

## Inquiring and Analyzing

<p><b>Develops</b> a <b>detailed</b> design brief, <i>(Develop - To improve incrementally, elaborate or expand in detail. Evolve to a more advanced or effective state)</i></p> <ul style="list-style-type: none"><li>• You should cite all sources of information using appropriate conventions.</li></ul>	You should present information concisely (point form is okay)
	You should explain how and why the information is relevant to solving the problem
	You should evaluate the validity of the data
	You should present their research in an appendix (if you did not insert it in the tables above)
<p><b>Summarizes</b> the analysis of relevant research</p>	

## What you should not do

You should not:

- write large paragraphs of text
- include statements that do not relate to solving the problem
- make statements without evidence from expert opinion or data
- include all of their research within the body of the project.

## What to do

At this point, students have collected a great deal of data that requires analysis and summary to inform the design of the solution and be useful. The analysis and summary must be presented in a design brief, a series of detailed paragraphs that present only the useful information.

The brief shouldn't solve the problem at this stage, but instead outline what the student intends to design to solve the problem, provide answers to each of the research questions, and clarify the essential and desirable features of a solution. It should also state any determined values that the design must meet, such as the following.

- When designing a bird house, the student may have researched the size of desired birds and therefore determined the size of the entry hole to the bird house.
- When designing a new noodle product, the student may have determined the "base" recipe for making the noodles as part of his or her research.
- When designing a web page, the student may have identified certain fonts or images that need to be included.
- When designing a video game, the student may have identified particular sprites that he or she will use to represent the main characters in the game.

## Poor quality - EXAMPLE

The Trumpet is not the hardest instrument if you only think about the fingering. Actually getting the sound out of the instrument is the real challenge.

Still beginners really struggle with the fingering. There is a logical system of valves and sounds coming out as well. I learned that from my Trumpet teacher.

There are natural tones where you don't have to press any button, just lower or increase the number of vibrations (you don't blow into a trumpet, you basically buzz your lips and then through the vibrations a sound appears) to heighten or lower the sound.

There are three valves. The first valve can lower the tone by one step, the second by half a step and the third by one and a half. In total you can go down by 3 steps (if you press all valves at once).

If kids were taught at a very young age not to just learn the fingering for some of the notes but also the logic behind them. This would really help later, when things get difficult. Also you have different fingering for the first two octaves.

The half step fingerings are as follows (1 stands for valve one, 2 for valve 2 etc.)

0, 123, 13, 23, 12, 1, 2, 0, 23, 12, 1, 2 (first octave) 0, 12, 1, 2, 0, 12, 1, 2, 0, 12, 1, 2, (second octave fingering repeats).

I am sure that a chart for this is available, but I don't think that kids are being thought this. This may be hard to do but I think kids could be thought this by playing.

It should be easy to read and logically built up. One could for example try to relate it to the scores lines that mark the tones height.

A system like that would be in my eyes a great innovation because it has never been done before and in my opinion greatly increase the young Trumpeter's fingering.

## Average quality - Example

After researching the problems my parents have with their bedroom and bathroom, I have decided to design a dressing table for my mom which for her bedroom.

This dressing table will:

- Include a mirror large enough for my mom to use when preparing in the morning.
- Include special designed accessory holders for the variety of jewellery and accessories my mom has so that they will all be neat, presentable and easy to take off and put on.
- Include a place/tray for all the perfume to be able to stand on, which will make it easy for my mom to choose her perfume each day.
- Include a few little storage boxes which my mom can place her hair clips in, her hair ties in, and other accessories or products that cannot get tangled up with each other.
- Be decorative, so that it really fits in with bedroom and will add to the bedroom being a cosy and warm room.
- Have a place for candles where they are safe (from falling and safe to light up) and will add to the look and feel of the room.
- be made so that it is very stable, this will be done through constructing the table using the series of joints that I have identified in the research.
- include at least one of the colours of the bedroom so that it fits with the bedroom.
- be according to the measurements of my mom, so that she will be able to sit down easily and so that her legs are not against the bottom of the table as well as placing everything well so that my mom can easily reach everything and place everything when she used something.
- be environmentally friendly because it will be recyclable and so if my parents decide to throw it away after a few years of use, the materials can be used for other projects or making other objects.
- be user-friendly.
- This project will help my mom save time as well as storage space as well as finishing the design of her bedroom which she wanted to make more cosy and presentable and neat.