### A Level Design & Technology: Product Design

Pre-Course Task

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## NEA Context: 'Inclusive design - supporting students with their next steps'

Task and Resources Required	Work to be completed
Task 1 – Exploration of context	<u>Task 1</u>
50% of your A Level in Design & Technology (Product Design) comes from the Non-Examined Assessment (NEA) that challenges you to identify real-world problems and develop innovative solutions. This task is the first step in that process.	<ul> <li>1x A3 PowerPoint slide.</li> <li>Range of images that show potential next steps for sixth form students.</li> </ul>
Your design context is "supporting students with their next steps."	Annotations that expand on the images and explain some
This could relate to transitioning to university, apprenticeships, employment, vocational training, internships, or any other post-A Level pathway, including gap years and volunteering.	of the potential issues/problems that students might face.
Your task is to identify genuine needs and opportunities to support students through this transition.	Use a combination of:  • Internet research
<u>Task</u> - Research all the different routes students might take after sixth form study:	Conversations/interviews with family, friends, teachers,
<ul> <li>University (moving away from home, managing time, finances, study skills, etc.)</li> <li>Apprenticeships (balancing work and study, professionalism, transport)</li> </ul>	careers advisors.
<ul> <li>Employment (interview skills, personal branding, workplace readiness)</li> <li>Gap years or volunteering (travel, accommodation, hygiene, safety)</li> </ul>	As a starting point, use the Government's National Careers Service website - Post 18 options   National Careers Service



## **Examples of Task 1: Exploration of Context**

# Preparing for Success

### **Exploration of Context**

DT Department



This free sawdust is a major hazard as it is tempting to blow off the table. If done so, it could fly into someone's eyes, causing irritation. Otherwise, it is just aesthetically unpleasing and if blown off it would create a mess on the floor.

product which catches the sawdust. Or some sort of hoover could be attached to the saw which cuts the wood, cleaning up efficiently and quickly

PE Equipment



These hurdles have been thrown into a corner. causing unorganisaton. This means it would be hard to find certain equipment when needed leading to having inefficient lessons for the students, as they are losing learning time, because more time is spent finding equipment.

ere, the equipment should have a storage room to be stored away in an organised manner, along with labels in different compartments for specific pieces of equipment.



When wet, this railing would be extremely slippery, therefore if someone relies on pulling themselves up the railing to walk up it would be difficult. If they are not aware this could result in falling and possibly any injuries.

could design a rough, rubber grip which could be fitted on top of the railing to increase friction between the railing and the user's hand. This would ensure the user has a strong grip, reducing the chance of slipping.



Although these bins are for recycling, students still can throw foreign items away (food waste etc). This causes disruption at recycling/waste centres and can contribute to global warming as landfill can pollute the environment. Also, bins can be forgotten by students, causing the playgrounds to be littered. This makes the school aesthetically

Doorway



This doorway has been obstructed by a chair to substitute a doorstop. It has taken up half of the space in the doorway, creating a trip hazard. Furthermore, people may stub their toe if they are unaware of the inconvenient chair in the

Learning Commons

Chair

Storage

Door hook

To solve this problem, a doorstop could be simp installed, therefore I should avoid to develop further in this area for my DT project.

Kitchen sign



his interesting issue could be fixed by designing a product to store knives and chopping boards which has an obvious sign saying the type of food that the cutlery is used with. To make this multifunctional, the product could have a cleaning mechanism which would get rid of any bacteria while the cutlery is waiting

Lost property in

pe

PREVENT CROSS CONTAMINATION



These pe clothes are in a disorderly mess. If someone is trying to look for their lost property or is looking for something to wear for their pe lesson (because they forgot their kit) it would take a while to find certain clothes, therefore reducing the time that student is able to spend in

There should be boxes with different compartments labelled with the types of clothes that belong there, to increase organisation. This would allow students to instantly pick out clothes, massively reducing time lost in their Physical Education classes.

This can be solved by adding more bins dedicated to different waste or encouraging people to dispose of waste responsibly by making the bins more aesthetically pleasing or introducing a more severe punishment system if students are

caught littering.

Untidy disused paper



This mess looks like a disgrace and would be hard to find certain pieces of paper/documents as they haven't been organised. People could trip up over these disused boxes leading to injuries and irritation. Furthermore. it's not being recycled and just sitting around possibly ending up in a general waste bin, which is not sustainable.

To create a tidier

environment which can

should just be recycled if

their contents have no

use, or they can be put

way into a locker if they

away in an organised

are still in use.

help people mentally

breathe, these boxes

Clearly this desk is too small. This would hinder productivity rate because books must be stacked up upon each other and therefore they must be moved each time to see their contents. A messy workspace could increase stress and confusion, therefore lowering

This can be simply solved by installing larger desks into the learning commons for students to use during silent study. Or I could design a desk which has multiple compartments below the main desk to put books away. Furthermore, a vertical plane could be installed on the end of a desk to be able to stand books up. This would help with posture.

Problems with stacking chairs up on desks include they can be easily knocked off and if someone is nearby, they could be hit and severely injured by the, hard, pointy legs.

Rubber caps could be stuck at the bottom of the legs to improve the grip. Although this is mainly done to ease the cleaners' job, if the chairs were to stay on the floor, a mod could be designed which easily targets areas which are difficult to reach

This hook has been placed in a very inappropriate position. If someone was to hand a coat or bag on it, it would get caught while the door is closing. This could get extremely annoying if you're in a rush.

This issue can be simply solved by moving the hook to the centre of the door, but also a little lower so no hoods get caught

Changing Rooms



The furniture used to hold the students' school bags and equipment has been designed badly because the benches are too narrow to comfortably sit on and in a full class bags could get mixed up because of how close they are together. In addition, there is no privacy, which doesn't help insecure students trying to feel more comfortable in the school environment

To overcome this, the changing rooms could be redesigned with wider benches and actual changing rooms with walls for privacy. The hooks could also be distributed out more for more space. between hanging bags.

#### Conclusion

........... As a short summary, going forward, I would ignore door hooks and doorways as those problems can be easily solved and would require virtually no thinking.

On the other hand. I like the idea of making a project around bins. bettering the DT department or redesigning the PE changing rooms because I can go in lots of detail and can be creative to help me solve the problems. I would also enjoy working around improving the waste management or DT department. This is because I have a strong feeling about how important recycling is to ensure sustainability and DT is one of my favourite subjects. Moreover, DT also has plenty of design opportunities as lots of different equipment is used, which in turn brings issues.

Exemplar from previous context – your context is 'supporting students with their next steps'

