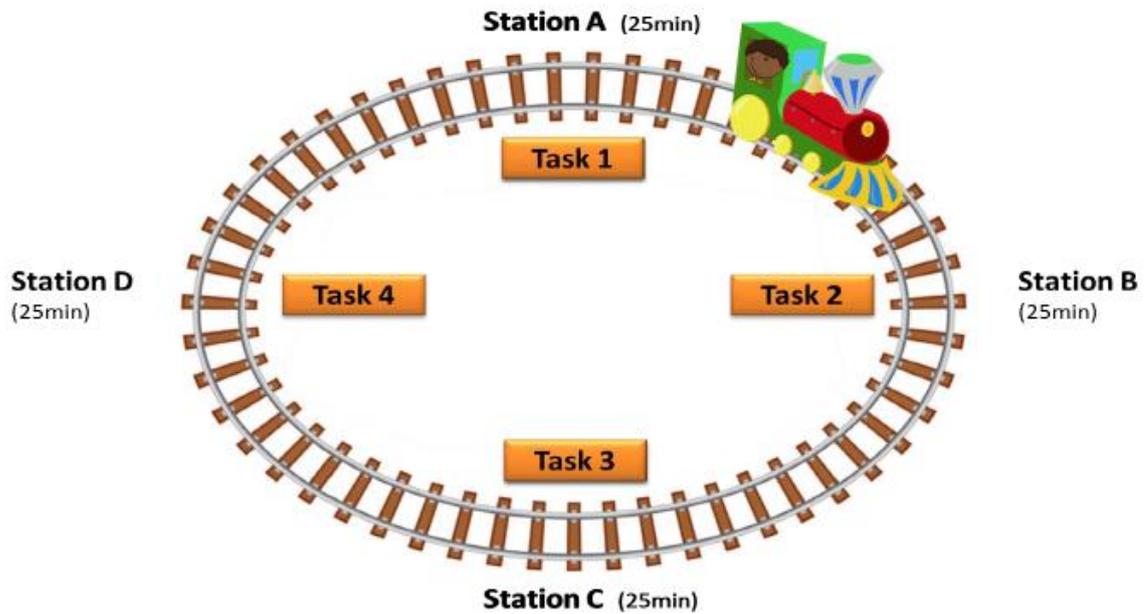
 10 min

In this activity you will experience learning stations as a teaching strategy:

Learning stations are places in the classroom where groups of learners work collaboratively on different tasks simultaneously to learn/revise content and practice skills related to the topic. The groups of learners rotate from station to station until each group has completed all the tasks.



1. Make sure that your group does not consist of more than 4 members.
2. Each group relocates to a separate learning station. At each station you will find the task instructions to follow. You may be asked to access the instructions from a mobile device.



3. You will complete tasks that will be posted at each of the four learning stations are on the following pages. If you are part of a large class group, there will be two or more learning stations for each task so that the members in each group do not exceed four.



## STATION A: Digital Libraries – eBooks. 25 min

At station A you will explore eBooks as part of a Digital Library. You will work with three different types of eBooks, an interactive ebook app, an Epub eBook and an PDF ebook.

An **electronic book** (variously: e-book, eBook, e-Book, ebook, digital book, or even e-edition) is a book-length publication in digital form, consisting of text, images, or both, readable on computers or other electronic devices. Although sometimes defined as "an electronic version of a printed book", many e-books exist without any printed equivalent. Commercially produced and sold e-books are usually intended to be read on dedicated e-book readers, however, almost any sophisticated electronic device that features a controllable viewing screen, including computers, many mobile phones, and all smartphones can also be used to read e-books.

Source: <http://en.wikipedia.org/wiki/E-book>

- a. Open the app called *Amelia Lite*. Read and listen to the interactive story aimed at foundation phase learners. Make sure that you press the dotted bubbles and forward button.



The *Amelia Lite* app is an example of a single interactive eBook app.

While interacting with the story think about the following questions:

- For what situations will an interactive ebook be most suitable?
- What are the advantages and disadvantages of using interactive ebook apps?

- b. Open the *Aldiko eBook reader* app and choose one or two of the eBooks that you find there e.g.



- c. Use the *ES file Explorer* app to open the Mathematics textbook called **Everything Maths.pdf** from your Module 4 → Resources → Station A folder.

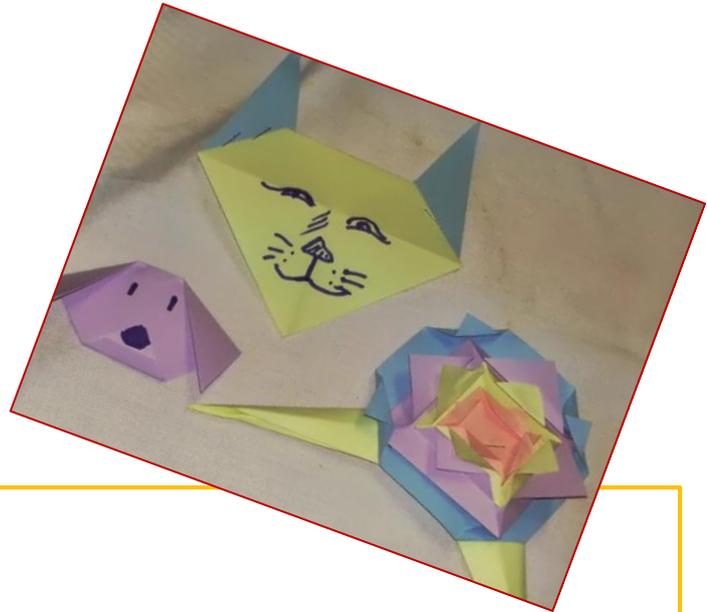
Take some time to explore these different types of eBooks and note the differences. Turn to the table on **page 8** and complete the section on eBooks.

## STATION B: Digital Library – Electronic Tutorials.

 25 min

At **Station B** you will explore electronic tutorials as part of a Digital Library.

- Open the app called *Origami Tutorial* and choose a shape to fold using the square paper, pens and scissors at the station.
- Each group member should try to fold **the same shape**. The facilitator will choose the best folded shape of each group. The winning group will be identified when all the groups have completed all the activities.
- When you are done turn to the grid on **page 8** and complete the section for Electronic Tutorials.



Notes

## STATION C: Digital Library - Simulations and Podcasts.



At station C you will explore Simulations and Podcasts as part of a Digital Library.

- a. Use the *native audio player* app to listen to the Learn Out Loud **podcast tutorial** on your tablet. You can find it in your Module 4 resource folder → Station C. You will be learning two words. Remember these two words as you are going to report back at a later stage. When you are done turn to the grid on **page 8** and complete the section on podcasts.



A **podcast** is a type of digital media. The word is a neologism derived from “broadcast” and “pod”. Audio podcasts are often listened to on the iPod and other portable media players. <https://en.wikipedia.org/wiki/Podcast>

- b. In this first activity you will be using the *Cupcake Maker* simulation app to create a delicious looking cupcake (do not eat it). Take a screenshot or photo of the final cupcake. The picture of your cupcake will be entered into a competition to find the most delicious looking cupcake. When you are done turn to the grid on **page 8** and complete the section on simulations.



A simulation is the imitation of the operation of a real-world process or system over time. Simulation is used in many contexts, such as simulation of technology for performance optimization, safety engineering, testing, training, education, and video games. Often, computer experiments are used to study simulation models. Simulation is also used with scientific modelling of natural systems or human systems to gain insight into their functioning.[2] Simulation can be used to show the eventual real effects of alternative conditions and courses of action. Simulation is also used when the real system cannot be engaged, because it may not be accessible, or it may be dangerous or unacceptable to engage, or it is being designed but not yet built, or it may simply not exist. <https://en.wikipedia.org/wiki/Simulation>

**NOTE:** How do simulations differ from tutorials?

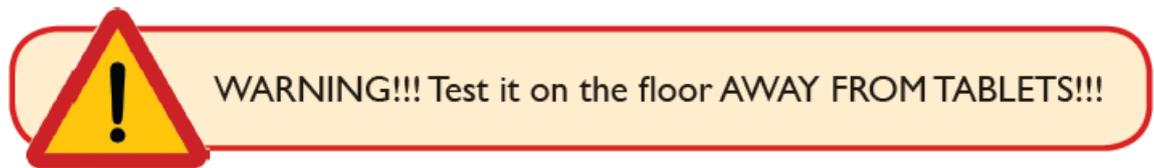
## STATION D: Digital Library – Videos 25 min

A video is an electronic medium for the recording, copying and broadcasting of moving visual mediums. <https://en.wikipedia.org/wiki/video> .

- a. Use the *Native Video player App* to watch the video “**Simple Water Pump from a Straw – Science Experiment**”. You can find it in your Module 4 resource folder → Station D.



- b. Build a pump with the supplied materials. Test whether the pump works. The pumps of each group will be tested at the end of the session. Make sure that you put it in a safe place. Do not throw the pump away.



- c. When you are done turn do the grid on **page 8** and complete the section for video.

 **Notes**



# Digital Library Discussion Grid

	General Comments (How did I experience these digital library tools)	How can I use these different tools in my classroom?
eBooks		
Electronic Tutorials		
Podcast		
Simulations		
Videos		



**Notes**



This is an example of formative assessment where you reflect on what you experienced and how the knowledge can be used. The assessment tool is a grid.



## Activity 4

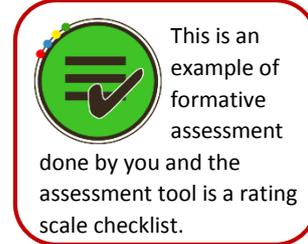
# What did we learn?



30 min

### Evaluation of learning stations.

1. Use the *Kingsoft Office* app to open an electronic copy of the **Learning Station Strategy Evaluation** in the Module 4 resource folder. Complete the form individually by inserting X in the applicable block.



	Criteria	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	The instructions at each of the learning stations are clear.					
2	The task at each of the learning stations was engaging and interesting.					
3	At each station the group members participated collaboratively.					
4	I feel we had enough time to complete and discuss the activities at each station.					

2. Have a brief class discussion about the information shared in the digital library discussion grid on page 8.
3. The teacher/facilitator will adjudicate who folded the best origami shape, simulated the most delicious cupcake and built the best performing water pump.



## Notes



## Homework



25 min

1. Read the following article in your Module 4 resource folder.
  - **What are learning stations?**

2. Use the *Memoires app* to reflect on:
  - a. What worked and what did not work? Why?
  - b. How can I use the learning station teaching and learning strategy in my classroom?
  - c. How does the Learning Station Strategy support 21<sup>st</sup> Century Learning and Teaching?



All reflection activities will count towards a REFLECTIVE PRACTITIONER BADGE Make sure that your *Memoires app* shows the time line of all your reflective entries. (See the tutorial **How to use the *Memoires app* for reflection** and timelines in your How-to resource folder).

3. Do the LEARNING STATION STRATEGY BADGE  
Use the following grid to design your Learning stations. You will also find it in electronic format in your Module 4 resource folder.

TOPIC: .....

GRADE .....

	Station Instructions (what learners need to do at every station).	Handouts and Materials (The information and materials needed to complete the task)
Station A		
Station B		
Station C		
Station D		

4. Do the CONTENT CREATOR BADGE.
5. Complete the outcomes checklist on page 12.

## Compulsory Badges

Must do



### LEARNING STATIONS BADGE



#### Instructions:

Design a Learning Stations experience for your learners in which the use of mobile devices feature at least at one station.

#### Assessment criteria

	What to do	What to provide	
1	You have completed your Learning Stations design grid in electronic format	A photo of a written design grid or a completed word doc	
2	Your instructions for each learning station are clear.	Design grid	
3	You have created or provided material for each learning station.	A photo of each station	
4	You have implemented the learning station strategy with your learners.	A photo of your learners busy with a learning station activity.	
5	You have completed an electronic Learning station evaluation form	The completed evaluation form.	

**This badge is a compulsory badge that must be completed in order to graduate.**

#### Instructions:

Design and create multimedia educational content to use in the classroom. This may be a video, podcast, eBook, document or slideshow. The content must support a topic in the curriculum.

### EDUCATIONAL CONTENT CREATOR BADGE



Must do



#### Assessment criteria

	What to do	What to provide	√
1	You have designed and created a multimedia tool that is aligned with the curriculum.	This may be a video, podcast, eBook, document or slideshow.	
2	Your name, subject, grade and topic are clearly indicated.	Text in or on multimedia object.	



## Outcome Checklist

I can do the following:		√
1	Use the learning station teaching strategy in my classroom.	
2	Do the LEARNING STATION and EDUCATIONAL CONTENT CREATOR BADGES.	
3	Explain what a digital library is.	
4	Demonstrate the potential of various digital resources in a digital library.	
5	Access and use the following digital library content from my mobile device and a server:	
	i. eBooks	
	ii. Electronic Tutorials	
	iii. Simulations	
	iv. Podcasts	
	v. Videos	
6	Manage folders and resources.	
7	Use the following Apps:	
	i. <i>Kingsoft Office</i>	
	ii. <i>Amelia Lite</i>	
	iii. <i>Aldiko Reader</i>	
	iv. <i>Cupcake Maker</i>	
	v. <i>Native Audio Player</i>	
	vi. <i>Native Video Player</i>	
	vii. <i>Memoires</i>	
	viii. <i>Camera</i>	



## Notes



This course has been designed for classrooms where all learners and teachers have access to their own mobile devices. In contexts where this is not possible, you will need to reflect on how you will use your particular technology provisions within the given teaching strategy.

### Examples

You can use the **Learning Stations Strategy** without any embedded technology. For instance to give learners a hands-on experience of specific topics or to teach them certain skills.

The main thing is to make sure that they learn, use or do something new relating to your content or topic at each of the stations

- **Foundation Phase:** Set up different stations where learners can paint, use pencils and listen to a story.
- **History:** Set up different historical figures at each station with information about them to explore.
- **Revision:** Set up a different topic to be revised at each station.

### One device

If you only have one device, for example if only the teacher has a device, you can still use it to bring technology into the jigsaw strategy.

- Place the mobile device at one of the learning stations with that station's material on it (e.g. a video). The rest of the stations can have non technology related tasks (e.g an article to read or following a printed tutorial).
- Teacher can use the one device to record what the groups are doing at the various learning stations.

### 5 or more devices

If you borrow 4 more devices from your colleagues or have the use of a Mobikit/trolley of devices, you can place a device with the learning station material at every station. See the following examples:

- Station 1: A podcast to listen to (information)
- Station 2: A video to look at, pause, and continue (to learn new skills in the case of a tutorial).
- Station 3: A simulation (to learn new skills as in dissecting a frog or a science experiment).
- Station 4: An eBook or interactive eBook to engage with information.

### 1 to 1 device

This is the ideal scenario for embedded technology and ideal where each member must try the skill on his/her device.

- The instructions are placed at each station on how to access the relevant material on each learner's device and what they have to do.
- Each group member tries the skill or reads the topic on their device and discusses it in their group.
- Each group member can use their device to create an artefact following the instructions at the station.
- Learners can use their devices to record what is happening at each station.