

LIVING THINGS IN THEIR ENVIRONMENT:

This pack consists of a collection of 28 screens giving a range of activities on life processes, food chains, microbes, adapting to the habitat and following keys.

Although this pack supports most of the requirements for KS2 Living things in their environment (see 'The pack and the curriculum' below), it should be used in conjunction with other elements and lead to practical work and / or further research using IT wherever possible.

THE OPENING SCREEN:



The opening screen provides a choice of buttons. The buttons link to the main topic areas which may be opened in any order.

1. Click on this button for an activity on life processes.
2. Click on this button for information about the buttons used on the screens.
3. Click on this button for an activity on food chains.
4. Click on this button for an activity on how energy passes through a food chain.
5. Click on this button for an activity on living things in their environment.
6. Click on this button for an activity on following keys.
7. Click on this button for an activity on counting plants.
8. Click on this button for an activity on micro-organisms.

CONTENTS:

Children should be encouraged to click the mouse on the various buttons and on text and graphics with speech support.

1. Life processes - a labelling activity.
2. Plants need light – putting pictures in the right places and labelling them.
3. Food chains - putting pictures in the right places.
4. More food chains - completing the food chains or forming new ones.
5. Feeding relationships - labelling and free writing.
6. A number pyramid - completing and labelling the pyramid
7. Another number pyramid - completing and labelling the pyramid.
8. Making a number pyramid - using blocks to create a number pyramid.
9. A food web – forming food chains and free writing.
10. Another food web – labelling and free writing.
11. How energy flows through a food chain - labelling and free writing.
12. The fate of the rest of the energy - labelling and free writing.
13. Micro-organisms - sentence construction.
14. Some micro-organisms cause disease - labelling and free writing.
15. Useful micro-organisms - a labelling activity.
16. Making compost - diagram completion and free writing.
17. Living things in their habitat – grouping organisms and free writing.
18. Adapting to the habitat – matching descriptions with pictures.
- 19 - 26. What is it? - using keys to identify organisms.
27. How many are there? - a sampling and recording activity.
28. How many are there? - a sampling and recording activity.

THE SCREENS:

The screens provide a variety of activities including dragging, labelling, sorting and investigative activities. Many may lead to related classroom activities e.g. ‘hands on’ practical work.

The screens are deliberately basic and uncluttered where appropriate with hidden popups / panels providing additional information, graphics and support.

All the screens have word or picture panels or both which are accessed via buttons. They also have task, answer and research panels, the latter being an additional feature for the KS2 titles.

Children may add to the screens by using the word banks and resource (picture) panels. They may follow the instructions provided on clicking the task button or modify the

screens according to their needs. They may check the answer using the answer button and use the arrows to move back and forth between screens.

Software speech is used in the Textease format. Click on the text, speech icons or hot spots where appropriate to hear it spoken.

MY WORLD AND TEXTEASE FORMATS:

This pack requires My World for Windows, My World 3 or Textease to run. Both formats are provided on the CD leaving the choice to the teacher.

The My World format of the software self installs - the Textease format must be copied onto the hard disk manually. The My World installer installs the Welsh font Ysgol 2. - Textease users should install 'Ysgol 2' by double clicking on the fonts folder and following the instructions on the screen.

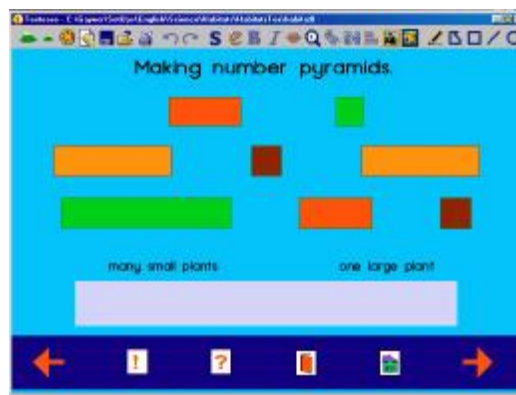
My World and Textease screens do not self correct. Some teachers may see this as a disadvantage. The advantages however is that children are given an opportunity to make their own minds up or discuss their ideas with others. Their outcome may be printed allowing My World and Textease screens to be used for assessment where appropriate.

THE BUTTONS ON THE SCREENS:

The buttons on the My World and Textease formats of two different screens are shown below.



1 2 3 4 5 6 7 8 9 10 11 12
MY WORLD FORMAT



1 2 6 5 11 12
TEXTEASE FORMAT

The buttons are listed from left to right. See the Textease handbook for the functions of the buttons on the top bar of the Textease format screens.

1. The back button - click on this to go to the previous screen.
2. The task button - click on this for a suggested task.
3. The text button - click on this to create new text.
4. The word button - click on this for a word list or for beginnings and endings of sentences.
5. The research button – click on this for further information.
6. The help button - click on this and on the hot spots within the help panel for support.
7. The resource button - click on this for some useful pictures.
8. The scaling down button - click text or graphics on this to reduce their size.
9. The scaling up button - click text or graphics on this to increase their size
10. The bin - click text or graphics on this to delete them.
11. The home button- click on this to return to the opening screen.
12. The forward button - click on this to advance to the next screen.

THE PACK AND THE CURRICULUM: The pack supports many of the National Curriculum requirements for Key Stage 2 relating to Living things in their environment and some aspects of the KS3 syllabus to enable gifted and talented pupils to make further progress.

KEY STAGE 2 - SC2 Life processes and living things: - Living things in their environment:

Variation and classification:

4a) to make and use keys.

4b) how locally occurring plants can be identified and assigned to groups.

4c) that the variety of plants and animals makes it important to identify them and assign them to groups.

Adaptation:

5b) about the different plants and animals found in different habitats.

5c) how animals and plants in two different habitats are suited to their environment.

Feeding relationships:

5c) to use food chains to show feeding relationships in a habitat.

5e) how nearly all the food chains start with a green plant.

Micro-organisms:

That micro-organisms are living organisms that are too small to be seen and that they may be beneficial or harmful.

KEY STAGE 3 - SC2 Life processes and living things: - Living things in their environment:

Variation:

4b) to classify living things into major taxonomic groups.

Adaptation and competition:

5b) that habitats support a diversity of plants and animals that are interdependent.

Feeding relationships:

5e) about food webs composed of several food chains, and how food chains can be quantified using pyramids of numbers.

THE GRAPHICS:

The graphics used are simple purpose made vector drawings for three reasons:

- a) most are basic enough for children to copy them on paper where appropriate.
- b) they support the program without being a distraction in themselves.
- c) they require less memory than more sophisticated graphics / illustrations.

INCLUSION:

The screens are deliberately basic and uncluttered with hidden popups / panels providing additional information, graphics and support. Teachers / pupils are able to customize and save the screens if required.

Generally speaking, there is little visible text other than the headings on the screens. This reduces the amount of initial explanation / signing required on introducing a new topic to pupils with hearing problems.

Visually impaired pupils may resize moveable text or graphics using the maximize / minimize buttons in the My World format or by selecting then dragging one of the corners' in the Textease format.

The Textease format of the software has software speech support on all the text panels to help children who find the written word difficult. Text on the screens may be selected and heard if necessary using the 'lips' icon on the toolbar.

The research panels may be shortened and scrolled to reduce the amount of text visible at any time to help children who find a large block of text daunting.

ABILITY RANGE / DIFFERENTIATION:

The screens have been designed for use by children of different abilities. Buttons allow them to seek help or further information, so the older / more able pupils may work independently.

Many of the screens have text frames. The provision of text buttons, word banks, support panels and research books provide the requirements for **differentiation by outcome**. The text button (pencil in the My World version or the 'I band' in the Textease version) allow teachers / pupils to write their own text. The research books provide a source of information for those pupils who can cope with free writing. The beginnings and endings of sentences or labels provided in the word banks are for those who cannot cope with free writing.

Children may drag labels and other information to the screens or write their own text. They may use their imagination and customise existing screens or use the self-design screens (see 'Teacher Control' below).

SUPPORT: The help button opens a support panel, which may be shared by several screens within the same topic area. The support may be in diagram or text form and clicking on hot spots within the help panel may open text windows or further help panels.

NEW SCREENS:

Each topic area has one or more 'New screens' (often blank), which are accessed by clicking on the 'new screen' button within the relevant 'task panel'. These new screens are particularly useful when used with related screens having fixed graphics / text and share the same buttons as the latter.

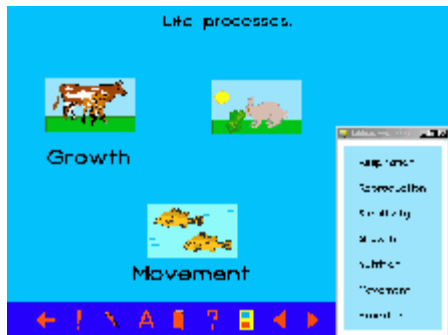
Some of the new screens in this pack are listed under 'Teacher control' below together with some suggestions on their use

TEACHER CONTROL:

At first sight, the screens may not appear to have a great deal of teacher control. However, any moveable object on a screen, be it text or graphic may be deleted or enlarged, and new text may be added. The customized screen may be renamed and saved for future use.

The 'self-design option provided by the new screens allows teachers to adapt screens for pupils with special needs (see overleaf), to carry out group activities or to extend topic areas further. The new screens may be customised then saved for use as labelling exercises for assessment.

The example overleaf shows three variations of the 'Life processes New Screen' and serves to illustrate the point that the degree of teacher control is only limited by the imagination of the teacher.



LABELLING EXAMPLES OF LIFE PROCESSES



A SIMPLIFIED SENTENCE BUILDING EXERCISE



CREATING A FACT SHEET ON LIFE PROCESSES

Other New Screen topics in this pack include:

- a) **Plants need light to stay alive** – this screen could be used to create assessment exercises / make fact sheets or promote group / whole class discussion. It could be used in conjunction with a practical activity on growing plants under different light conditions to develop planning, prediction and recording skills. Children could grow cress seedling in egg shells or potato tubers in shoe boxes under different light conditions.
- b) **Feeding relationships** – this screen could be used to create assessment exercises / make fact sheets or promote group / whole class discussion. As the resource panel provides a large number of graphics, this screen could be used as a group exercise giving a valuable opportunity for discussion on ‘pooling’ the results.
- c) **Energy flows through a food chain** – this screen could be used to create assessment exercises / make fact sheets or promote group / whole class discussion. It could be used for discussions on the relationship between the different organisms in a food chain and the amount of energy available to sustain the food chain.
- d) **Micro-organisms** – this screen could be used to create assessment exercises / make fact sheets or promote group / whole class discussion. It could be used to record the results of practical activities on useful micro-organisms e.g. making bread or yoghurt (**perhaps at different temperatures, after first making a risk assessment**). Such activities could involve planning, predicting and recording skills.
- e) **Making a key** – this screen could be used to make a ‘graphics only’ key to help children who find the written word difficult understand the principles of ‘either / or’ keys.
- f) **How many are there?** – this screen lends itself to outdoor sampling activities using different types of quadrats. This could involve planning, counting, measuring and recording skills.

INTERACTIVE WHITEBOARDS:

The screens in this pack have been redesigned for more efficient use with Interactive Whiteboards and are ideal for individual or group work and whole class teaching.

FORMATS:

The pack includes the screens in MY WORLD format and TEXTEASE format plus the Welsh font 'YSGOL 2'.

The MY WORLD format requires My World for Windows or My World 3.
The TEXTEASE format requires Textease.

INSTALLATION:

The My World format self installs. Textease users must copy the HabitatsTex folder to the hard drive, then create a shortcut on the desktop to the opening file – 1Habitat.

FONTS:

The Welsh font Ysgol 2 has been used on the screens by kind permission of the 'Micro-electronics in Education Unit for Wales' (MEU). www.meu.cymru.co.uk

The My World installer should install 'Ysgol 2. Textease users should click on the exe. file within the Fonts folder and follow the instructions to install 'Ysgol 2.

TECHNICAL SUPPORT:

Please contact Clic if you have any problems with the content of this program. Consult the My World help files for problems in running My World. Consult the Textease manual / help files for problems in running Textease.

PRICE AND LICENCE:

Prices and licences are subject to change without warning. Please check the details on our web site before ordering.

RELATED PRODUCTS:

Living things in their environment is part of the 10 pack **Clic Science Series**.

Other titles in the series are

KS1 Life processes and living things.

KS1 Physical processes.
KS1 Homes and houses (materials and scientific enquiry).
KS2 Green plants as organisms.
KS2 Humans as organisms.
KS2 Materials and their properties.
KS2 Forces and motion.
KS2 Light, sound & the Earth and beyond.
KS2 Electricity and power.

These packs are available individually or as two collections:

KS1 Starting science.

KS2 More science

FURTHER INFORMATION:

Screens and graphics by GAYNOR PERRY.

CLIC, BWTHYN Y GLYN, NANT Y GARTH, Y FELINHELI, GWYNEDD. LL56 4QB

Tel: 01248 671093 Fax: 01248 679295 email: info@clicsoft.co.uk

SOURCE OF INFORMATION GAYNOR PERRY. (from over 30 years teaching Secondary School Science in most of its subject areas and Biology to A level, including 20 years as a Biology A level Examiner).

Original version 1999

New version 2002 - 2003

© Clic (Clicsoft)

IMPORTANT:

The contents of the pack may not be copied or distributed to another individual or centre. Doing so would breach copyright and be illegal.

www.clicsoft.co.uk

FINALLY, YOUR FEEDBACK IS IMPORTANT TO US. PLEASE TELL OTHERS IF YOU LIKE OUR PRODUCTS. PLEASE TELL US WHAT YOU LIKE OR DON'T LIKE ABOUT OUR PRODUCTS.

