

Designing For The User

# Jessy The Cats Fun Things



An Interactive children's magazine website.

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**Interactive Media Level 1**

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## Abstract

I have been set the task to create a digital magazine website using 'Adobe Flash' and it must be aimed at a specific age group:

- Pre-teens (4 - 12)
- Teenagers (13-19)
- Young adults (20-30)
- Adults (30-50)
- 'Silver Surfers' (50 upwards)

It must display appropriate content for the intended audience and it must also show considered usability aspects to suit the age group that I choose.

I have chosen to design a magazine website aimed at children aged three to five years of age and it will be called 'Jessy the Cats Fun Things'.

My site will be designed as a fun interactive learning environment based around a fictional character 'Jessy the Cat'. All of the features on the site are aimed at providing entertainment and education through interactivity. These features as part of a magazine style website would be open to change on a regular basis.

## Goals

My goals for this project are:

To produce a fully working flash website.

To develop a fun learning environment for children aged three to five years old.

Encourage children to use the internet from a young age.

Introduce a number of website conventions to children at a young age.

Help children develop basic mouse control.

The aim of this project is to display a good knowledge of the user's requirements and to use appropriate designs, navigation systems and recognising constraints and conventions.

This site will be aimed at entry level website users and it is my goal to provide them with an easy to use site that will provide an entertaining experience, whilst also providing the user with knowledge that will help them in their future use of web based materials.

## User Experience

### Audience

I have chosen to create a website aimed at children, both boys and girls aged between three and five years of age. There are some important considerations when designing any website and the user should be at centre of all design decisions. In this case there are some particular considerations as it is impossible to design for an unknown user who has requirements that you don't understand.

### Audience Suitability

It is important to make sure that the look and feel of the site is appropriate for the intended audience.

*"Kids are keenly aware of their age and differentiate sharply between material that is appropriate for them and material for older or younger kids, however close in age they might be. At one website, a six-year-old said, "This website is for babies, maybe four or five years old. You can tell because of the cartoons and trains.""*

Jakob Nielson's Alertbox, April 14, 2002  
<http://www.useit.com/alertbox/children.html>

The site needs to be visually appealing to capture the user's attention, so I intend to use bright colours and animation on my homepage to create interest. I will also use an audio introduction as well as a short welcoming message to make the user feel welcome.

*"Extensive text was problematic for young children, who are just beginning to read. We observed severe usability problems when kids were inadvertently thrown into sections that were written above their current reading level. "*

Jakob Nielson's Alertbox, April 14, 2002  
<http://www.useit.com/alertbox/children.html>

The site will contain age appropriate learning methods including reading, counting and colouring.

### Audience Usability

I looked at some research by a well known usability expert 'Jakob Nielson', in which he had looked at the way children interact with websites. 'Jakob Neilson' exposes a popular myth about the way children interact with the internet, he says:

*"The idea that children are masters of technology and can defeat any computer-related difficulty is a myth. Our study found that children are incapable of overcoming many usability problems. Also, poor usability, combined with kids' lack of patience in the face of complexity, resulted in many simply leaving websites."*

Jakob Nielson's Alertbox, April 14, 2002  
<http://www.useit.com/alertbox/children.html>

Taking this onboard I realised that I needed to be very careful in my considerations whilst designing this site. Jakob Nielson's study unearthed some classic usability problems.

*“Several types of classic Web usability problems caused difficulties for the kids in our study:*

- **Unclear navigational confirmation** of the user's location confused users both within sites and when leaving them.
- **Inconsistent navigation** options, where the same destination was referred to in different ways, caused users to visit the same feature repeatedly, because they didn't know they had already been there.
- **Non-standard interaction techniques** caused predictable problems, such as making it impossible for users to select their preferred game using a "games machine."
- **Lack of perceived clickability** affordances, such as overly flat graphics, caused users to miss features because they overlooked the links.
- **Fancy wording** in interfaces confused users and prevented them from understanding the available choices.”

Jakob Nielson's Alertbox, April 14, 2002  
<http://www.useit.com/alertbox/children.html>

The main usability issue within children's websites seems to be navigation, I found another piece of evidence in a report by 'Larrisa Thomasson' that offers advice on making navigation systems easier to use.

*“Keep it consistent. The navigation system should be in the same place on every page and have the same format. Visitors will get confused and frustrated if links appear and disappear unpredictably.”*

Larisa Thomason, Senior Web Analyst, NetMechanic, Inc.

[http://www.netmechanic.com/news/vol7/design\\_no4.htm](http://www.netmechanic.com/news/vol7/design_no4.htm)

I will use a clear and consistent navigational system using appropriate language, the links will have roll over's to indicate to the user that the links are more than just flat background graphics. This is also an important web convention that will be useful to the user when visiting other websites. I will also use audio confirmation in the form of roll over invitational words and button noises that will activate when the user clicks a button to indicate that an action is taking place, in this case movement from one page to another.

The navigational systems design is not just about the look and the usability of the button links, the positioning of the navigational system within the overall design of the site is also very important. My research showed that the best place to position the navigational system is on the left hand side and towards the top of the overall design, this is highlighted by web usability expert Steve Krug in an exert from an interview, shown below.

*“We try to interpret things through a visual hierarchy. The navigation goes to the left and toward the top because it's at a higher logical level. The left side is conventional now. For the most part, if you don't have a reason to buck a convention, it's usually not worth it. Convention buys you a lot. If you follow the convention, you don't have to worry about whether people are going to get that part of your design or not.”*

<http://www.webtalkguys.com/article-usability-2.shtml>

Once the navigational system is designed and positioned there is still one more consideration regarding navigation. When you click a button link to navigate to a new page it is important to let the user know that they have arrived at their desired destination. This can be achieved by giving each page a clearly noticeable title, this is a view shared by web usability expert 'Steve Krug'.

*"There is actually one design rule for me. Each page should have a name, and the name should be fairly prominent at the top of the page. So if I click on a button that says "Interior Design", then when I get to the page that it takes me to, the words "Interior Design" should appear somewhere at the top of the page, in the same combination of size, position and boldness that makes it clear that this is the title for this whole page"*

<http://www.webtalkguys.com/article-usability-2.shtml>

There are many websites currently on the internet aimed at children and these vary greatly in content and design. The majority of literary, television, film and magazine media aimed at children in today's world have supporting websites with interactive elements that come in a massive array of different forms. The majority of these websites deliver their products on the internet using 'Adobe Flash' or 'Microsoft Silverlight'. These programmes offer certain advantages and disadvantages over traditional HTML based web media, some of which are listed below:

#### **Advantages**

- They can make a website more attractive, interactive and dynamic.
- They can display animated content.
- They can be used to create innovative advertisements, games and movies

#### **Disadvantages**

- Flash websites require additional plug-ins to perform properly.
- The site files produced tend to be large in size, therefore the site take significantly longer to load than traditional websites.

My website will be constructed using the 'Adobe Flash' programme as this will allow me to offer the same level of interactive content as other children's websites.

Through my research and the experience of watching my own children and nephews using websites, I have identified some problems with some of the sites they use. I particularly want to address these problems in my website. These problems are:

- Small navigational elements
- Text size

- Inappropriate use of animation.
- Lack of consideration for first time web and computer users.

### Competitive Analysis

I have researched a number of websites aimed at a similar intended audience as my own, I considered their design, features and usability.



<http://www.ty.com/newhome>

#### **Design**

This is a flash website that is set up with accessible features around a main content feature in the centre of the page.

The colours used are bright and fresh.

#### **Features**

This is a website that contains a mixture of audio, video and animation

Some of the content on the site seems inappropriate for young children e.g. a log in system and horoscopes.

#### **Usability**

The use of large text and buttons is appropriate to the sites intended age group.

There are so many clickable options on the page that it may be hard for the user to understand what is happening.



<http://www.bbc.co.uk/cbeebies/>

### Design

This is a website that features characters from its own TV shows, thus giving them lots of content and feature possibilities. The colours used are bright and engaging and the content available suits most tastes and needs.

### Features

This is a website that contains a mixture of audio, video and animation

There is a wide range of content that is both computer and printable interactive. The animation is very good and the flash games are easy to use and well thought out.

### Usability

The sites huge amount of content may cause difficulties for younger children and the size of the text used may also be a problem for a younger age bracket.



<http://www.mrmen.com/uk/>

### Design

This is a website that features characters from the 'Mr Men' books. The colours used are vivid and eye-catching.

### Features

This is a website that contains a mixture of audio, video and animation

The animation on this site quite humorous and it adds to the fun feel of the site, while the use of audio to identify characters is also a good feature.

This is my favourite site that I have discovered during my research, as it appeals on different levels to more than one age group.

### Usability

I could not find any obvious usability problems within this site, it even has back buttons which is a feature lacking in many flash websites.



<http://www.nick.com/>

### **Design**

This is a website that features characters from its own TV shows, thus giving them lots of content and feature possibilities. The colours used are bright and appealing and the features available should suit most tastes and needs.

### **Features**

This is a website that contains a mixture of audio, video and animation

I found some video content that was only available for viewing in the USA and this was extremely irritating.

### **Usability**

The sites layout is good but the size of some of the text used may be a problem for children in a younger age bracket. There are some features that cannot be used outside of the USA making them unusable.



<http://www.seussville.com/main.php?section=home&isbn=&catalogID=&eventID>  
<http://www.haringkids.com/>

### **Design**

This is a website that features characters from the books written by Dr Seuss, the design is based around his characters.

### **Features**

This is a website that contains a mixture of audio and animation.

There are some fun games and the story maker feature is good. It also contains printable elements.

### **Usability**

Some of the typography is hard to read at the size in which it is displayed.

## Project Content

### Content

'Jessy the Cat's Fun Things' will be an entry level website for children aged three to five years old. The site will be named after a fictional character called 'Jessy the Cat', this character will be created by myself for the purpose of this assignment.

The website will offer children the chance to learn how to interact with websites by using basic web conventions regarding navigational systems and website structure.

The website will also help to encourage children to engage in activities that will help them to develop useful skills, such as mouse control and problem solving by visual and aural stimulation through games, stories and other interactive elements.

The website will contain learning experiences similar to those used in nursery's and schools i.e. phonics, numbers, colours etc.

The following is a brief explanation of the features that are included on each page of the website.

#### Homepage

The home page is the very first page you come to when entering the site.

The home page will:

- Welcome users visually and aurally.
- Introduce the sites main characters.
- Give the user their first impression of the site.
- Give the users access to the other pages of the website.

The global navigation is displayed on the home page, just as it is on all other areas of the website. This will give the user an instant view of how to navigate through the sites pages.

The home page can be accessed from all pages of the site by clicking on the sun with the word home in it, this is located at the top right of every page.

#### Colouring Page

The colouring page is designed to help improve the user's mouse control and improve their use of colour.

#### Story Page

The story page will focus on teaching the children how to read by providing them with an entertaining story. The words in the story are designed to be suitable for the user's age group. Each page of the story will have an option to play an audio version of the relevant page to help users who

cannot read yet. Each word in the story will also have an audio version that will play when the user rolls the cursor over the word, this will help children who are learning to read.

#### Jigsaw Page

The jigsaw page is designed to help the user improve their mouse control. It will introduce the user to the principle of drag and drop through the use of moving the pieces into place. It will also provide the user with a puzzle solving challenge.

#### Songs Page

This page is designed to provide entertainment for the user giving them access to child friendly music so they can listen, dance and sing along.

#### Letters Page

The letters page will help children to understand letters through the use audio accompaniments. It will also emphasise phonic sounds used in the pronunciation of words through the audio and the accompanying songs.

#### Numbers Page

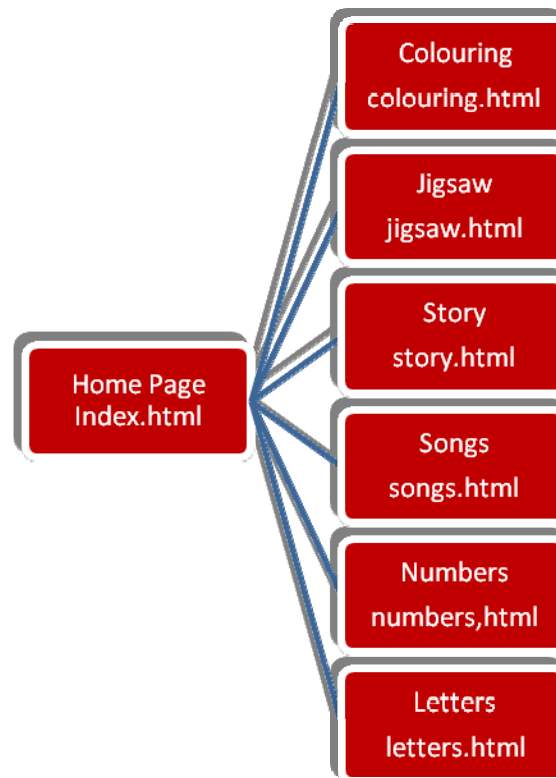
This page will help teach children to count and associate numbers with amounts. The user will be told how many characters/objects are on the screen and they can also count them for themselves. Seeing the amount of characters/objects on the screen with the associated audio will help the user to understand the relationship between lower numbers representing less and higher numbers representing more.

### **Functional Requirements**

The website will be created entirely in Adobe Flash and will be produced in HTML web pages to be viewed on the Internet. To utilise the website the user will require:

- A computer with a internet connection
- An Internet Web Browser
- Flash Player Plug-in?

## Project Structure



## Visual Design

I have researched children's magazines, websites and television characters to help me find character and content ideas

<http://www.seussville.com/main.php?section=home&isbn=&catalogID=&eventID>

<http://www.haringkids.com/>

<http://www.nick.com/>

<http://www.mrmen.com/uk/>

<http://www.bbc.co.uk/cbeebies/>

<http://www.ty.com/newhome>



Children's magazines I looked at during my research.

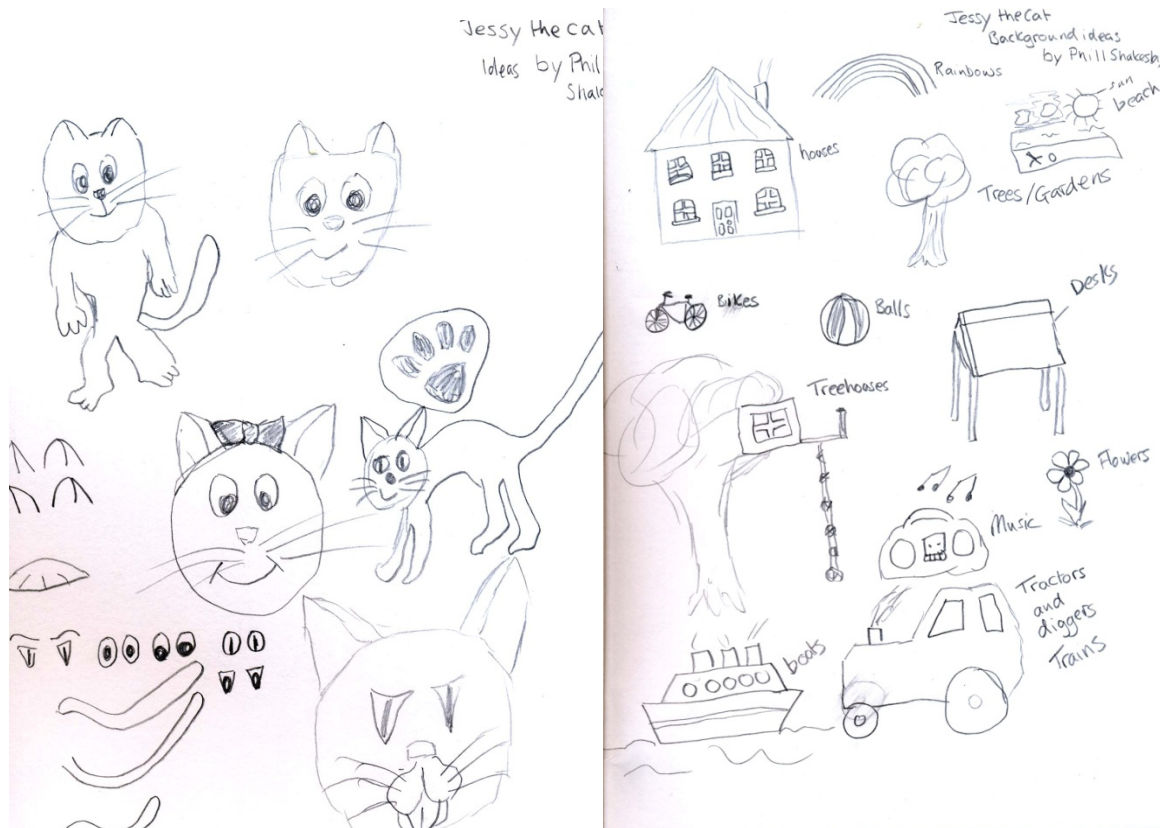
I used a character mood board to help develop character ideas.

## Character Mood Board

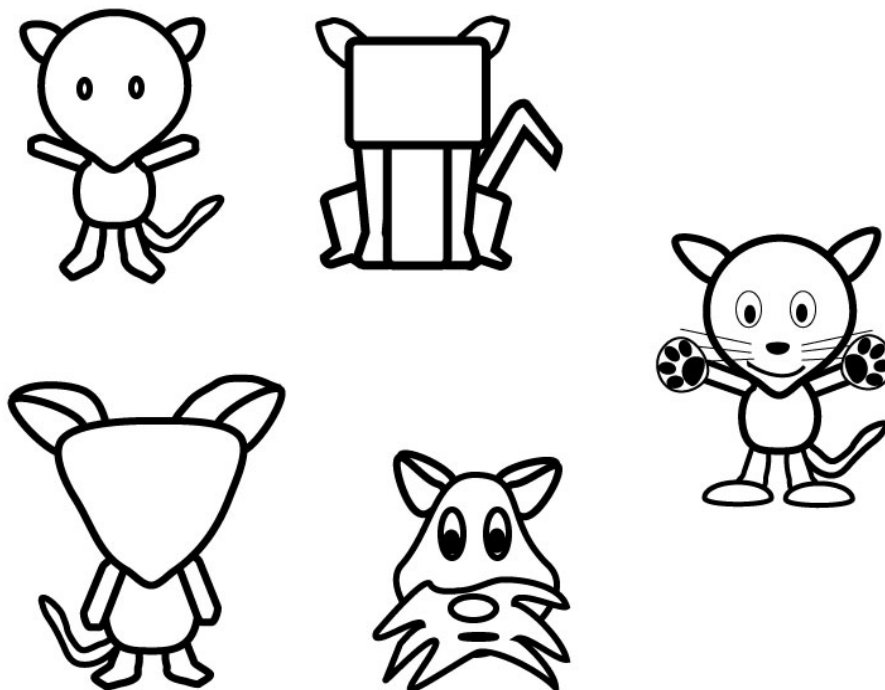


My character mood board

I sketched out ideas of for my 'Jessy the Cat' character before creating digital versions, some of which are below.



I then started to draw images digitally using 'Adobe Illustrator', I soon found an idea I liked.



The following are some of the colour options I tried when designing 'Jessy the Cat'.

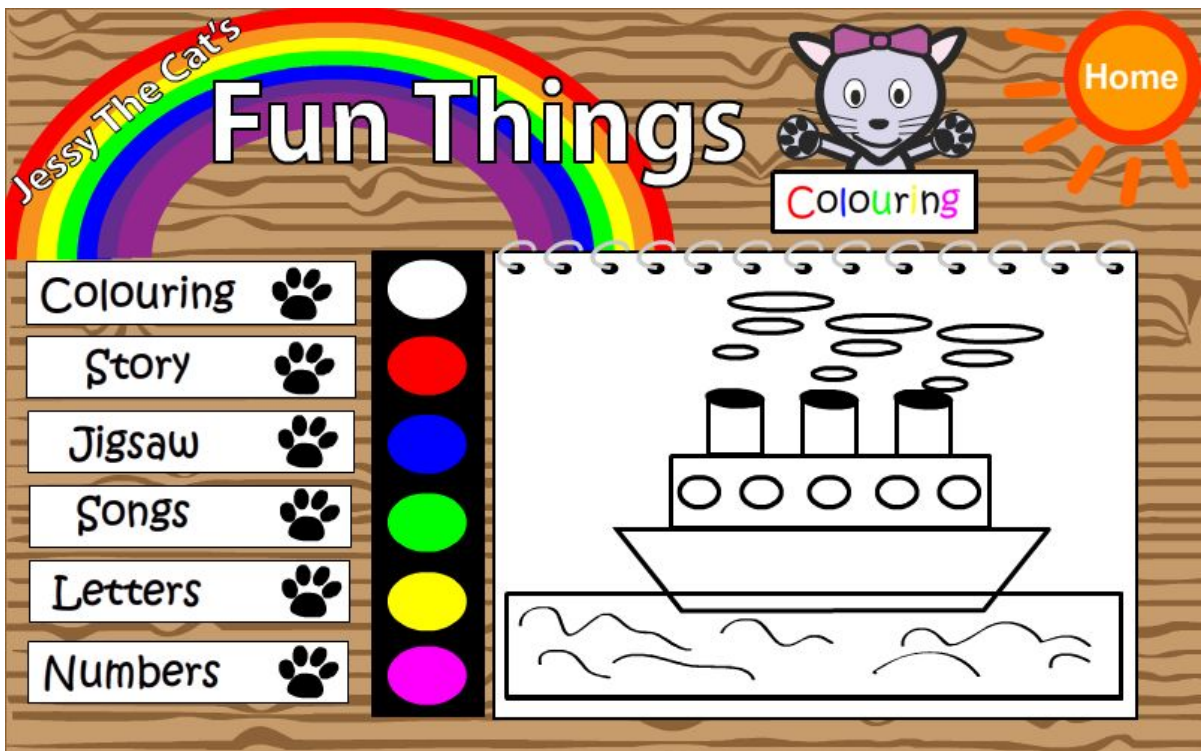




After developing ideas about the characters and background I created a screen mock up of the site hierarchy.








Site hierarchy



[Finished Page Designs](#)



Jessy The Cat's **Fun Things**  

Colouring   
Story   
Jigsaw   
Songs   
Letters   
Numbers 

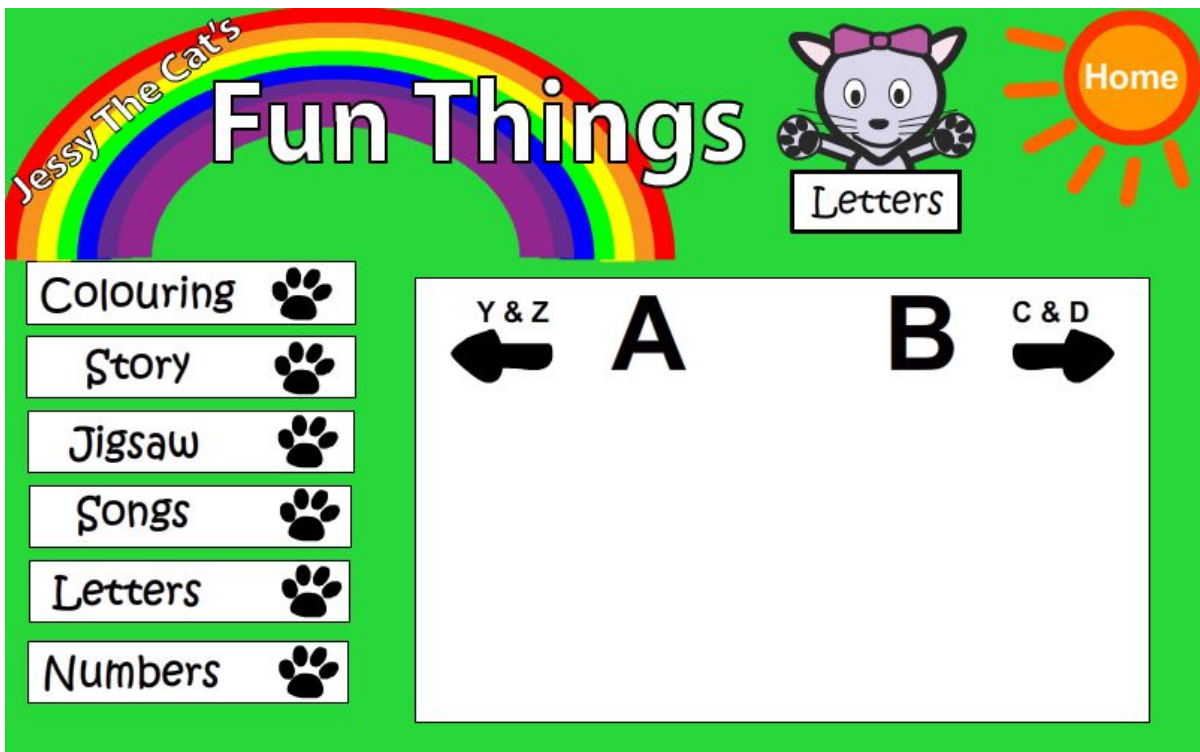
back  **The End**

Jessy The Cat's **Fun Things**  

Colouring   
Story   
Jigsaw   
Songs   
Letters   
Numbers 





Jessy The Cat's

# Fun Things

Home

Numbers

- Colouring
- Story
- Jigsaw
- Songs
- Letters
- Numbers

1 2 3 4 5

6 7 8 9 10

## User Testing

To evaluate the effectiveness of my website I conducted user testing. I did this by creating a questionnaire to be completed by adults watching children in the relevant age group using the site and by adults with professional experience of working with children in the chosen age group.

A summary of the questions and answers provided are listed below.

### Does the website look appropriate for the intended audience?

The websites look and feel was considered appropriate by all users and assessors and it was also pointed out that it may also be suitable for children with special needs outside of the intended audience.

### Is the sites navigation easy to identify?

All users and assessors found the navigation easy to find and the use of audio to identify the navigation was considered a useful feature.

### Is the sites navigation easy to understand?

The users and assessors thought the navigation was easy for children to understand especially with the use of audio when rolling over the buttons.

### Is it obvious what the content on each page is?

User testing showed that the content on each page of the site was easy to identify due to page titles and audio tags.

### Are the features on each page easy to identify?

The younger people who tested the site needed a little bit of guidance but generally user testing was positive.

### Are the features on each page easy to use?

The features on the page were generally easy to use but it was indicated that the jigsaw although not difficult could be improved by having the pieces lock in place when they join together.

### Are there any noticeable problems on any of the pages if so what and where?

It was indicated that the home navigation was not working on all pages this is a problem that I have since fixed.

I also included a section for other comments and this is some of the feedback I received.

Denise Shakesby who has recently retired after working with three to five year olds as a nursery nurse in a school nursery reviewed my site and made these points.

1. The use of voice and highlighted sections help to use C.D.

2. The Phonic sounds and different fonts that were used will help with children's pre-reading skills.
3. Colour names given as audio with the coloured buttons on screen is useful for children.
4. The songs featured were appropriate and could have been used in a classroom as part of an Interactive whiteboard lesson to help with children's physical development.

Denise Shakesby also made some recommendations.

1. Some sort of progression and reward for completion would improve features.
2. The jigsaw would have been more appropriate for the age if there was a grid to drop pieces into.
3. A print feature would be good.

Anna Shakesby who is a qualified nursery nurse currently working in a school foundation unit also gave some extra feedback, indicating that the site and its content and features fits in well with a number of the guidelines in the 'Early Years Foundation Stage Guidance'. This is the set of guidelines that school foundation units work towards. She also indicates that the site will help children develop IT Skills and also aid them with their personal, social and emotional development.

Due to the user feedback I have fixed the home page navigation and I have tried to solve the jigsaw problems but I have been unable to complete this task.

## Project Evaluation

I have really enjoyed working on this project, it has allowed me to look in depth at the way we all use websites and in particular the way in which designers often forget about the needs of the user when creating their sites. Children are hard to design for as it is hard for them to communicate feedback to the people who are responsible for creating the applications they use.

I aimed to try and provide them with some useful tools that will help them in their future use of websites and I believe that I have accomplished that.

Due to my current level of technical knowledge I have been unable to make my site function in all of the ways that I had originally hoped. I am not happy with the jigsaw feature on my site as I would have liked the pieces to snap into place as they reached their destination. Also I would have liked to have had an acknowledgment for the user upon completion of the puzzle, as children like to have recognition and praise upon completing tasks, this also encourages them to try to complete future tasks. I would also like to have added printable elements on some of my pages, in particular the colouring page as children like to use features like this. I would have liked to have had more content on my site for example:

- More Colouring pages
- More Jigsaws
- More Stories

I have not managed to fulfil all of my goals for this site as I wanted to create a fully working flash website but some of the features don't work in the manner that I had hoped they would. Despite this I feel the rest of my goals have been met successfully and the positive feedback from my user testing seems to back this up. I have enjoyed this project and I am generally happy with my finished piece.

## Appendix

### Books

Steve Krug, Don't Make Me Think, Second Edition, 2006

### Websites

<http://www.useit.com/alertbox/children.html>

<http://www.nngroup.com/reports/kids/>

<https://www.msu.edu/~graceb/atw/ezone/index.html>

<http://www.stcsig.org/usability/topics/special.html>

<http://www.webtalkguys.com/article-usability-2.shtml>

<http://www.seussville.com/main.php?section=home&isbn=&catalogID=&eventID>

<http://www.haringkids.com/>

<http://www.nick.com/>

<http://www.mrmen.com/uk/>

<http://www.bbc.co.uk/cbeebies/>

<http://www.ty.com/newhome>