

No part of the candidate evidence in this exemplar material may be presented in an external assessment for the purpose of gaining credits towards an NCEA qualification.

# 1



NEW ZEALAND QUALIFICATIONS AUTHORITY  
MANA TOHU MĀTAURANGA O AOTEAROA

QUALIFY FOR THE FUTURE WORLD  
KIA NOHO TAKATŪ KI TŌ ĀMUA AO!

COMMON ASSESSMENT TASK

## Level 1 Digital Technologies 2021

### 91886 Demonstrate understanding of human computer interaction

Credits: Three

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of human computer interaction.	Demonstrate in-depth understanding of human computer interaction.	Demonstrate comprehensive understanding of human computer interaction.

Type your School Code and 9-digit National Student Number (NSN) into the space below. (If your NSN has 10 digits, omit the leading zero.) It should look like “123-123456789-91886”.

Make sure you have the TWO video files.

**Answer ALL parts of the assessment task in this document.**

You should aim to write **800–1500 words** in total.

Your answers should be presented in 12pt Times New Roman font, within the expanding text boxes, and may include only information you produce during this assessment session. Internet access is not permitted.

**Save your finished work as a PDF file** as instructed by your teacher.

By saving your work at the end of the examination, you are declaring that this work is your own. NZQA may sample your work to ensure this is the case.

**Excellence**

**TOTAL**

**08**

ASSESSOR'S USE ONLY

## INSTRUCTIONS

The video files each show a user interacting with a website. The task in this assessment requires you to review the interactions in terms of the usability heuristics below.

In parts (a), (b), (c), and (d) you will refer to ONE of the websites. In part (d) you are also to refer to another website – this can be the one shown in the other video, or another that you have studied.

Read all parts before you watch the videos. You may play, pause, and restart the videos as often as you like. *Note: The videos have no sound.*

You should illustrate your answers with screenshots from the videos.

## RESOURCE: Nielsen's Ten Usability Heuristics

“Usability heuristics” are general principles or “rules of thumb” to help measure the effectiveness of a user interface. You will be familiar with Jakob Nielsen's ten usability heuristics summarised below.

1. Visibility of the system's status
2. Match between the system and the real world
3. User control and freedom
4. Consistency and standards
5. Error prevention
6. Recognition rather than recall
7. Flexibility and efficiency of use
8. Aesthetic and minimalist design
9. Help users recognise, diagnose, and recover from errors
10. Help and documentation

Source (adapted): Nielsen, J. (1994, updated 2020). 10 Usability Heuristics for User Interface Design. <https://www.nngroup.com/articles/ten-usability-heuristics/>

## ASSESSMENT TASK

State the name of the website shown in the video that you will write about in your answers.

Mitre 10

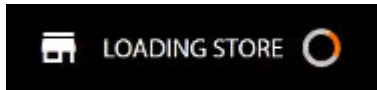
- (a) Briefly describe the purpose of this website. What does the user want to achieve while they are using it?

The Mitre 10 website allows users to purchase various home appliances (like BBQs for example) as well as plants, tools, paints and materials. It also offers online guides and services for its users.

(b) Describe a way each of the following usability heuristics is shown in the website interface. Illustrate your answers with screenshots from the video.

(i) Visibility of the system's status

Mitre 10 uses the **Visibility of the System's Status Heuristic** by displaying a throbber icon with the message 'loading store' in the top left corner of the page when a page is loading, indicating to the user that something is happening.



Mitre 10 also uses the **Visibility of the System's Status Heuristic** by telling users about the current status of the item they wish to purchase, in this example an item is not currently available at their chosen store.

✗ Click & Collect is not available at your chosen store

✓ Home Delivery available

✗ **Click & Collect - Unavailable**

Click & Collect not currently available at your chosen store

[Change store](#)

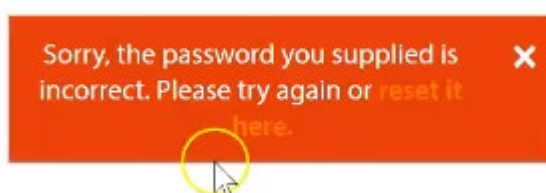
(ii) Match between the system and the real world

Mitre 10 uses **the Match between the System and the Real World heuristic** by using icons that are familiar to the user as they are also used in the real world. For example,



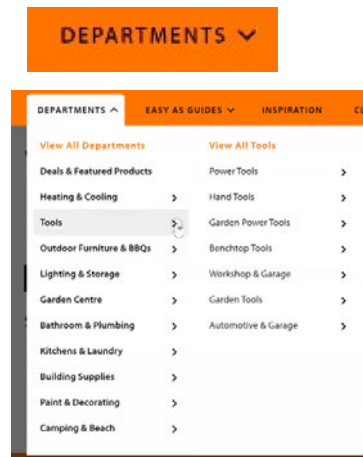
The magnifying glass, house and shopping cart icons are all icons that the user would have seen used in the real world – as magnifying glass often stands for search or look. The house (or home) helps users understand that clicking that button will take them to the home page. The shopping cart shows them what items they are in the process of purchasing/are in their cart, much like shopping in the real world.

Mitre 10 also uses this heuristic by using red as a colour for error messages. This is a use of the **Match between the System and the Real World Heuristic** as red is a colour users will often associate with danger, error and cancelation making it easier to understand that there is an error.



(iii) Aesthetic and minimalist design

Mitre 10 uses the **Aesthetic and Minimalist design Heuristic** by having an aesthetically pleasing page that sticks to its black/orange/white colour scheme that isn't cluttered with unnecessary information. Mitre 10 uses a series of labeled drop down menus that display the information contained in them only when the user clicks it which is a use of the heuristic as it only displays information that is necessary to the user.



When the drop down menu is clicked the background is darkened, this makes it so that the unnecessary background information does not distract users.

(iv) Help users recognise, diagnose, and recover from errors

Mitre 10 uses the **Help users Recognize, Diagnose and Recover from Errors Heuristic** by displaying a red box with an error message that tells users what went wrong and how to fix it in a way that is understandable and not full of error codes or jargon. The box is also highlighted in red, drawing the users attention to the error and letting them know that there is one (as red is a colour associated with error, as discussed in the system-real world match heuristic box)

Surname Required


Please enter a valid last name

Confirm password Required


New password and password confirmation do not match

(c) Discuss how successfully – or unsuccessfully – each of the following usability heuristics is demonstrated in the website interface.

(i) Visibility of the system's status

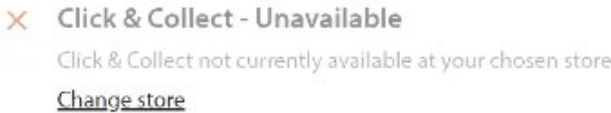


Mitre 10 uses the **Visibility of the System's status Heuristic** well, as it displays a throbber in the top left corner of the screen. This is a successful use of the heuristic as a throbber icon is known to mean that something is loading or happening, and for users who don't know what it means there is also text next to the icon saying 'Loading store', telling them that there is something being done. The throbber is located near the top left corner of the screen, and is where users look to see if something is happening as it is the traditional location of a loading icon.



Click & Collect is not available at your chosen store

Home Delivery available



Click & Collect - Unavailable

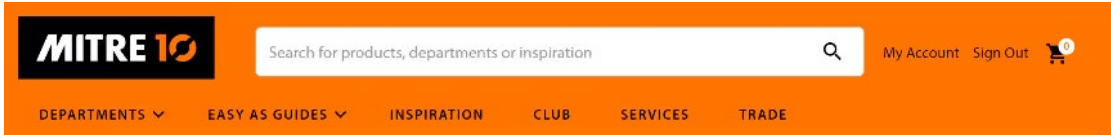
Click & Collect not currently available at your chosen store

[Change store](#)

Mitre 10 also uses the **Visibility of the System's Status Heuristic** by telling users the current status of the item they wish to purchase. This is a successful use of the heuristic as it communicates with the user well.

(ii) Consistency and standards

Mitre 10 uses the **Consistency and Standards Heuristic** successfully as it uses a format that users are familiar with and is used by other websites in the industry. The search bar is located in the top middle of the page, and has a magnifying glass icon inside of it. The magnifying glass icon is used by online shops to represent the search function, so this is a successful use of the heuristic as users do not have to learn anything new.



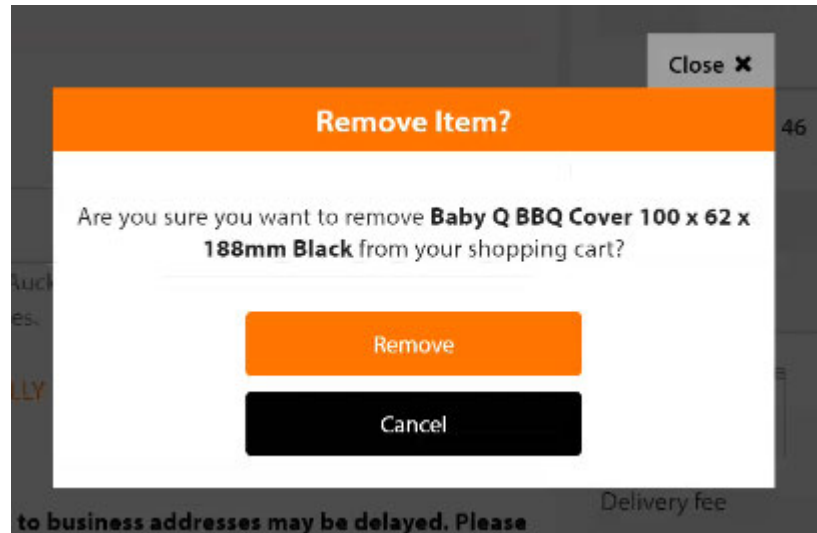
MITRE 10 Search for products, departments or inspiration My Account Sign Out

DEPARTMENTS EASY AS GUIDES INSPIRATION CLUB SERVICES TRADE

Mitre 10 also has the 'My account', 'sign out' and cart icon on the top left side of the page. This is a common location for such buttons, and will be familiar to the user so it is also a successful use of the **Consistency and Standards Heuristic**. The cart icon is also commonly used by online shops to show users what items they are in the process of buying, and so they are familiar with it as well.

(iii) User control and freedom

Mitre 10 uses the **User Control and Freedom Heuristic** by giving users an ‘emergency exit’ when removing items from their cart. This is a successful use of the heuristic as users are able to back out of the action if it was a mistake or if they change their mind by displaying both a ‘cancel’ and a ‘close’ button. This allows the user to feel in control of the situation.




- (d) In this part you will also refer to the website interface shown in the other video OR another that you have studied.

If you do wish to refer to another website that you have studied, state its name and briefly describe its purpose here.


- (i) Comment on similarities and differences between the two interfaces in terms of at least TWO of the usability heuristics on [page 2](#). Which interface follows these heuristics best, and why?

### Consistency and Standards Heuristic

**Bunnings**



**Mitre 10**



For the **Consistency and Standards Heuristic** I will be focusing on the header bar of both websites. For the search bar both websites use a magnifying glass icon. However Mitre 10's search bar is located in the middle of the header and is larger than the Bunnings search bar, which is located on the left.

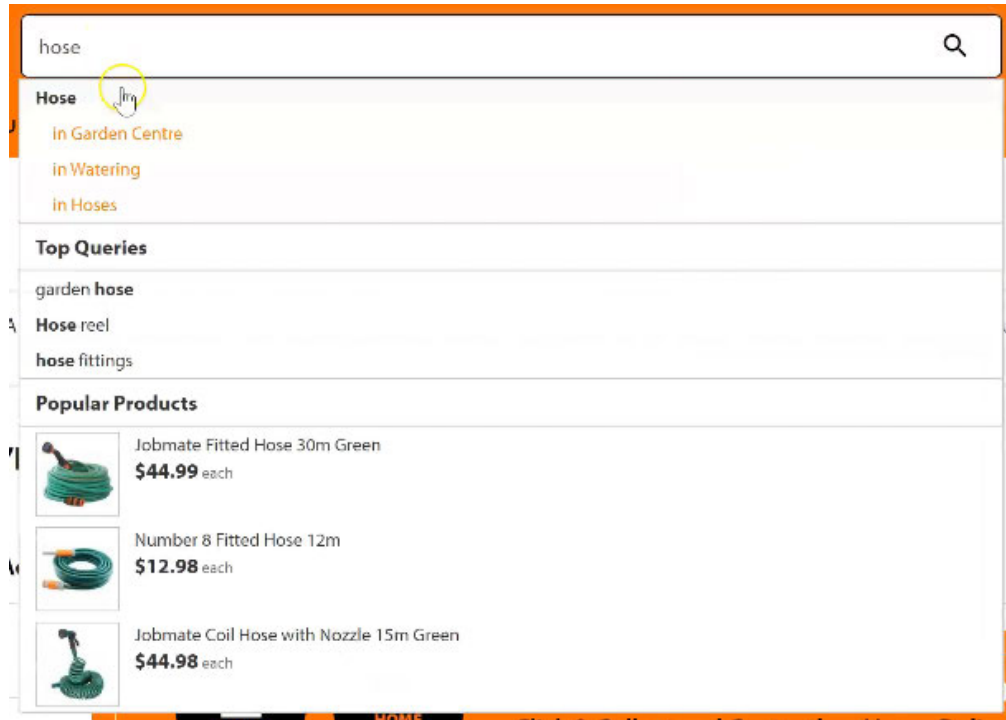
Both websites have the 'Cart' and 'Account' buttons on the top right side, which is a good use of the **Consistency and Standards Heuristic** as many websites have them located there and users will expect them to be there. Bunnings has a 'sign up' button on the left side of the header which is also located next to unrelated buttons such as 'Services' and 'stores', which is a poor use of the **Consistency and Standards Heuristic** as many users would expect it to be on the right side by (or inside) the 'My account' section.

I would say that Mitre 10 uses the **Consistency and Standards Heuristic** better than Bunnings, as the buttons are all located in places that will be familiar to the user, whereas Bunnings has a stray 'sign up' button that may confuse users due to its position of being on the left. Mitre 10's search bar is better in my opinion, and uses the space well whereas for Bunnings there is a lot of empty space which could be filled if they moved and changed the size of their search bar.

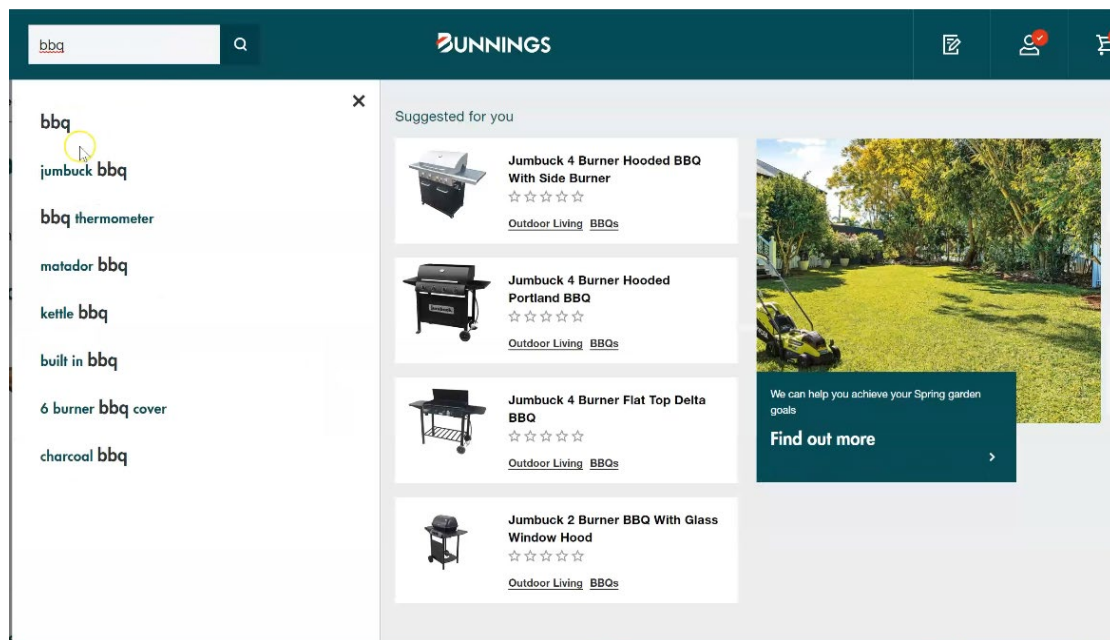


## Recognition rather than recall

### Mitre 10



### Bunnings



Both Bunnings and Mitre 10 use the **Recognition rather than Recall Heuristic** well by suggesting options to the user that are related to their search/input.

Mitre 10 displays different departments to find a hose in, as well as top queries and popular products relating to it. Bunnings suggests other searches including the word 'BBQ', and has a 'suggested for you' section. Bunnings also has an option about 'Spring Garden Goals' which is unnecessary and unrelated to the search.

Simply because of the 'Garden Goals' I'm inclined to say that Mitre 10's use of **Recognition Rather than Recall Heuristic** is more effective as it only suggests options that are relevant to the user's input.

## Visibility of system status

Mitre 10



EXCLUSIVE

**Number 8** Kettle BBQ  
Cover H: 760mm, W:  
700mm, L: 700mm Black

SKU: 353713

**\$9<sup>99</sup>** each

✗ Not available at your  
chosen store. **Check  
nearby stores**

✓ Home Delivery available



EXCLUSIVE

**Number 8** 4 Burner Flat  
BBQ Cover H: 800mm, W:  
1650mm, L: 620mm B...

SKU: 353712

**\$17<sup>99</sup>** each


✗ Not available at your  
chosen store. **Check  
nearby stores**

✓ Home Delivery available



Bunnings

Compare
+



**jumbuck**


Jumbuck 4 Burner Hooded BBQ With Side Burner

☆☆☆☆☆ (0)

**\$369**

+

Compare
+




**jumbuck**

Jumbuck 4 Burner Hooded Portland BBQ

★★★★☆ (2)

**\$218**

+



For **visibility of system status** both Bunnings and Mitre 10 use a throbber icon to indicate when the page is loading. Both are a good use of the **Visibility of System status Heuristic** as users will likely understand what the throbber icon means. Mitre 10 also has text next to their throbber icon saying ‘loading store’ which will be helpful for users who don’t understand what the symbol means.

When shopping for products Mitre 10 uses the **Visibility of System Status Heuristic** by telling the users the current status of each item and whether it is available. Bunnings does not do this, and users must click on the item first to find out its status.

I believe that Mitre 10 uses the **Visibility of System Status** heuristic better than Bunnings as it communicates to the user more, saving them time and informing them. ‘Loading store’ is a good use of the heuristic as it will help users unfamiliar with the throbber icon understand that something is happening, and is therefore better communication.

- (ii) Referring to the usability heuristics, suggest and explain how you would apply ideas from one of the interfaces to make at least TWO improvements to the other one.

## Consistency and standards

I would recommend that Bunnings improve their header, as this will improve their use of the **Consistency and Standards Heuristic** as well. Some ways to do this would be to move their stray ‘sign up’ button. This button could be moved to the ‘My account’ section as it is more related, and would be expected to be found there. This will improve Bunnings’ use of the **Consistency and Standards Heuristic** as the setup of the header would be closer aligned with that of other websites in the industry, and would make it easier for users to navigate.

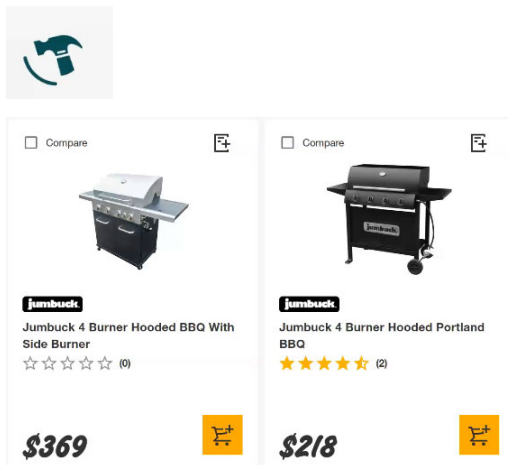
They could also remove this ‘sign up’ button as it may be confusing to users who have already signed up and in to the websites (as it does not disappear after them doing so).



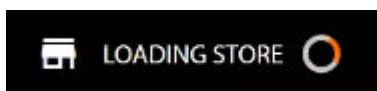
## Visibility of system status

**Visibility of System Status** relies on communication between the system and the user. In order to use this Heuristic more effectively Bunnings could add a small message saying ‘Loading’ beneath their throbber icon like Mitre 10 has done. This would help users who are unfamiliar with the symbol understand what is currently happening.

Bunnings could also improve their use of this Heuristic by communicating with the user more regarding the status of the items they’re browsing. This will create more communication between the system and the user and save user’s time as they would no longer have to click on the item to see its status.



Bunnings^





EXCLUSIVE  
**Number 8** Kettle BBQ  
 Cover H: 760mm, W:  
 700mm, L: 700mm Black

SKU: 353713

**\$9<sup>99</sup>** each

✗ Not available at your  
 chosen store. [Check  
 nearby stores](#)

✓ Home Delivery available



EXCLUSIVE  
**Number 8** 4 Burner Flat  
 BBQ Cover H: 800mm, W:  
 1650mm, L: 620mm B...

SKU: 353712

**\$17<sup>99</sup>** each

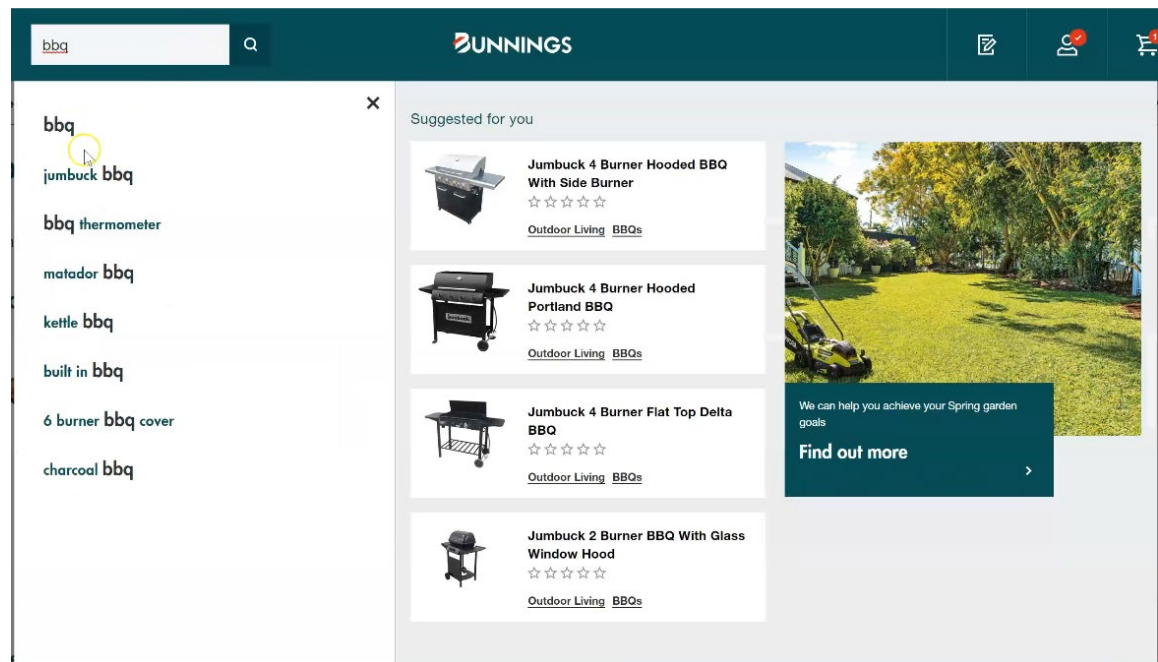
✗ Not available at your  
 chosen store. [Check  
 nearby stores](#)

✓ Home Delivery available

Mitre 10^

### Aesthetic and Minimalist design

If Bunnings wanted to improve their use of the **Aesthetic and Minimalist design Heuristic** then they could remove the section talking about ‘Spring Garden Goals’ in their search function as it is unnecessary and unrelated information that clutters the search menu and may distract the user from their current task.



## Excellence Exemplar 2021

<b>Subject</b>	Level 1 Digital Technologies	<b>Standard</b>	91886	<b>Total score</b>	08
<b>Q</b>	<b>Grade score</b>	<b>Annotation</b>			
1	E8	<p>The candidate has discussed how well / not so well their chosen interface met the given heuristics, with supporting evidence in the form of screenshots.</p> <p>They have provided a very good commentary of the similarities and differences between the two websites in terms of three different heuristics, again providing supporting evidence.</p> <p>They have then been able to say which was the most successful, giving reasons why. Finally, they have suggested at least two feasible improvements to their chosen site.</p>			