Design

Design Overview

When we design a website, we have to consider 3 areas:

- Website Structure (Navigation)
- Web page layout (Wireframes, Low-Fidelity Prototypes and High-Fidelity Prototypes)
- Legal Implications

Website Structure

When designing a website, we have to define the navigational structure of the website.

Navigation can be structured in two ways:

- Linear
- Hierarchical

Linear Navigation

Linear Navigation was popular in early web development, but it's rarely used in modern websites.

Users move from one page of the site to another in a sequence. The example below shows a linear structure for a website designed for a gym:

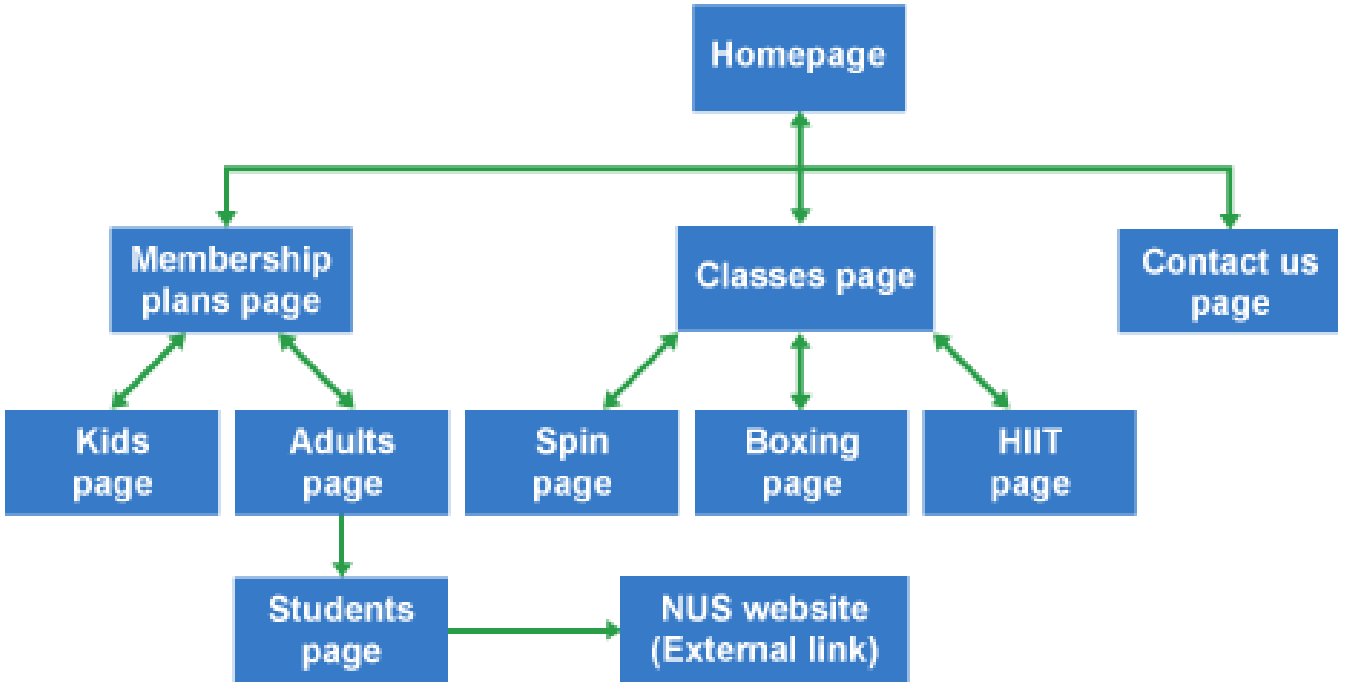
Linear Navigation Disadvantages

Users who wanted to contact the Gym would have to click through 4 pages until they found the information they needed.

Users who were not familiar with the website may end up confused!

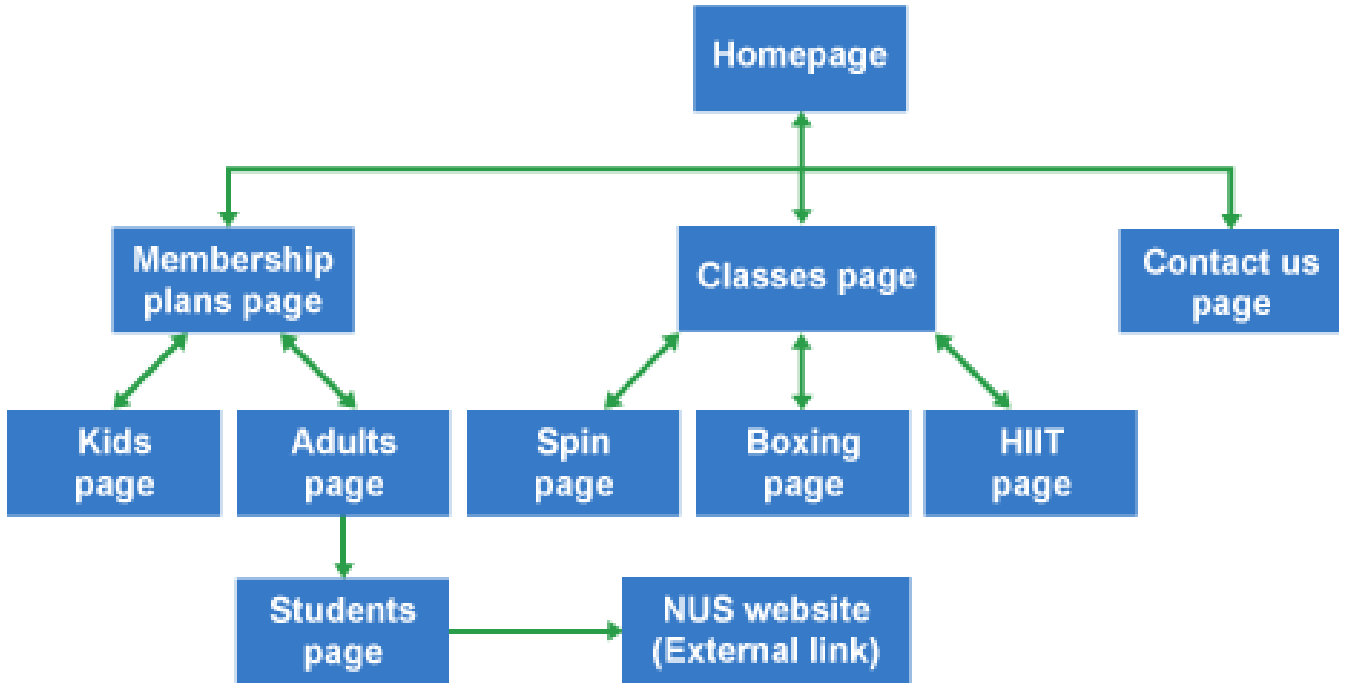
Hierarchical Navigation

In a hierarchical structure, pages are accessed dependent upon their position in the hierarchy. Here is a hierarchical example of the Gym website



Hierarchical Navigation Advantages

The different pages of a website are more easily accessed, and information is well organised

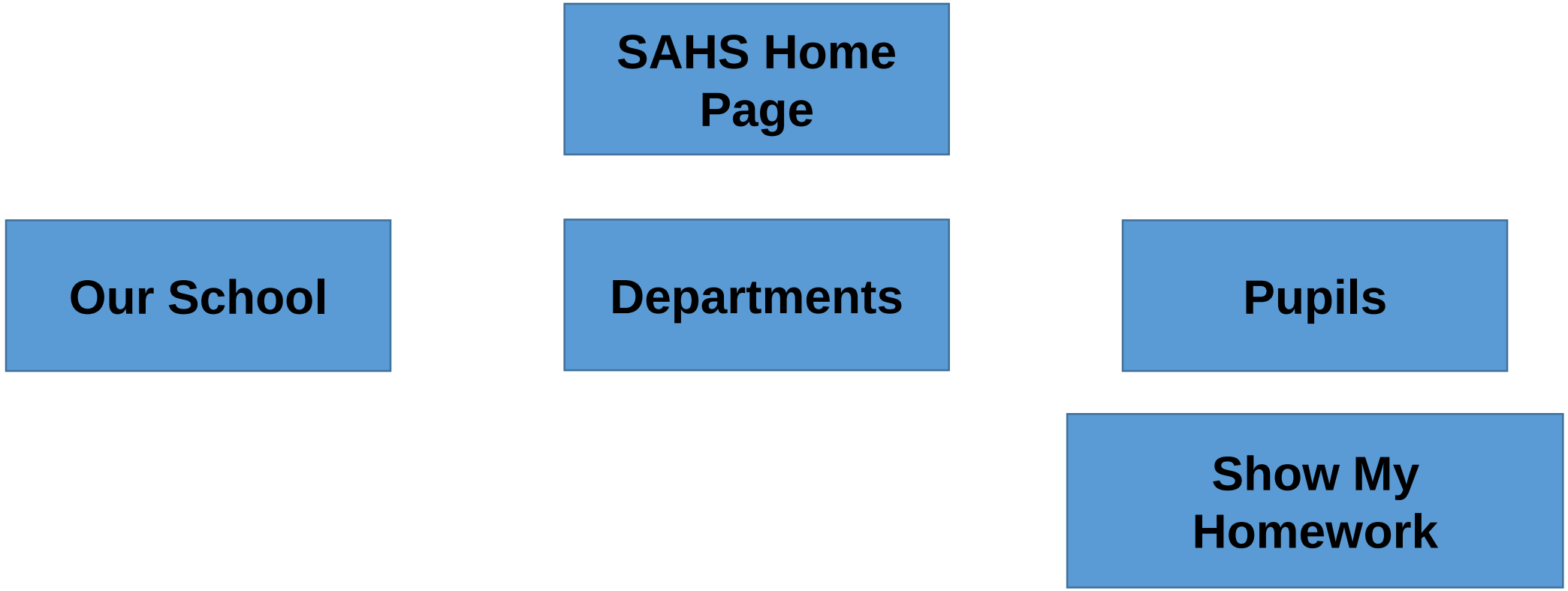


Design: Navigational (Structure) Diagram

To define the navigational structure of a website, we use Navigation Structure Diagram (sometimes called a Navigation Diagram)

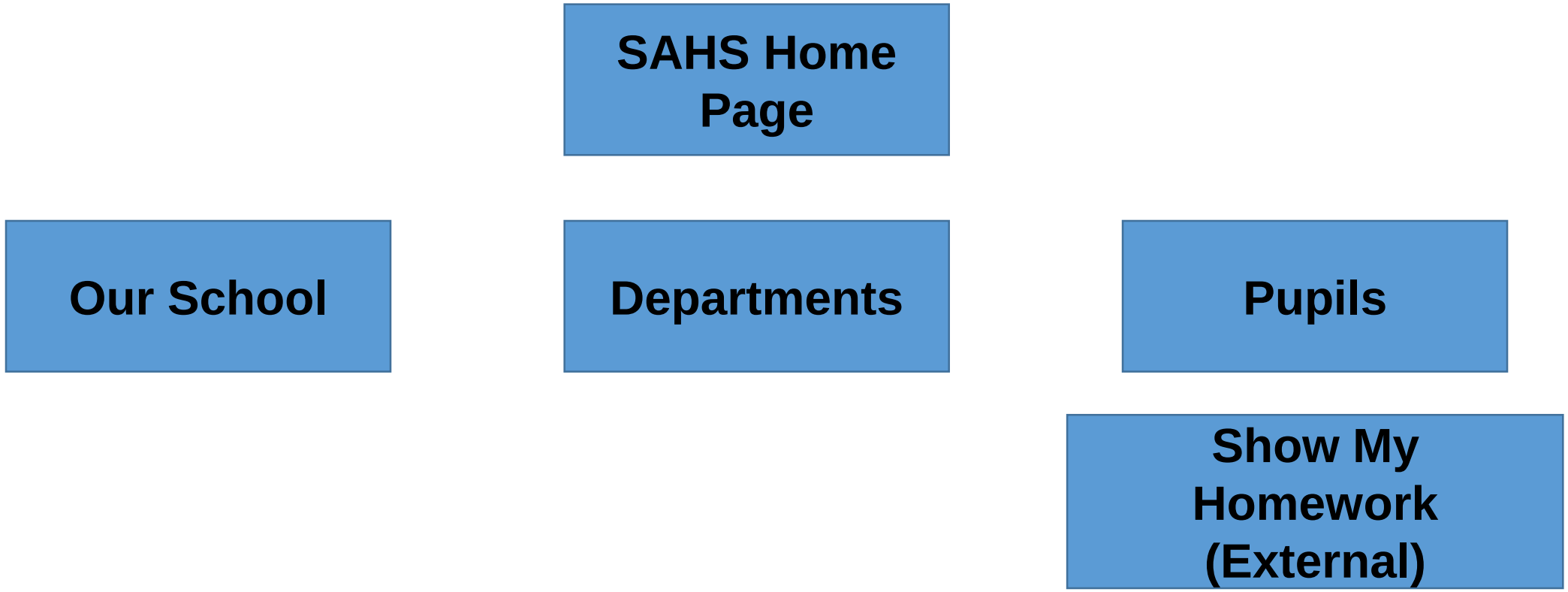
Design: Navigational (Structure) Diagram

Each web page in a website in represented by a box:



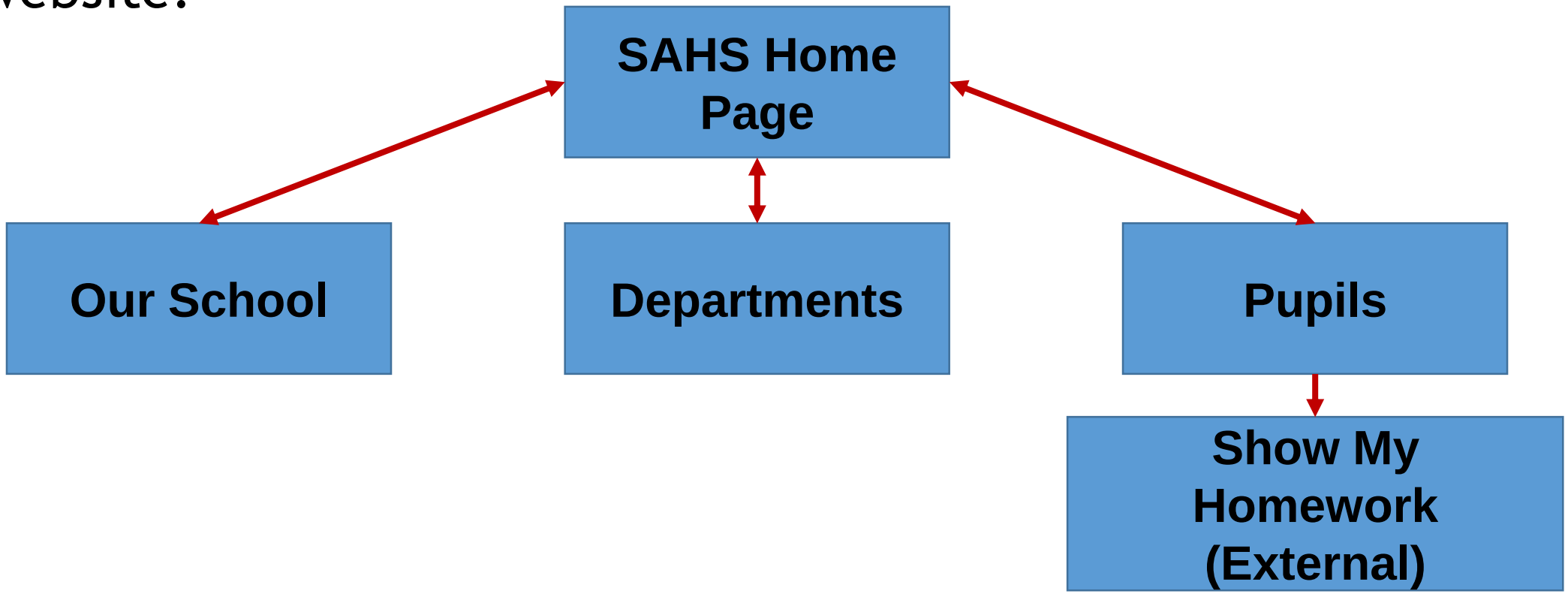
Design: Navigational (Structure) Diagram

You must label any external hyperlinks:



Design: Navigational (Structure) Diagram

We then add arrows to show how the user can navigate through the website.



Layout: Accessibility

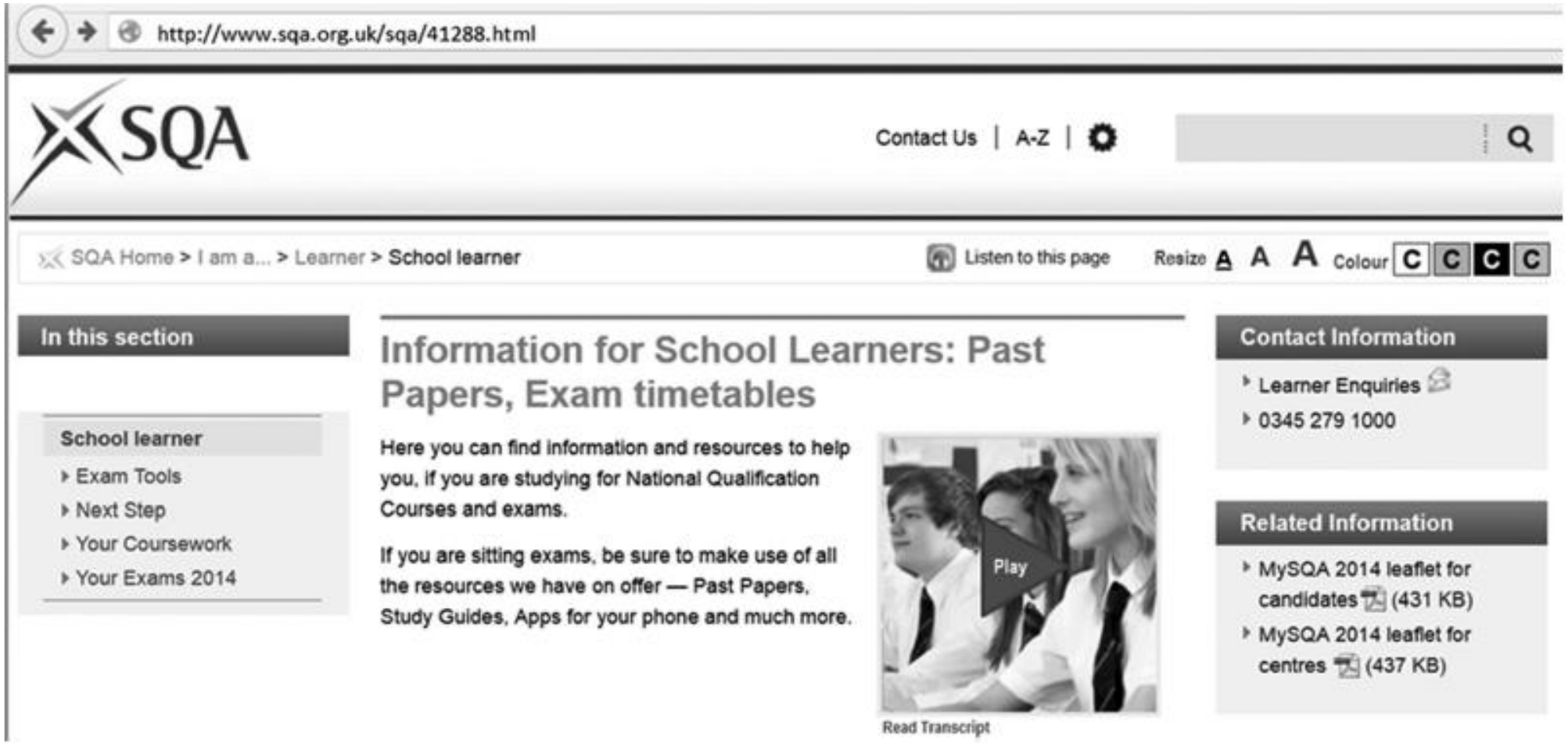
What do we need to consider when thinking about the accessibility of a website?

What additional hardware or software requirements does someone with a disability require to be able to access our website?

Layout: Accessibility

Layout: Accessibility

What 4 accessibility options are available on this site?



User Interface

Types of Device

E.g. smartphone, tablet, smart TV, desktop, laptop

These devices are used in different ways in different situations

Layout: User Interface

User Interface

Should have an appealing layout and colour scheme

Layout: User Interface

User Interface

This is a poorly designed, chaotic layout:

- Designers should think about consistent, easy to read font and colour schemes
- Consistent looking pages across the site
- Well organised pages, uncluttered

Layout: Consistency

What things do we need to consider when making web pages consistent?

- Layout of the page
- Colour scheme
- Font
- Navigational links
- Search bar

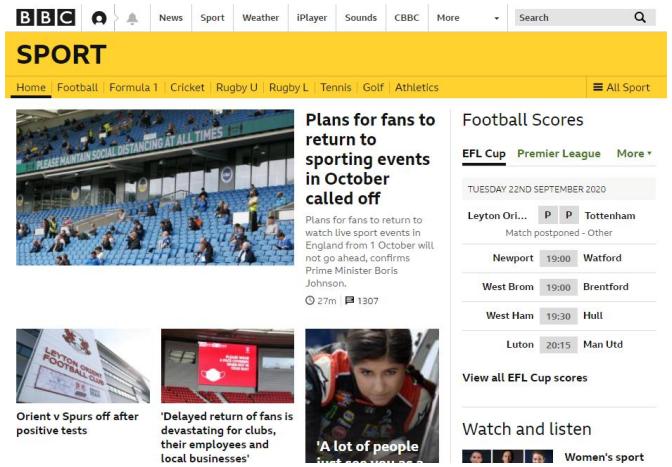
Layout: Consistency

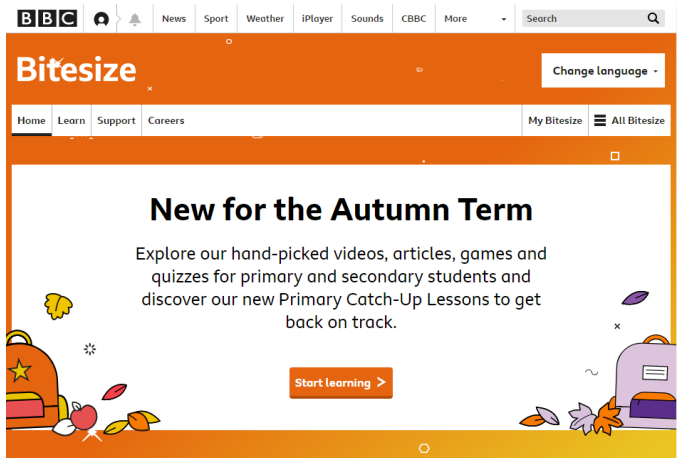
Look at these three websites:

- BBC News
- BBC Sport
- BBC Bitesize

In what ways are these websites consistent?

Layout: Consistency





- BBC branding is in the top left corner on every page
- Sign-in option is in the same place on every page
- Search bar is in the same place on every page
- Navigation in the same place on every page
- Consistent font used across all web pages
- Page specific branding always under the BBC icon

Layout: Consistency

Why do you think consistency is important in a website?

- Users get familiar with the layout and can navigate between pages easily
- Improved usability
- Different sections of the pages can be identified by the way they look

Layout: Interactivity

What do you think the term “interactivity” means?

To make a web page **interactive** we can add the following to a page:

- Sounds, animations, images
- Use quizzes and games
- Include animations which require user input

This will improve the experience of the user who is visiting the website.

Layout: Readability

This is very important as it allows a user to understand the website.

A **readable** information system has:

- Long passages of text broken up by heading and sub-headings
- Use readable fonts and sizes

Also, for visually impaired users include screen reader software

Layout: Selection

Selection is the way that a user makes a choice on your website. How do you think the devices people use to access your website will impact selection?

- On desktops and laptops, users click the mouse on a menu/sub menu item to make a selection
- On smartphones and tablets use icons for selection e.g. tap the option

Design: Wireframes

Wireframes are used to design the **visual layout** of a webpage and are used to ensure **consistency** across multiple web pages.

When creating a wireframe, we have to keep in mind our end users and any requirements they have.

How might our end users impact our design?

Target Audience and Design Impact

Have a look at the Nickelodeon website

Target Audience: Children

Design Impact: Bright colours, pictures in the navigation instead of text, dynamic images to keep children engaged

Target Audience and Design Impact

HMRC website

Target Audience: Adults or companies looking for information about tax

Design Impact: Professional colour scheme (black, white, blue), text-based navigation, no distracting images or adverts

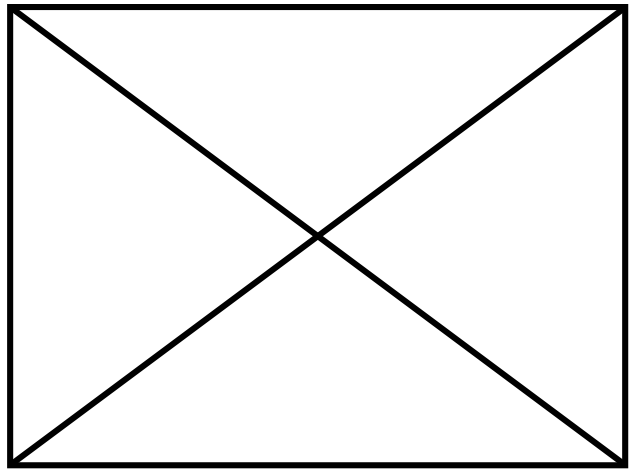
Wireframes

Wireframes should clearly show:

- navigational links
- text areas
- media used (including file format)
- position and type (internal or external) of hyperlinks on a page

How do we represent these in a wireframe?

Wireframe Symbols



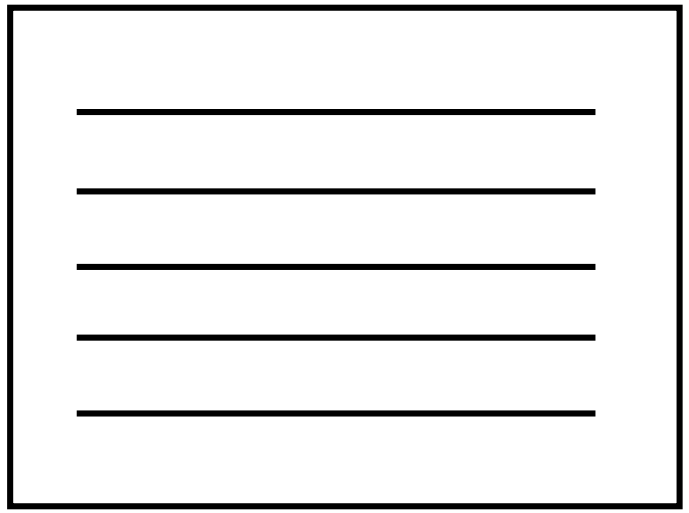
Shows multimedia, such an images or videos

You must include the file name and extension e.g. “sahs.jpg”

We need to add an annotation to include:

- the size of any images e.g. 150 x 200 pixels

Wireframe Symbols

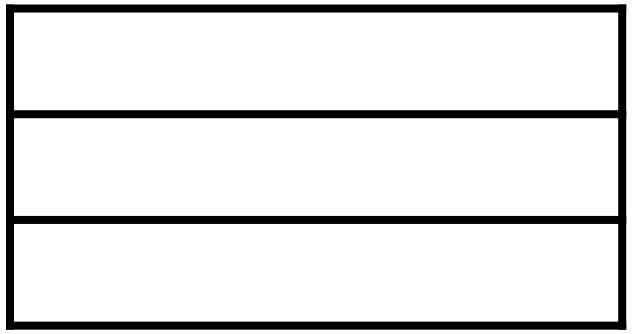


Shows an area of text

We need to add an annotation to include:

- background colour
- text font
- text size
- text alignment
- text colour

Wireframe Symbols



OR

Shows a navigation bar

We need to add an annotation to include:

- background colour
- text font
- text size
- text alignment
- text colour

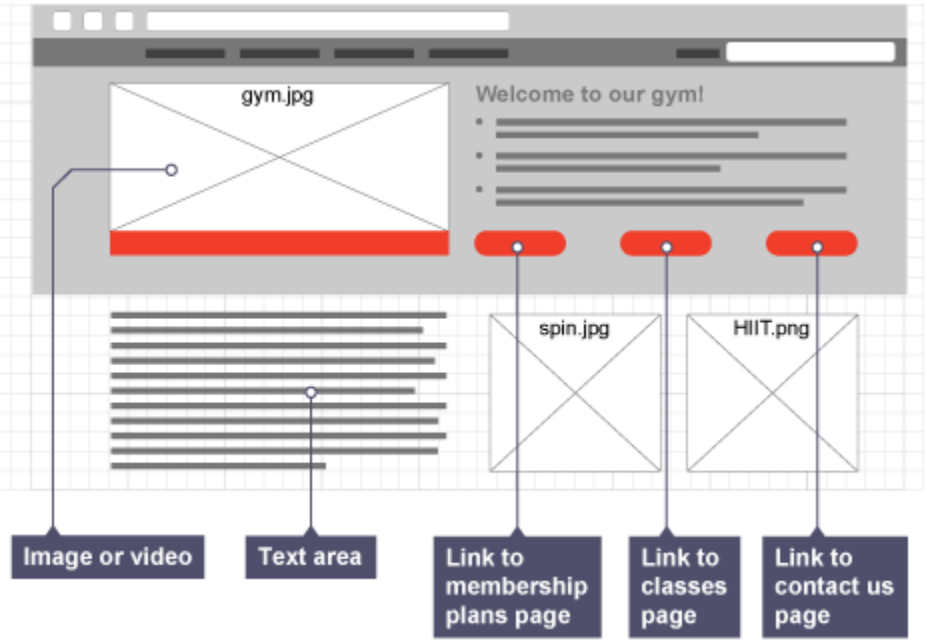
Wireframe Symbols

Shows a link

We need to add an annotation to include:

- background colour
- text font
- text size
- text alignment
- text colour
- is the link in internal or external?

What might a wireframe look like?



Low-Fidelity Prototype

A graphic design artist will take a wireframe and create a low-fidelity prototype, using pen and paper.

Low fidelity prototypes will often include more detail than a wireframe:

- text areas might contain all intended text
- image and video areas might contain hand-drawn versions of the final image/video still

Low-Fidelity Prototype Example

Here is a low-fidelity prototype of an app to find restaurants near you

High-Fidelity Prototype

A high-fidelity prototype is a draft version of the user interface produced early in the development process.

This prototype usually allows realistic (mouse-keyboard) user interactions.

- This is also used to gain feedback from the end-user to allow the developer to make changes before the website is coded

High-Fidelity Prototype

High fidelity prototypes are assumed to be much more effective in collecting true human performance data (e.g. time to complete a task) and in demonstrating actual products to users, clients, management, and others.

High-Fidelity Prototype Example

Here is a high-fidelity prototype of an app to find restaurants near you

Prototype - Usability Testing

Usability Testing uses prototypes to gain **feedback** from the end-user

The end-user is given **paper copies** of each page of the website and asked to perform tasks. An observer watches the tasks being completed and makes notes about any usability problems.

The low-fidelity prototype is shown to the end-user group and their feedback should be considered and used to update the interface before any coding takes place.