

Year 9 Digital Technologies Programme 2021

Station 1- Tinkercad Unit

Digital Technologies Guided Activity:

1. **Designing with Tinkercad:** Learn the functionality and design process using Tinkercad. Be resourceful and creative while keeping in mind that you have 3 session to complete your challenge
2. **3D Dimensions:** Understand the 3D dimension of Tinkercad and how the 3D Printer uses the X and Y axis to print your project. Discover how the computer sends information to the 3D printer and the files it uses.
3. **Variables:** Understand variables and how to use them while designing your product. Learn how to create and give variables meaningful names.
4. **Conditionals:** Understand what conditionals are and how to use them in Tinkercad blocks. Learn how to use the 'If...Then' and 'If..Then...Else' blocks.
5. **Iterations:** Learn how to use iterations when using Tinkercad blocks for our design. Recognise when to use the 'Forever' 'While' and 'For' Loop.
6. **Mini Project:** Demonstrate your understanding of the Tinkercad Unit and design and 3D print a project in your activity group. Your project must have a purpose linked to robotics.
7. **Website Log:** Maintain a design log about a 3D digital outcome using Tinkercad blocks with variables, conditionals and iterations. Describe the use of the design cycle and keep the end user in mind while using the correct file for storage and transfer for the 3D printer.

Digital Outcome Goals:

CT: Design a 3D digital outcome using Tinkercad blocks with variables, conditionals and iterations.	DDDO: Use the design cycle and keep the end user in mind. Ensure that you are using the correct file storage and transfer for the 3D printer.
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Assessment Rubric:D=1-5⁺,A=6⁺,M=8⁺ & E=9⁺

#	Criteria	D _{eveloping}	A _{chieved}	M _{erit}	E _{xcellence}
1	Designing with Tinkercad				
2	3D Dimensions				
3	Variables				
4	Conditionals				
5	Iterations				
6	Mini Project				
7	Website Log				