A Byte of...

iCompute

iGuess Beasts

QR Code activity adapted for The Hour of Code™

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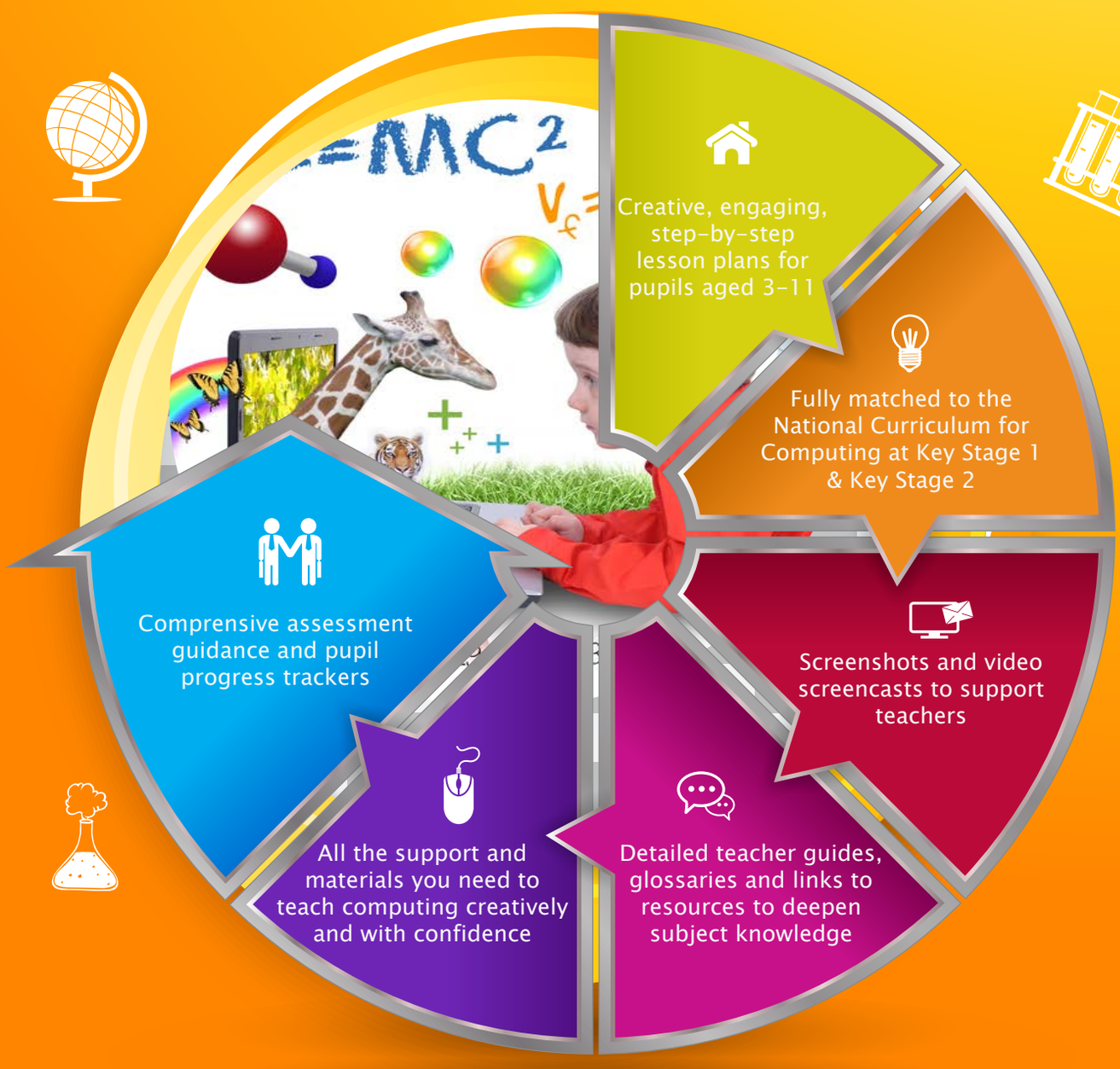

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iGuess Beasts

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Pupils aged 3-5

Overview

This unit, adapted for the Hour of Code, introduces the children to QR (Quick Response) Codes.

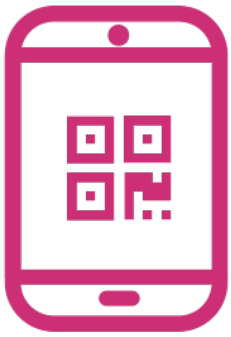
They will use tablets to scan QR Codes and guess the minibeasts from a given habitat.

Hardware

Computers with built in cameras

Software/Tools

Suggested software & apps (see Preparation)



Early Learning Goals

ELG04 – Moving & Handling
Using devices

ELG13 – The World
Habitats and living things

ELG11 – Number
Counting, reading and writing numbers

ELG15 – Technology
Using tablets & scanning QR Codes

Assessment

P5 contains assessment guidance

Preparation

- Read the activity plan
- If you do not already have a QR Code Reader installed on pupil devices, install one on each
- Print the habitat QR Codes (ResourceFS.27) and place them around the environment you are using – preferably outside with each code next to a corresponding habitat (Eg. the soil QR Code next to earth/soil).

Resources

- Book out any devices you may need, if necessary
- Ensure that any links to websites are not blocked
- Ensure that any software and/or apps you will be using have been installed on all computers/devices
- Support materials for each lesson – entitled: Resource <year.unit.lesson> (eg. ResourceFS.27)

Links

Possible tools, software and apps you use…

QR Reader/Creator app (iPad):
QR Reader/Creator iPad app:
http://icomp.site/qr-scanner-creator

QR Creators:
QR Code Generator – Browser:
http://icomp.site/qr-code-generator

QR Code Extension for Chrome:
http://icomp.site/chrome-qr-code-extension

QR Readers:
Android - http://icomp.site/android-qr
iOS - http://icomp.site/ios-qr
Web - http://icomp.site/web-qr

EPIC Teaching Resources:
http://icomp.site/epic-minibeasts-habitats

Video
http://icomp.site/minibeasts

Animated Movie
http://icomp.site/epic-movie

Updates

If any links are not working, obtain the latest version of this plan using your iCompute login.

iGuess Beasts

Resources

Computers/tablets with in-built cameras; QR Code Reader (Links); QR Code Generator (Optional); ResourceFS.27 (printed and placed around an environment – preferably outside); TeacherFS.27; WorksheetFS.27

Objectives

- To understand that information can be represented by codes
- To use devices to scan QR codes and interpret information

Vocabulary

Code; QR Code; information; scan

1

- Show a QR Code to the children ResourceFS.27 and ask if they have ever seen these funny squares anywhere
- Explain that this series of dots or squares is a **code** and contains **information**
- The information is difficult for people to read but computers can do it easily
- To find out the information hidden in the QR codes, you need to use a computer to **scan** the code
- The computer can then **decode** it into words we can understand
- Model how to use a device with a QR reader app installed to scan a QR code
- Show the children how the code is turned into words and read them to the class

ELG04 – Moving & Handling
Using devices

ELG13 – The World
Habitats and living things

ELG11 – Number
Counting, reading and writing numbers

ELG15 – Technology
Using tablets & scanning QR Codes

2

- Explain that today, the children will be finding QR codes around the classroom/hall/playground etc. and scanning them to play a guessing game
- Each code will tell them about a habitat that a particular mini-beast lives in
- If necessary, work with the class to refresh their understanding of minibeasts and their habitats – you could use resources created for the animated film EPIC for support (Links)
- Read the decoded text from the QR code again
- Can the children guess which mini-beast likes to live in this habitat?

3

Core

- Organise the children into pairs and give each pair a device with a built-in camera and a QR Reader software/app installed (Resources)
- The children work together to find all QR Codes
- They scan each code to reveal a habitat
- They then use WorksheetFS.27 to write the number of the mini-beast they guess lives in that habitat
- NB: TeacherFS.27 contains QR Code matched to habitat and minibeast images

4

Plenary

- Gather back and talk about the activity
- What was easy/difficult about the task? Why?
- What have the children learnt about mini-beasts?
- Which mini-beast likes to live near water? Under rocks/stones? Etc,
- Can the children think of any other ways you could use QR Codes?
- What are the benefits of using QR Codes? E.g. they allow you to quickly access information

Harder

- Challenge some children to find out about more minibeasts
- What is their habitat?
- Use a QR Code Creator to write about the habitat and create a QR Code for it
- Then challenge another pupil to scan the code and guess the minibeast

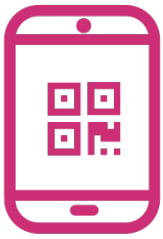
Easier

- The children could be grouped appropriately to enable them to support each other in the task
- Some children could be given fewer QR Codes to scan

nextSteps

Extension/Enrichment

- Go on a hunt around the playground or local environment identifying as many minibeasts as the children can find
- The children then photograph/draw the habitat where they found them
- Watch 20th Century Fox 'Epic' which features animated mini-beasts in a quest to save their habitat
- The children could create their own secret messages in text using a QR Creator app (Links)
- They generate a QR code, print it and pass it to friend for them to scan and read



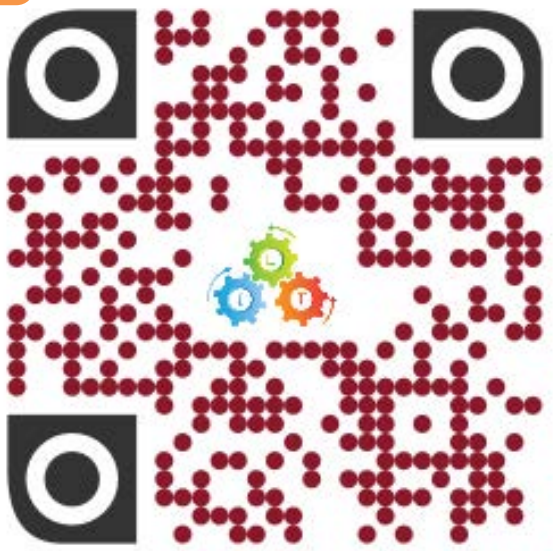
Assessment

Record of progress Write names in the appropriate box, with jottings on children on children whose attainment differs markedly from their group.	Expectations What children know, understand and can do
Some children will have not made as much progress and will:	✶ Understand that computers can read QR codes ✶ Understand that scanning a code shows information ✶ Use a device to scan QR codes, sometimes with support
Most children will:	✶ Understand that QR codes contain information ✶ Know that computers can tell us the information hidden in QR Codes ✶ Use a device to scan QR codes, not always accurately ✶ Understand that QR codes can be created from text
Some children will have progressed further and will:	✶ Know that humans cannot read QR Codes but computers can ✶ Confidently use devices to scan a number of QR codes with accuracy ✶ Use a QR Creator App to produce QR Codes from text

Habitat QR Codes

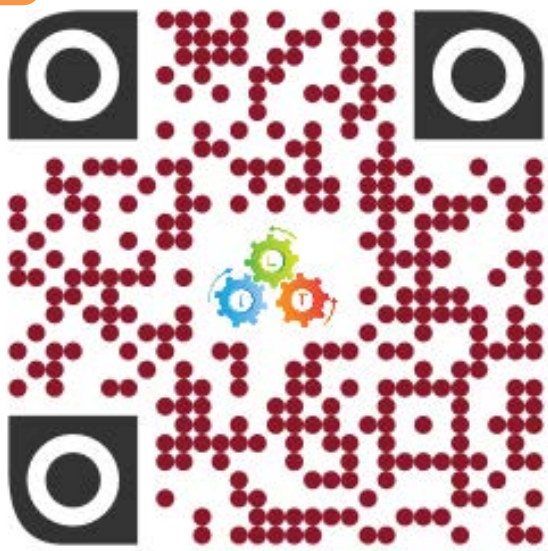
Rocks

1



Grass

2



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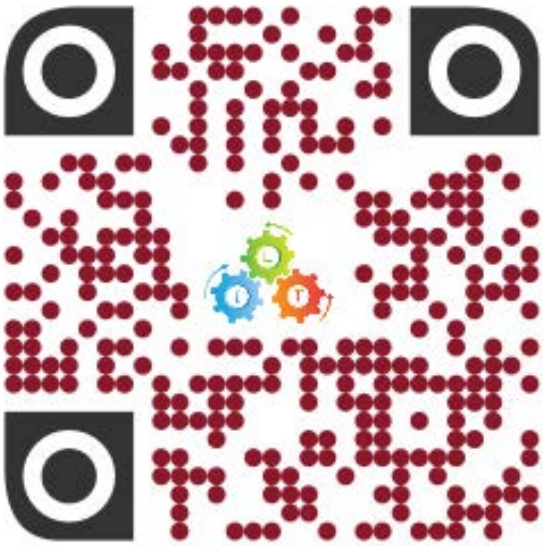
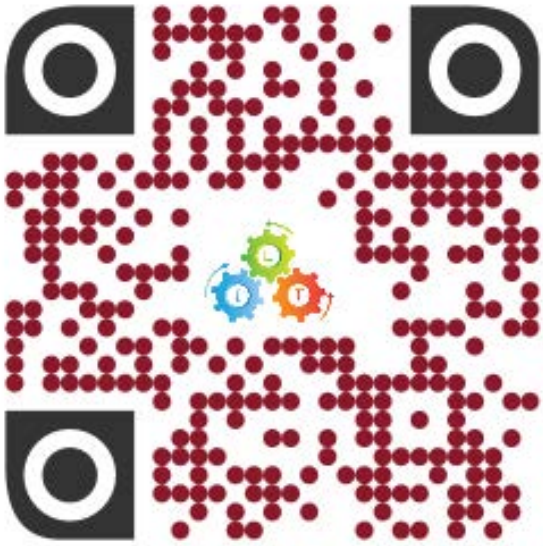


Wood/Logs

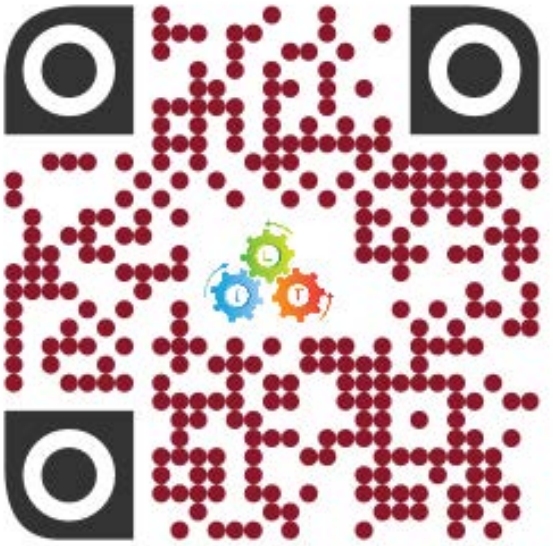
4



Earth/Soil

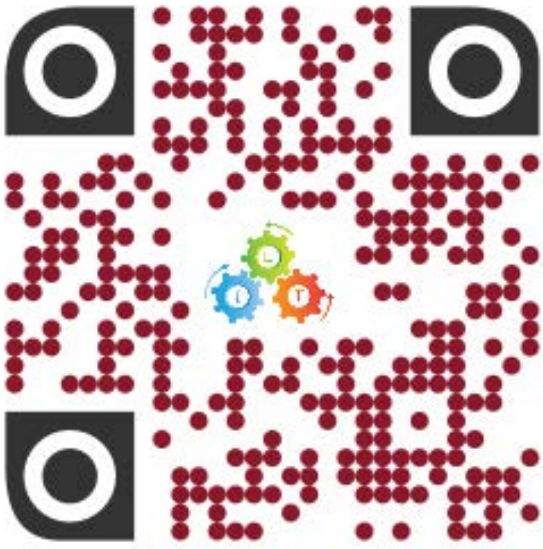
Habitat QR Codes

5



Plants/Trees

6



Water

Name:

Minibeast Worksheet

Date:

Write the number of the QR Code habitat next to the minibeast that lives there

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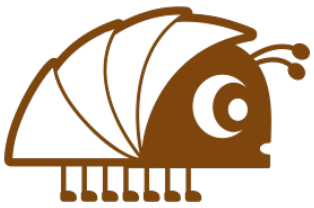
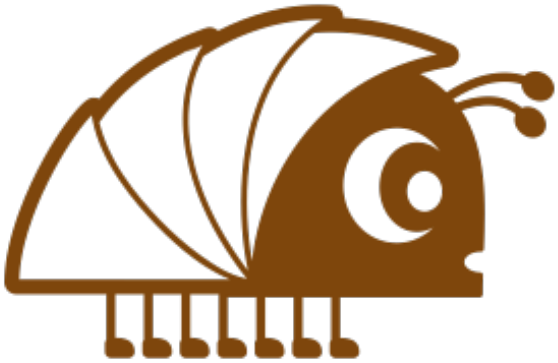
☐ 	☐ 	☐ 

Habitat Answers

Rocks

Grass

Wood/Logs



Earth/Soil

Habitat Answers

Plants/Trees

Water

iCompute

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