



Understanding Standards

**Support pack for National course assessment
C819 75**

**Design and Manufacture (SCQF level 5)
assignment**

Identifier: ABCDEFG/2017 Practical Candidate Evidence

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Please note:

The materials in this pack were used as part of the Design and Manufacture Understanding Standards event in November 2017.

Overview

Purpose

Understanding Standards packs are intended to provide teachers, lecturers and assessors with a clear understanding of the marks that have been awarded to specific examples of candidate evidence and the reasons why these have been awarded. They may be used in centres:

- ◆ to prepare for the assessment of the relevant course component
- ◆ as benchmarks to help assessors judge the evidence produced by their own candidates
- ◆ for training purposes

The commentary and candidate evidence in this pack should be read in conjunction with the relevant coursework assessment task and the marking instructions.

Candidate evidence

Candidate A: Practical

Candidate A



			Candidate A
Practical Skills	Activity	Marks Available	Actual Marks
Measuring and marking out	Measuring and marking out	9	6
Using hand and machine tools	Using hand and machine tools	18	14
Assembling components	Preparing for assembly and assembling the prototype	5	5
Finishing	Preparing surface, applying techniques and final finishing	9	4
Evaluating	Evaluating the design proposal	4	0
Total mark		45	29



Candidate A: Evaluation

EVALUATION

My shelf is very good and I have ratted it:

Looks	*****
Materials	****
Finish	****
Correct height	*****
Joints	*****

Overall *****

Candidate B: Practical

Candidate B



			Candidate B
Practical Skills	Activity	Marks Available	Actual Marks
Measuring and marking out	Measuring and marking out	9	9
Using hand and machine tools	Using hand and machine tools	18	18
Assembling components	Preparing for assembly and assembling the prototype	5	5
Finishing	Preparing surface, applying techniques and final finishing	9	9
Evaluating	Evaluating the design proposal	4	4
Total mark		45	45

Candidate B: Evaluation

Shelf Evaluation

I tested the shelf to see if it held all of the things that it was designed to do and it did.

The hairdryer: This fits in the hole and is reasonably secure. It is easy to access.

The straighteners: these fit in the hole and the cable can be wrapped around them to stop them falling through, although I am a bit worried they fall through and break.

They are more secure if stored when open.

The brushes: These fit well into the holes and can also be stored in the strings. They were easy to get in and out.

Other items: The shelves have sufficient space for additional hair products. The strings can be used for hair accessories too.

I asked the girls in my class what they thought about the design.

Do you think the shelf has a guitar theme?

YES										
NO										

All of the girls felt I had met this.

They said they liked that the design was slightly abstract.

Would this shelf fit in with a simple modern style room?

YES										
NO										

5 out of 7 thought this would. The two who didn't said they would prefer if the wood was painted white.

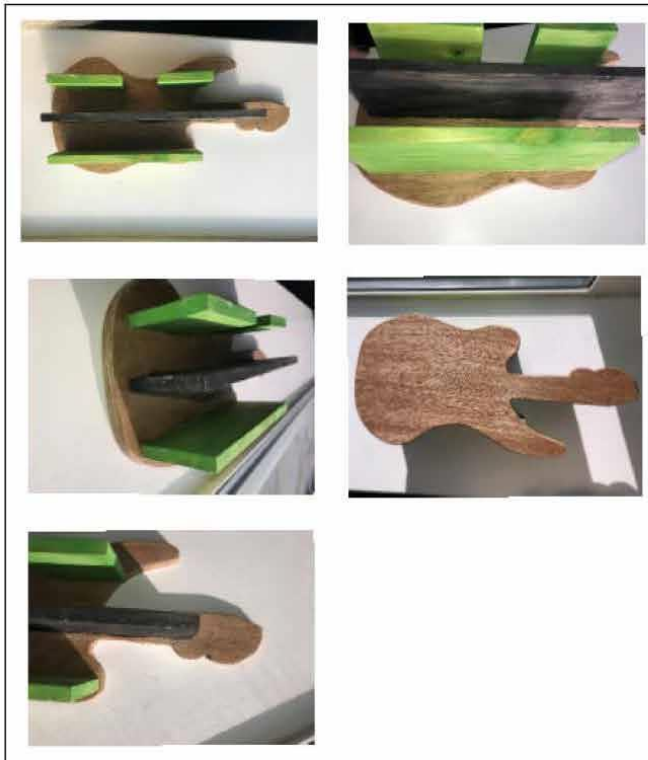
I am really pleased with the design. I forgot that I was supposed to whitewash some of the wood until I had already applied the wax finish. I still met my specification to use cool natural colours and materials.

I had to change the length of the shelf and the order of the holes as they wouldn't fit on the original shelf length.

I also had to change the assembly of the guitar head. I couldn't do the rivets as this would have to be done after the plastic had been formed. I used contact adhesive to secure shorter rivets into a blind hole passing through the acrylic.

Candidate C: Practical

Candidate C



			Candidate C
Practical Skills	Activity	Marks Available	Actual Marks
Measuring and marking out	Measuring and marking out	9	2
Using hand and machine tools	Using hand and machine tools	18	6
Assembling components	Preparing for assembly and assembling the prototype	5	2
Finishing	Preparing surface, applying techniques and final finishing	9	2
Evaluating	Evaluating the design proposal	4	0
Total mark		45	12

Candidate C: Evaluation

EVALUATION

I was really pleased with my shelf. It worked out just like I planned apart from the colours of the shelves. I had to change these because the school did not have the colour of stain I wanted but the colours I used were really good anyway.

My shelf was to look like a musical instrument and it does. It was to look nice and I think it does.

My biggest problem when I was making the shelf was lining the holes up for the dowels but I managed it OK and they all fitted together.

I cut the shape with the fret saw and then filed it and sanded it on the sander. I had to do bits by hand. I think I made a really job of this part.

If I was doing the shelf again I would stain the shelves before I glued them to the back as it would be easier.

Overall my shelf worked out really well and everyone likes it.

Candidate D: Practical

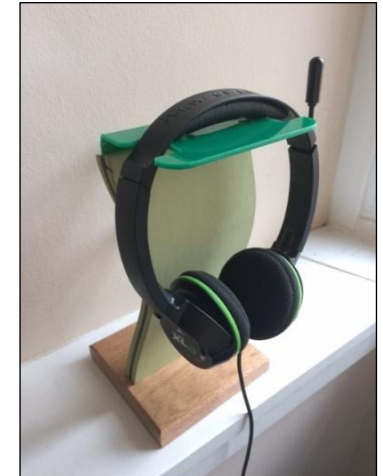
Candidate D



Practical Skills	Activity	Marks Available	Candidate
			Actual Marks
Measuring and marking out	Measuring and marking out	9	7
Using hand and machine tools	Using hand and machine tools	18	18
Assembling components	Preparing for assembly and assembling the prototype	5	3
Finishing	Preparing surface, applying techniques and final finishing	9	9
Evaluating	Evaluating the design proposal	4	4
Total mark		45	41

Candidate D: Evaluation

Questions	Evaluation technique	Results
Does my shelf demonstrate a high level craftsmanship?	Ask five members of the class what they thought.	They all thought it was good
Does shelf must hold the earphones securely?	Test	I put my headphones on the shelf and shook it and the headphones still stayed on.
Does my shelf fit on the window sill?	Test	I put my shelf on my window sill to see if it fitted. There was enough room(see picture)
Is my shelf strong enough to hold headphones?	Test	I put different sizes of headphones on and none of them broke the shelf.
Is myself attractive to teenagers?	Survey	I asked the whole class if they thought my shelf was attractive. 9 thought it was attractive and 5 thought it was boring.
Does my shelf must have a music theme?	Surveys	I asked the whole class if they thought my shelf had a music theme. When the headphones were on they thought it had a music theme.
Are the headphones easy to reach?	User trial	I asked the whole class to see if the headphones are easy to reach They all thought it was easy to reach
Does my shelf fit in a 500 x 400 x 125mm box?	Test	I put my shelf in a 500 x 400 x 125mm box and it fitted
Does my shelf keep the wires tidy?	Survey	I asked the whole class if they thought the cables were kept tidy
Will my shelf damage the earphones?	Test	I put the headphones on the shelf to see if they got damaged
Is my shelf a suitable size to hold the earphones?	Test	I put the headphones on the self to see if it was a suitable size



Candidate E: Practical

Candidate E



			Candidate E
Practical Skills	Activity	Marks Available	Actual Marks
Measuring and marking out	Measuring and marking out	9	4
Using hand and machine tools	Using hand and machine tools	18	7
Assembling components	Preparing for assembly and assembling the prototype	5	2
Finishing	Preparing surface, applying techniques and final finishing	9	2
Evaluating	Evaluating the design proposal	4	1
Total mark		45	16

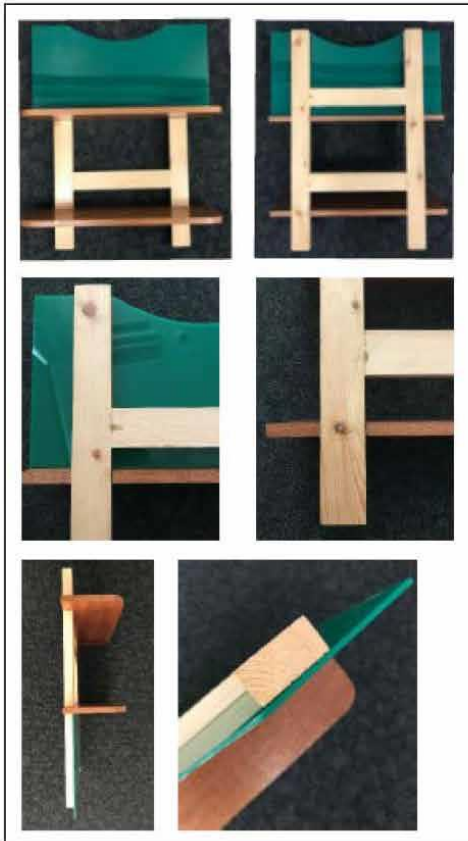
Candidate E: Evaluation

Evaluation of the guitar shelf holder

I really enjoyed making this shelf for my guitar. I think I learned lots of new things. It turned out really well cause it fits my guitar and I can hold it up without it breaking. I ran out of time to drill holes in the plastic bit so ill do that when it take it home. I was holding it up in my hand and I put the guitar in it and it seemed to hold it ok and it didn't break so I'm really pleased that it works I think. I like the colours and the wood that I was given. The school didn't have any walnut like I wanted to begin with but my teacher found me a bit of Oak to use which looks really nice glued to the plastic. If I was to do this again I probably wouldn't do anything different cause what I finished with is good.

Candidate F: Practical

Candidate F



Practical Skills	Activity	Marks Available	Candidate F
			Actual Marks
Measuring and marking out	Measuring and marking out	9	9
Using hand and machine tools	Using hand and machine tools	18	18
Assembling components	Preparing for assembly and assembling the prototype	5	5
Finishing	Preparing surface, applying techniques and final finishing	9	8
Evaluating	Evaluating the design proposal	4	3
Total mark		45	43



Candidate F: Evaluation

As part of my evaluation I showed my finished model to my friends and family and asked them to test it and answer a questionnaire (10 responses with comments)

1. Do you like the look of the shelf unit? **Yes - 8** **No - 2**
(The unit is colourful and provides a good contrast between the light and dark woods. The curved edges on the shelves add to the overall modern effect. The Acrylic would have looked better in pink)
2. Does the shelf unit hold at least 10 DVDs and 10 CDs? **Yes - 10** **No - 0**
(The unit would hold lots of CDs and DVDs however they tend to fall over and the design would be better with more support for these items)
3. Is the shelf unit well finished? **Yes - 6** **No - 4**
(The varnish and wax has been well applied but the wooden surfaces could have been better prepared as some marks can still be seen)
4. Is the shelf unit easy to fit to a wall? **Yes - 5** **No - 5**
(Further drilling or fixings need to be added to allow the shelf unit to be fixed to the wall)
5. Is the shelf unit safe to use? **Yes - 8** **No - 2**
(The unit is safe to use as there are no sharp edges or finger traps)
6. Is the shelf unit strong? **Yes - 8** **No - 2**
(The unit appears to be strong and capable of holding many CDs and DVDs)

Candidate G: Practical

Candidate G



			Candidate G
Practical Skills	Activity	Marks Available	Actual Marks
Measuring and marking out	Measuring and marking out	9	7
Using hand and machine tools	Using hand and machine tools	18	14
Assembling components	Preparing for assembly and assembling the prototype	5	3
Finishing	Preparing surface, applying techniques and final finishing	9	4
Evaluating	Evaluating the design proposal	4	4
Total mark		45	32



Candidate G: Evaluation

Deodorant Can Shelf Evaluation

I have evaluated my deodorant can shelf and found out the following things in the table.

Things I want to evaluate/specification points	Evaluation technique	Evaluation results
Does it cost less than £5 to make?	Calculating material costs	I calculated the cost of the material and worked out that it would cost less than £2 to make this model again. I know it can definitely be made for less than £5. The acrylic rod parts were the most expensive bits.
Does it hold the deodorant cans securely?	Testing by putting cans in it	I tested the shelf by putting three cans in it and lifting them in and out again and again. I then asked my friends to do it. It held the cans securely, because they didn't fall out. It could also be used over and over again without breaking or becoming weaker.
Does it look appealing to my target market?	Ask my class questions about how it looks	I asked 10 people if they thought the shelf was stylish - 8 said yes (1 said "don't know"). I asked the same 10 people if they liked the colours - 8 said yes (1 said "don't know"). I asked the same 10 people if they liked the contrasting colours and shapes - 8 said yes.
Does the style meet the specification?	Compare it against the specification	I have managed to achieve a simple design by using simple shapes and not too many parts. I have used straight lines in the triangle bit but opted for curves elsewhere which doesn't really meet the specification. It has contrasting colours (red and black). It used the Foo Fighters album "Colour and the Shape" as its theme.
Has it been made well?	Testing by measuring	I tested it by putting cans of deodorant in and out of the shelf. It managed to withstand this at least 20 times without breaking.
Is it easy to use?	Ask people to use it	I asked the 10 people who I asked the style questions to use it. Then I asked them if it was easy to use. They all said yes.
Is deodorant proof?	Test it by spraying deodorant on to it.	I wanted to see if the shelf material would withstand deodorant bursting onto it so I sprayed it with some deodorant. I left it overnight and when I returned the next day it was no worse for wear. I couldn't see anything wrong with the material other than smelling really nice.