Lesson Plan Four

Class/Grade/Stage: 5	**Date:** 28/07/22	**Time:** 1 Hour 2.00pm — 3.00pm
Key Learning Area(s): Industrial	**Lesson Topic:** Technical Drawings and Idea Generation (Lesson 4) ● Introducing the project through isometric and technical general assembly drawings. ● Explain all the parts that are required in the construction of the required, ● Collaboration, mood board creation (Canva) and idea generation.	
NESA Australian Professional Standards for Teachers *Identify the standard(s) and focus areas that align with this lesson:*	**Use ICT safely, responsibly and ethically** 2.3.1 Use curriculum, assessment and reporting knowledge to design learning sequences and lesson plans. 3.1.2 Set explicit, challenging and achievable learning goals for all students 3.4.2 Select and/or create and use a range of resources, including ICT, to engage students in their learning. 4.2.1 Demonstrate the capacity to organise classroom activities and provide clear directions. 4.5.1 Demonstrate an understanding of the relevant issues and the strategies available to support the safe, responsible and ethical use of ICT in learning and teaching.	
Recent Prior Experience *(formative assessment, summative assessment, specific relevant concepts, skills and values the school students have experienced prior to this lesson):* ● Been introduced to the concept of idea generation and evaluation prior. ● Has had practice in analysing existing products in the market to aid the idea generation phase. ● Has knowledge of design principles and factors affecting design.		

Syllabus/Syllabi Outcome(s): *Please note the syllabus reference number AND write out in full.* **IND5-2** applies design principles in the modification, development and production of projects. **IND5-8** evaluates products in terms of functional, economic, aesthetic and environmental qualities and quality of construction. **IND5-5** selects, interprets and applies a range of suitable communication techniques in the development, planning, production and presentation of ideas and projects. **IND5-6** identifies and participates in collaborative work practices in the learning environment.	**Indicators of Learning for this lesson- learning intentions and success criteria:** *In meaningful Ss language, so Ss can monitor their learning. Linked directly with the syllabus/syllabi outcome(s).* Learning intention(s): What will Ss know, understand and be able to do as a result of the learning and teaching: ● Ss able to effectively grasp the concept of the box and the components involved in the fabrication of it. ● Ss gain a deeper appreciation of the design and what a good one looks like. ● Use and/or modify designs when completing projects (ACTDEP049) ● Ss able to use ICT tools such as canva to explore and communicate previous designs for inspiration, and then continue to use higher order thinking skills to critically analyse these products. ● Ss able to more effectively participate in collaborative work practices when evaluating personal designs, as well as Success criteria: How students will know they have achieved these intentions? ● Be able to achieve and an effective design concept, similar to or better than the WAGOLL examples provided. ● Able to create an ICT moodboard visual displaying a range and wide variety of previous designs; which have then been annotated using the principles of design and factors affecting design. ● Able to collaborate effectively and provide useful constructive criticism for others, and take others feedback to improve their own design.	**Assessment:** *Strategies which will be used to assess learners' attainment of learning outcomes. Should be linked to each learning indicator.* ● Ss made to sketch design concepts which will acquire them applying design principles. ● Generates an ICT visual which has annotations that evaluates previous designs in terms of the factors affecting design (functional, economic, aesthetic, etc). ● Participate in collaborative learning with other students and be able to effectively analyse and critically evaluate their own and others designs using high order thinking skills.

Any safety issues to be considered (APST 4.4.1):

- General classroom safety and management which includes keeping students settled and away from the hazards within the learning environment.
- The use of technology; ensuring students are accessing/viewing content that is appropriate.

LESSON SEQUENCE

Lesson Content / Indicators of Learning/ Teaching Strategies (*What* is Taught): -	**Timing** *(mins)*	**Learning Experiences:** **(*How* it is taught)** *Write detailed steps showing what the teacher (T) will do and what students (Ss) will do. Include differentiation if applicable.* *- teaching strategies*	**Resources and Organisation:**
INTRODUCTION			
- *student concepts* - *student values* - *link with learning intentions*	15	Teacher will display the Lesson 4 page on the project's website and go through the general assembly drawings and part list with the students. Students should also get the chance to get this website up on their own computer to help guide themselves through the resources available. Teacher would benefit by having a finished example of the product, to show students and walk through each part of the box with them. (approx 10 min). Teacher should proceed by showcasing WAGOLL/previous Ss examples, which is available on the website resource. It would be beneficial for the teacher to explain what makes these designs 'good'. This will in turn help Ss start considering their own ideas (approx 5 min).	Heirloom Box General Assembly Drawings (Tyler, 2022). Part list (Thompson, 2022) Wagoll Resources of previous students work.
DEVELOPMENT			
- *student skills* - *student concepts* - *link with learning intentions* - *link with success criteria*	35	Ss to complete the Canva Task activity (via the link) which is explained thoroughly on the website. Teacher able to demonstrate briefly the basics of getting onto the website and basic tools. Brief annotations are then to be added to the designs to help Ss begin linking the principles of design and factors affecting design to previous examples using HOT. (approx 20 min). Ss are then to complete their own individual basic sketches to begin communicating their ideas on paper. WILF is sketches to be basic and show experimentation with shape and size (approx 15 min).	Effective sketch example (Tyler, 2022)

CLOSURE			
- *student concepts* - *student values* - *link with learning intentions* - *link with success criteria*	10	With remaining class time, Ss are to participate in collaborative work practices within the classroom. This time will be for the students to critique their own work and the design of others within the class. Prompt students to be using the principles/factors of design relevant to the project (example of these are seen in Fig 3 of the website). HOT Ss are able to take this feedback into consideration and use it to improve upon their own designs. (approx 10 min)	Figure 3. Factors affecting design https://technologystudent.com/joints/prddes1.htm