LEARNING PLAN – Yr 7 Technology Mandatory Bio Light

Week	Learning Intentions	Success Criteria
1	The goals of these lessons is to... 1. Rules and expectations of Oakhill College Teachers & Students 2. Locate the Oakhill Learning page 3. Hapara - organising folders and naming conventions 4. Understand the TAS department and all it has to offer over stages 4 - 6 5. Navigate to Onguard [Digital Technologies] 6. Complete Onguard lessons and quizzes 7. Learn the basics of the Design Process - *Identifying and Defining; Researching and Planning; Producing and Implementing; Testing & Evaluating* *8. Glossary of Key Words* 9. Drawing Basics - Orthogonal and Pictorial	I will know I have achieved this goal when I can... ● Understand the projects being taken this year ● Identify the expectations of students in both the classroom and workshops ● Understand appropriate use of laptop in the classroom ● Follow the design process through a folio ● Navigate to the Oakhill Learning website ● Found the Onguard link on the Oak Learning website ● I can identify basic drawing formats and techniques ● I can fluently use the key words used in the TAS design process

Learning Experiences
To achieve this goal we will...

- Log into Oaklife and navigate to Oak Learning
- Discuss the TAS facilities and subjects on offer
- Completing the OnGuard training activities
- Glossary of Key Terms uploaded to ePortfolio on Hapara
- Examine the Design Process and Create a digital representation of the Design Process

Keywords:
Identifying; Defining; Researching; Planning; Producing; Interpret; Implementing; Testing; Evaluating; Workplace Safety; Design Process; Orthogonal Drawing; Pictorial Drawing; Respectful; Collaboration

Resources
OnGuard - General Workshop Safety; Computing in Australian workplaces; Introduction to Workshop PPE
Oaklife
Oak Learning - Technology learning page

Folio Template - **Technology Mandatory Portfolio sample**

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2	The goal of these lessons is to... • Understand what the focus of this Unit is, including the Design Brief and Assessment Task. • Understand Biomorphism as a design principle • Research the effect Mark Newson has had on the designing world and his use of Biomorphisim.	I will know I have achieved this goal when I can… • I can state in my own words what the unit of work is about. • I can state what things I have to produce in order to successfully complete the assessment task. • I can describe what Biomorphisim is and how it affects the design of shapes.

Learning Experiences
To achieve this goal we will...

- View the Biolight assessment task and read through each aspect of the task.
- Watch videos on Mark Newson in regards to Biomorphism and his work.
- Watch Video on Biomorphism
- Complete Biomorphism - Information Sheet

- **Bio Light assessment task**

Week	Learning Intentions	Success Criteria
3	The goal of these lessons is to… ● Become familiar with the design process ● Understand the meaning of Biomorphic design ● Research on Biomorphism	I will know I have achieved this goal when I can… ● I can explain what a design process is ● I can identify items design in a biomorphic style

Learning Experiences
To achieve this goal we will...

- Start sketching Bio Light candle holder base, Top and Cantilever
- Complete a minimum of three scale sketches for each piece
- Lesson on Design Brief, how to write.

- **Design Brief worksheet**
- **Concept sketching worksheet**

Week	Learning Intentions	Success Criteria
4	The goal of these lessons is to… ● Know where tools and other things are in the workshop. ● Understand what a Risk is ● Gain an understanding of the general safety rules in the workshop. ● Understand how to log into OnGuard and complete various safety testing ●	I will know I have achieved this goal when I can… ● I know where tools and other things are in the workshop ● Can state the meaning of Risk ● I can state the general safety rules in the workshop ● I can log into OnGuard and complete various safety tests

Learning Experiences
To achieve this goal we will...

- Be orientated to the workshop.
- Discuss risk and decide on examples of workshop risks
- Learn the general safety rules in the workshop
- Login to onguard and complete safety training and tests.OnGuard Link
- Complete Biomorphism - Information Sheet
- Review or be introduced to the Design Process

Orthographic drawings of project

- Biomorphism - Information Sheet
- **WorkSheet -** Design Process

Week	Learning Intentions	Success Criteria
5	The goal of these lessons is to… ● Learn about automated manufacturing techniques. ● Learn how to program using CAD systems ● Learn how to Program the CNC using FNC file types	I will know I have achieved this goal when I can… ● I can draw basic sketches using fusion 360 ● I can export .jpg files from fusion 360 ● I can import files into CAD CAM wizard ● I can explain the different file types and why each machine needs different languages

Learning Experiences
To achieve this goal we will...

- Participate in a demonstration and explanation of how to mark out the Top
- Introduction to Fusion 360 Download program setup and basic sketching techniques.
- complete design for base of the candle holder.
- export file as a .jpg and email to the teacher.
- complete demonstration on the CNC machine

- **Marc Newson News feed**
- **CNC Machine video**

Week	Learning Intentions	Success Criteria
6	The goal of these lessons is to… ● Understand about automated manufacturing techniques ● Learn how to cut curves using a coping saw ● Learn to set the blade of the coping saw ● Learn how to setup and drill using a pedestal drill	I will know I have achieved this goal when I can… ● Describe the difference between manual process and automated processes. ● setup a coping saw with the blade facing the correct way ● use a coping saw to cut the curves on my job ● setup and drill the holes on my candle holder using a pedestal drill

Learning Experiences
To achieve this goal we will...

- Participate in the machining of the bases using the CNC machine.
- Participate in a demonstration and explanation of how to cut out the top using coping saw.
- Participate in a demonstration and explanation of how to Drill 48mm blind hole in the top for the candles to sit in.

Week	Learning Intentions	Success Criteria
7	The goal of these lessons is to… ● identify the different file types and techniques	I will know I have achieved this goal when I can… ● Describe a couple of file shapes and types

Learning Experiences
To achieve this goal we will...

- Participate in a demonstration and explanation of how to file the edges of the top piece
- comenence marking out cantilever
- Cut out cantilever with coping saw
- File edges of cantilever

Week	Learning Intentions	Success Criteria
8	The goal of these lessons is to… ● different joining techniques between the base and the cantilever	I will know I have achieved this goal when I can… ● describe the joining method to attach my cantilever to my base

Learning Experiences
To achieve this goal we will...

- Participate in a demonstration and explanation of how to join the cantilever to the base
- Participate in a demonstration and explanation of how to join the cantilever to the top

Week	Learning Intentions	Success Criteria
9	The goal of these lessons is to… ● Apply a final finish to my Candle holder	I will know I have achieved this goal when I can… ● Successfully apply finish to the Candle holder

Learning Experiences
To achieve this goal we will...

- Sand and finish Bio light candle holder