**Technologies Lesson Plan**

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| **Year: 7** | | **Lesson: 2** | **Duration: 60 minutes** |
| **Topic/Theme:** | Develop an architectural design using County-Centred design principles | | |
| **Learning Intention** | Students are considering audience, materials and naturalistic design when using ‘country-centred design’ to test and communicate ideas to create a 3D model. | | |
| **Curriculum Content Descriptors: Year 9** | | | |
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| **Success Criteria:** | | | |
| * Plan and discuss how to make a sketched design into a 3D building in Minecraft. * Collaborate to construct a 3D model in Minecraft. * Use a rubric to self-assess how well the model considers the Country-Centred design principles | | | |
| **Rationale:** | | | |
| ‘Minecraft: Education Edition’ has been chosen as the ‘3D modelling’ software for this class as it is intuitive and simple to use, unlike other programs which are either frustrating to learn or too advanced. Minecraft is a powerful learning tool to engage students as many are excited to use it in the classroom.  The goal of this lesson is to continue from a previous activity where students created a sketch for a design of a building in groups of 5 using ‘Country-Centred Design’ (CCD). Moving into a 3D space, students are using critical thinking to develop and test their ideas (ACTDEP036).  CCD principles are used so that students have to consider and justify choices of materials and how they are sustainable, how they considered the audience, and how they produced a naturalistic design to the audience’s description(ACTDEK034; ACTDEP037). | | | |
| **Assessment:** | | | |
| Formative assessment will be utilised throughout the lesson. Adjustments will be based on how familiar a student is with Minecraft, how the group is communicating to construct the buildings and if they can explain the decisions they are making while building.  Self-assessment is used at the end of the lesson for students to reflect on their learning and how well they have achieved the learning outcomes. | | | |
| **Cross Curricular Priorities:** | | | |
| Aboriginal and Torres Strait Islander Histories and Cultures   * Country Centred design focuses on the housing needs and representation of Aboriginal peoples   Sustainability   * One of the principles of CCD is sustainability. When considering materials students will have to consider how they could use local and sustainable materials | | | |
| **Resources:**   * Self-assessment rubrics * Previously designed structures | | | |
| * Laptops or desktops * Minecraft: Education Edition | | | |

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| **Before Class** | | | | |
| Time: | Teacher direction/ activity/ instruction: | Student activity / what students are doing: | | Assessment: |
|  | * Have Minecraft open on the Projector. * Learning intention and success criteria written on board * Country Centred design principles written on board. * Have a ‘world’ in Minecraft prepared and use blocks to outline where each groups building should be built. |  | |  |
| **Hook: Minecraft** | | | | |
| **5 mins** | * Instruct students to sit in their group like the previous lesson. * Briefly introduce the class hook: “today we are going to use Minecraft to build the structures we designed last lesson”. * Go over learning intention and success criteria:   “You can see our learning intention is to … so to be successful today we need to (success criteria)” | | * Finding their seats in their groups * excited with the idea of using Minecraft. * students see the whole picture and purpose of activities/learning. | * Watch for engagement – students that disengagement might need more help to use Minecraft. |
| **Introduction** | | | | |
| 3 mins | * hand the 5 groups back their design sketch from previous lesson. * remind students of the principles of design by listing them as seen on the board.   “these are the principles you based your design on, now still thinking of these, your groups are going to work together to build it in Minecraft.   * Explain that each group will have to assess themselves using a rubric, assess how thoughtfully they have used the principles.   Hand rubric out | | Refreshing prior leaning  Thinking critically about how their design will justify the principles. |  |
| **Body** | | | | |
| 40 mins | * Instruct students to open Minecraft and join pre-prepared ‘world’. * Emphasise the 30-minute time limit. * Discuss how they will have to work collaboratively and clearly communicate and discuss how they will all work together to build the designed building. Suggest each person in the group be assigned to a role. * While in game, show each team where they are to build. * Remind students of time constrains and that it needs to be done by the end of the lesson. * While the students build, float around in-game to monitor and give feedback. Inquire about the building. * Tell students when there is 10 minutes left of the activity. | | Discussing logistics in groups  Assigning roles  Opening Minecraft and working collaboratively to construct the structure.  Communicating with each other  Problem solving | Discuss if the group is using the material they planned to use in their design.  Observe if student is discussing and problem solving in their groups.  Observe if the student is actively participating in building and discussion.  Observe students suggesting solutions and ideas.  Ensure Staying on task –focusing on their building.  Evaluate student explains what they are building and why they are making specific decisions. |
| **Conclusion** | | | | |
| 10 mins | * Tell students to stop building and to individually use the rubric to assess the building. * Go over success criteria.   “So, we went over the success criteria in the beginning of the lesson, do you think we did all this? “   * Students share thoughts.   Praise the students for their designs and encourage they screen shot the building to keep | | Students use teacher’s computer that is connected to the projector to present the building.  Students use rubric to assess how they used the principles and how successful their design is. | Students self-assess and think critically about their choices.  Reflect on the depth of learning – did the students achieve the learning intentions |