|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | | | | | | **W Bullen** | | | | | | | | | | **Date** | | | |  | | | | | | | | **Letterhead**  **LESSON PLAN**  **HOLY FAMILY**  **RC & CE COLLEGE** | | | | | | | | | |
| **Subject / Class** | | | | | | **Y9 Design Technology** | | | | | | | | | | **Time / Period** | | | |  | | | | | | | |
| **Number in class** | | | | | |  | | | | | | | | | | **Boys** | | | |  | | | **Girls** | |  | | |
| Key Stage 3: Highlight the levels targeted in this lesson. Record number of students currently working at each level. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Below level 3 | | | | | Level 3 | | | | | | Level 4 | | | | | | Level 5 | | | | | | | Level 6 | | | | | Level 7 | | | | | Level 8 | | | |
| 1 | 2c | 2b | | 2a | 3c | | | 3b | 3a | | 4c | 4b | | | 4a | | 5c | | 5b | | 5a | | | 6c | 6b | | 6a | | 7c | | 7b | 7a | | 8c | 8b | | 8a |
|  |  |  | |  |  | | |  |  | |  |  | | |  | |  | |  | |  | | |  |  | |  | |  | |  |  | |  |  | |  |
| Key Stage 4: Highlight the grades targeted in this lesson. Record number of students currently working at each grade. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G | | | F | | | | E | | | D | | | | C | | | | B | | | | A | | | | A\* | | | | Pass | | | Merit | | | Dist. | |  |  |
|  | | |  | | | |  | | |  | | | |  | | | |  | | | |  | | | |  | | | |  | | |  | | |  | |  |  |
| ***How many students are currently:*** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Below Expected Progress: | | | | | | | | | | | | | Making Expected Progress: | | | | | | | | | | | | | | Above Expected Progress: | | | | | | | | | | |
| Context of the lesson  **CATERPILLAR – UNDERSTANDING OF PERSONAL (MORAL) DEVELOPMENT**  Students will complete the sequence with the creation of design ideas from a simple set brief but within the constraints of the needs of their chosen customer. The design criteria is an expectation in the annotation of ideas and it is this which is a written prompt to show how deeply students have absorbed and acted on the needs of their user. By designing products that are appropriate for their chosen user they will have succeeded in working within the tolerance of the design requirements of their customer. They will hopefully will have demonstrated a tolerant attitude towards the changing needs of a customer, designing to suit the needs of another citizen rather than designing for their own self and own preferences. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Learning Objectives (please display on whiteboard)   * Identify what skills and personal qualities you can bring to a task by working like a designer * See how applying our individual skills and qualities can help achieve a group goal * Think ‘out of the box’ - make what might seem a crazy idea into an idea that can work and does meet specific design criteria | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Key words: criteria; design roles; communication; constraint; client; client need; marketable; target customer; function; design feature; annotation; human factors; aesthetics. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Key Questions | | | | | | | | Lesson outline | | | | | | | | | | | | | | | | | Progress checks | | | | | | | | | | | | |
| Do Now/Self-starter (engage): | | | | | | | | Read the instructions on slide 2 and discuss in small groups (ideally 4 students per group) the needs of each of the roles identified. Allocate these roles to each other. | | | | | | | | | | | | | | | | | Are students discussing roles and the qualities needed for each role and allocating them democratically within their group. Are students accepting of their given role? | | | | | | | | | | | | |
| Starter (links to prior learning, new concept or skill) | | | | | | | | As a whole class read aloud the Design Brief on slide 5. The teacher can use slide 6 to clarify the task ahead and then volunteer students to read each of the Design Criteria to ensure students are clear on the constraints for their design ideas. As a whole class, discuss design possibilities briefly, using the images on slide 8 to inspire thinking. | | | | | | | | | | | | | | | | | Check students are clear on what is being asked from the design criteria using the ‘what, who, why, how’ prompts about the information in the design criteria.  Can students discuss possible ideas using the stated target customer, product type, and theme once shown the sample chairs as inspiration? | | | | | | | | | | | | |
| Main (model, apply, implement, consolidate, understand) | | | | | | | | All students to begin sketching ideas based on the design criteria discussed. Once students have started to generate and sketch their ideas (approximately 10 minutes into the task) use the PowerPoint to announce the changes to the design criteria at different intervals in time.  Allow enough time between each new change for this to become a challenge for students and forcing them to have to adapt and sketch different ideas. Slide 14 is the prompt that the final design needs to be ready within 3 minutes so ensure this is given at an appropriate time to enable students to have achieved a mostly if not fully completed idea. The student selected to do the Pitch needs to have begun planning their pitch at least 10 minutes before the final 3 minute warning is announced.  Design Groups to share their pitches and take questions from the teacher/remainder of the class about their final design and the information they have given about the design. | | | | | | | | | | | | | | | | | Check students are using the ‘crazy thinking’ format to begin their initial ideas.  Use the Design Criteria slide as a printed resource on the students’ desks to give them a quick check reference of their design criteria.  Once the students have started sketching their ideas, begin announcing the sudden changes and observe their initial responses. Have they accepted the change to the criteria or are they challenging it? Are they adapting their design ideas to suit each of the announced changes? Are they being resourceful and discussing as a group how to adapt their ideas in response to their changes? Have students still fulfilled their roles of time manager, etc. during the period of constant changes to the design criteria or have they begun to focus solely on the designs?  Have students managed to pitch one final idea that fully matches the criteria that has now changed since the beginning of the task? | | | | | | | | | | | | |
| Plenary (review, evaluate, assess) | | | | | | | | Use the 5 question grid to gather student’s individual responses to the design activity just completed. Give 5 minutes silent thinking time for students to have a personal response that is not overly influenced by their peers. Students to then share responses with the teacher and the class. | | | | | | | | | | | | | | | | | Have students observed and interpreted their own responses and behaviour in the same way as the teacher? Which was most important to them – fulfilling the constraints of the design task or feeling satisfied with their own design? Have they avoided the stress of the changes to the design criteria by designing from their initial ideas regardless of the changes, or have they been willing to accept these changes and design accordingly? | | | | | | | | | | | | |
| **Opportunities to develop Numeracy skills:** students to monitor time and clock-watch throughout the design task; consideration of scale, proportion and dimensions of a design and its’ individual design features. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Opportunities to develop Literacy skills:** verbal communication with others; reading and following instructions; use of descriptive language in using the crazy sensible design strategy; written annotation of ideas to communicate the design to others. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Opportunities to develop SMSC:** listening to and accepting the opinions of other people; considering the needs of a target customer when designing a product and ensuring their needs are met; responsibility of a designer to ensure consideration of safety in a design and the impact it could have on the environment. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Differentiation Strategies (for key groups of students inc. SEN, PP, G&T, EAL)**  Basic design equipment such as drawing & coloured pencils provided for students to access equally; display the descriptive language from lesson 4 to support students and give access to thesaurus for both SEN and GT students to gather appropriate language for the design task; print the design criteria and examples of products for on student desks for easy reference. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |