Moreland University
TEACH-NOW Graduate School of Education

Multidisciplinary Unit Plan

Teacher Candidate Name: kamila bekshentayeva
Unit Name: Classic design
Subject Area: Design technology
Grade Level(s): 11

Introduction: What will students learn in this unit and why is it important? Describe the multidisciplinary theme and student outcomes, including guiding questions and real-world connections.

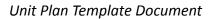| Unit Introduction |
|---|
| "Classic design" is included in core content for standard and higher level students (IB SL and HL).
 Essential ideas:
 - A classic design has a timeless quality, which is recognized and remains fashionable.
 - For a design to become a classic design, the form can transcend the function.
 The students will be able to:
 ●Consider how a design classic is instantly recognizable and provokes a variety of different emotional reactions in people, such as nostalgia or innovation.
 ●Understand how form can be dictated by other functions such as design for manufacture techniques, for example, design for disassembly.
 ●Explore other objects where either practical function or psychological function has been the determining factor in the design.
 Multidisciplinary theme: Design, technologies, history, art, literacy |
| Guiding Question(s) and/or Real-World Connections |
| *Consider how you would make the unit relevant to students. What real-world connections or guiding questions would you use to hook your students?* |
| ● What are the characteristics of classic design?
 ● What is timelessness?
 ● How can form be dictated by function?
 ● What are practical and psychological functions in classic design?
 ● What is the purpose of retro-styling? What are the examples of retro-styling in classic design?
 ● How does a classic design defy obsolescence and transcend its original function?
 ● How does the role of mass production contribute to a product reaching classic design status?
 ● How does the constant presence of a product in a changing context lead to classic design status? |

Content Standards: What are the content standards or curricular outcomes of this unit as provided by your school, district, or government? Add all applicable content-area standards, including cross-curricular standards. (Add rows as needed.)

Content Area	Standard(s) Addressed
Nature of design 1	3.3: seek, establish and verify broad concepts and general principles that underlie design methodology
Nature of design 2	3.10: appreciate the influence of others within the field of design including historical and current leaders, movements and organizations.
General IB:	Lifelong learners 2.3: Students understand the connections between the IB learner profile and international-mindedness. (0402-02-0300) Covered IB learner profile attributes in this unit: Inquirer, Thinker, Communicator, Knowledgeable, Reflective International mindedness: 6.1 Classic designs are often recognized across culture and hold iconic status. 6.2: The emergence of retro-styling products as new technologies are developed relate to the emotional response that comes with nostalgia. This is often not only different between countries and between generations, but at the same time can transcend both. IB PSP: Programme standards and practices (2020) from ibo.org: https://resources.ibo.org/dp/subject-group/Design-technology/?lang=en

Literacy Standards: What are the literacy standards or curricular outcomes of this unit as provided by your school, district, or government? Add all applicable literacy-area standards. (Add rows as needed.)

Content Area	Standard(s) Addressed
Language Arts	CCSS.ELA-LITERACY.W.5.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. CCSS.ELA-LITERACY.W.5.7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
Speaking and Listening	SL.8.2: Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation. SL.8.4: Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation. SL.8.1.D: Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented. Common Core: English Language Arts
Reading: Informational Text	RI.8.1: Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text. RI.8.2　Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.

Overarching Goals: What are the big-picture goals for student achievement and mastery in this unit? Orient these goals around overall student skills, growth, and development. Your unit objectives should be derived from these goals.

- Students will learn the main characteristics of classic design.
- Students will learn about the conflict between function and form.
- Students will learn about the practical and psychological functions of design and apply this knowledge to classic design examples.
- Students will learn about the retro-styling concept in classic design.
- Students will practice applying 21st century skills while working on lesson activities.
- Students will be applying international-mindedness when studying the chapters of topic 6.

Objectives: What are the lesson objectives for this unit that will lead students to complete specific tasks and meet the overarching goals? Objectives should use language that is specific, measurable, achievable, relevant, and timely (SMART).

Content-Area and Literacy-Area Objectives
Ex. Students will be able to write one content paragraph of a blog post citing one source in MLA format and including a hyperlink to that source. Ex. Students will be able to list three comparisons between the seasonal changes of California, USA and Maharashtra, India and predict the impacts on farming in each region. ### Students will be able to: - Describe the characteristics of classic design by recognizing and providing the general and personal examples of classic design items from every-day life by the end of the first lesson. - Consider (while conducting individual research) how a design classic is instantly recognizable (iconic) and provokes a variety of different emotional reactions in people, such as nostalgia or innovation during lesson 1. - Present their findings (based on case-studies) and apply new terminology: obsolescence, dominant design, omni-present, mass production in lesson 2. - Compare the products designed with a focus on form or with a focus on function using and by providing classic design examples by the end of lesson 3. - Identify practical and psychological functions in classic design by reading case studies and collaborating in groups in lesson 4. - Explain the purpose of retro-styling (after watching a video) and provide examples of retro-styling in classic design in lesson 4. - Be able to summarize the key ideas from the unit using the new terminology, apply design thinking to various case studies, be comfortable with the concepts: be able to answer the questions (open/closed ended); HL: Based on the summative task: "improve the foyer area of school by designing a chair/sofa" apply Criterion A only (as a mock IA). Criterion A1: Design opportunity (identify appropriate problem) A2: design brief (provide solution and

outcome) A3: Design requirements

Literacy and 21ˢᵗ Century Goals: How does this unit support students' language and literacy development? Include literacy skills, key vocabulary, and 21st-century skills (i.e., critical thinking, creativity, collaboration, communication, information/technology literacy).

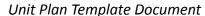| Literacy Skills |
| --- |
| **Oral language skills** (when answering questions, presenting their findings, summarizing reading, when working in groups, brainstorming, discussing, presenting in groups)
Self-regulation and self-monitoring (while reading, speaking, writing, when working in groups, brainstorming, discussing, presenting in groups)
Connecting background knowledge to the information in the text/video (reading,when researching, reading/watching/listening primary/secondary, online resources, preparing presentation, searching for examples online)
Reading comprehension (reading with purpose, when researching, reading primary/secondary, online/paper resources)
Writing (working on formative/summative assessments, writing essays, projects) |
| Vocabulary |
| Design-specific **vocabulary identification, comprehension, utilization** in formative/summative assessments via reading/speaking/writing
Matching terms and definitions
Providing definitions
Creating mind maps
Understanding/breaking down the etymology (origin) of certain terms in classic design (e.g. Bauhaus, Artdeco, etc.) |
| 21st-Century Skills |
| The students, through independent and collaborative activities, will be able to practice the following 21st century skills:

Critical thinking (when answering questions and working on formative/summative assessments)

Creativity (when working in groups, brainstorming, researching independently, providing examples, working on formative/summative assessments)

Collaboration (when working in groups, brainstorming, discussing, presenting in groups) |

Communication (when working in groups, brainstorming, discussing, presenting in groups)

Information literacy (when researching, reading primary/secondary, online/paper resources)

Media literacy and **Technology literacy (**when researching, reading/watching/listening primary/secondary, online resources, preparing presentation, searching for examples online**)**

These skills correspond to IB-learner profile attributes.

Prerequisite Skills: What skills and prior knowledge do students need before this unit?

- Students should be able to satisfy the following general course criteria: Intermediate-high skills in: problem solving, critical thinking, communication, collaboration, creativity; Students should have strong interest and curiosity in design.
- Students should have submitted the Unit 5 summative quiz to begin this unit.
- Students should have a preliminary understanding of user-centric design.
- HL Students should know the Design Criteria A, B, C, D (for a summative project after the end of the unit).

Assessments: What form of evaluation tools will you use to measure student learning and achievement both at the end of the unit and throughout? Clarify any modifications you would make based on student readiness, ability level, primary language, or interest.

Summative Assessment
(Include projects, performances, tasks, or traditional tests you will implement for students to demonstrate that they have met the overarching goals and objectives.)

Description(s)	Modifications
1. Unit quiz (SL and HL students): quiz of 20 questions uploaded on Moodle to test their understanding of the entire unit. The goal is to ensure the students have mastered the standards, fulfilled the objectives. Time limit: 35 minutes	1. Unit quiz: Time limit: 45 minutes for IEP students Time limit for ELL students and other: 40 minutes ELL, Dyslexia/students who experience reading difficulty may use support material (dictionaries, word-to-image, translation tools, etc.) Special cases: some students can take short breaks for short (1-3 minutes) physical activity (movement) under supervision (outside of classroom - not to distract other students) Special cases: flexible seating
2. Summative assessment (only HL students) (preparation for IA - mockIA criteria A only) "Seating task" objective: students need to create a solution of a chair/sofa for school's foyer area using the ideas from previous and current units "Innovation" and "Classic design" Criteria A1: 200 words, criteria A2: 150 words, criteria A3: 800 words. Due: end of unit 6. Portion of activities to be done independently outside of class as homework.	2. Move deadline +1 week for those who are struggling to complete in time (if request form is submitted). Portion of activities to be done independently outside of class. If special support is needed I am available after classes/lunch time. This activity is only for IB HL (high level students (college style)) - it intends to prepare them for the Internal assessment in Grade 12 (elements of the units (including unit 6) will be expected to be applied in this task)

Formative Assessments
(Include checks for understanding, quizzes, activities, and other progress monitoring as students move toward mastery of the overarching goals and objectives.)

Description(s)	Modifications
In-class (can be used Online) Activity 1:	This activity is only for high-level students (I

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Group activity (split the class in 3-4 teams) Each team needs to come up with a classic chair design. There is 1 engineer, 1 ergonomist, and 1-2 designer(s) (who is (are) into aesthetics), and 1 marketing specialist. Please provide briefly what each specialist prioritizes. Research and present to the class the final chair design (photo from the Internet) that would balance all your needs. Why did you end up with this design Time limit: 20 minutes	provide an alternative activity for IEP students: worksheet with images to fill out or game) I create a heterogenous group (regarding the language: native speakers + ELL) ELL, Dyslexia/students who experience reading difficulty may use support material (dictionaries, word-to-image, translation tools, etc.) Special cases: some students can take short breaks for short (1-3 minutes) physical activity (movement) under supervision (outside of classroom - not to distract other students) Special cases: flexible seating
In-class (can be used Online) Activity 2: Independent research: Based on the case study of Panton chair: explain the Practical function vs Psychological function and how they might relate to the Panton Chair. Each team needs to study the principles of retro-styling - and create a chair using retro-styling strategy - using the form and decoration of classic design from a particular period of time. Get inspired by the ideas of the past. Be able to explain if you prioritized form or function. Time limit: 20 minutes	This activity is only for high-medium-level students (I provide an alternative activity for IEP students worksheet with images to fill out or game) I create a heterogenous group (regarding the language: native speakers + ELL) ELL, Dyslexia/students who experience reading difficulty may use support material (dictionaries, word-to-image, translation tools, etc.) Special cases: some students can take short breaks for short (1-3 minutes) physical activity (movement) under supervision (outside of classroom - not to distract other students) Special cases: flexible seating A lot of auxiliary resources are available (book chapters, articles, websites).

In-class (can be used Online) Activity 3: Formative quiz (assessed individually) - Kahoot or Quizlet - to check the understanding at the end of each part of topic 6. Expected time: 15-20 minutes	All students are expected to participate. In the form of a whole class discussion. ELL, Dyslexia/students who experience reading difficulty may use support material (dictionaries, word-to-image, translation tools, etc.) Special cases: some students can take short breaks for short (1-3 minutes) physical activity (movement) under supervision (outside of classroom - not to distract other students) Special cases: flexible seating
In-class (can be used Online) Activity 4: 1. True or False (formative) (Statements from the chapter 6 "Classic Design") - I include the statements on a ppt slide, I use a cold calling method (to keep students focused). I will ask a student to read a statement and reply if the statement is "true" or "false" and why; after her/ his response, if there is anything to add to the statement, I will ask the class to participate. We will keep going until there are no more statements. Expected time: 5 minutes	All students are expected to participate. In the form of cold calling + whole class discussion afterwards. ELL, Dyslexia/students who experience reading difficulty may use support material (dictionaries, word-to-image, translation tools, etc.) Special cases: some students can take short breaks for short (1-3 minutes) physical activity (movement) under supervision (outside of classroom - not to distract other students) Special cases: flexible seating
In-class (can be used Online) Activity 5: Study guides on moodle for Topic 6 - The study guides are formative assessments that help to review the material (by answering questions, by researching, analyzing, and following tasks) and to prepare for formal	Given as a homework assignment. If special support is needed IEP members and I are available after classes/lunch time. A lot of auxiliary resources are available (book chapters, articles, websites).

summative assessments (unit quizzes and exams). The successful completion without/minimum number of mistakes would indicate the student is completely following/understanding the class material and no/minimal adjustments are required; poor performance would indicate the opposite (approach, slides, formative assessments have to be reviewed, especially if a large amount of students has failed the study guide tasks) My goal is to gather such data, analyze, and make according decisions. Given as a homework assignment. A sample activity (for topic 5) can be found here: https://docs.google.com/document/d/16J92tebEIIM27Iu7aC-sa_RsdGifDinK/edit	
In-class (can be used Online) Activity 6: Group discussion based on a case study of retro-styling (with further oral presentation) - My goal is to let the students think in terms of "design thinking", let them research/explore, and apply critical thinking. This type of assessment is a great way to not only check their understanding, but also to enhance their problem-solving, collaboration/team-work skills, presentation skills, etc. Working on this case study would let them think broadly about all the aspects of innovation in their everyday lives.	I present the task in the visual form (powerpoint + images) + my explanations of the expectation of the task. Additionally I provide video (with subtitles) to help students to understand deeply (also helps those who prefer audio-video representation of information). A lot of auxiliary resources are available (book chapters, articles, websites).
In-class (can be used Online) Activity 7: Exit-ticket questions as a lesson overview (last	All students are expected to participate. In the form of cold calling + whole class discussion afterwards.

10 minutes of a lesson), the responses will indicate students level of understanding, i.e., questions will cover the knowledge students should demonstrate as a mastery of the standard: -recognize and provide the examples of classic design items; -describe the characteristics of classic design; -compare the products designed with a focus on form or with a focus on function using classic design examples; -identify practical and psychological functions in classic design; -explain the purpose of retro-styling and provide examples of retro-styling in classic design	ELL, Dyslexia/students who experience reading difficulty may use support material (dictionaries, word-to-image, translation tools, etc.) Special cases: some students can take short breaks for short (1-3 minutes) physical activity (movement) under supervision (outside of classroom - not to distract other students) Special cases: flexible seating A lot of auxiliary resources are available (book chapters, articles, websites).

Lessons: How will you sequence the lessons, formative assessments, and summative assessment in this unit? Briefly describe each lesson including techniques you could use to differentiate the product, content, process and/or leading environment for the diverse needs of the students listed in the case study and 504 plan in the activity resources.

- Lesson 1
  - Objective: 1. Describe the characteristics of classic design by recognizing and providing the general and personal examples from every-day life of classic design items by the end of the lesson. 2. Consider (while conducting individual research) how a design classic is instantly recognizable (iconic) and provokes a variety of different emotional reactions in people, such as nostalgia or innovation during lesson 1.
  - Prerequisite Skills: described above in Prerequisites section
  - Description: Students will learn about characteristics of classic design, image status and culture; they will explore design schools such as Bauhaus, art-deco, etc. They will answer the following question:
    - How image makes a classic design instantly recognisable and provokes emotional reaction

    Through powerpoint presentation, activities (questions, independent research) they will find out tha a classic design is not simply defined by how well it functions or its impact. Classic designs can be recognized as from their design movement/era. Yet, originality - whether it is evolutionary or revolutionary-seems to be the trait that makes a product "timeless".
  - Differentiation: ELL, Dyslexia/students who experience reading difficulty may use support material (dictionaries, word-to-image, translation tools, etc.)
    Special cases: some students can take short breaks for short (1-3 minutes) physical activity (movement) under supervision (outside of classroom - not to distract other students)
    Special cases: flexible seating; A lot of auxiliary resources are available (book chapters, articles, websites). More information in the modification section for activities.

- Lesson 2
  - Objective: Present findings (based on case-studies) and apply new terminology: obsolescence, dominant design, omni-present, mass production.
  - Prerequisite Skills: described above - in Prerequisites section; understanding of the previous topic from lesson 1.
  - Description: Students will learn through various resources (slides, video, reading) and activities about: Obsolescence, mass production, omnipresence, dominant design
    They will be able to answer the following questions:
    - How a classic design defies obsolescence and transcends its original function
    - How the role of mass production contributes to a product reaching classic design status
    - How the constant presence of a product in changing context leads to classic design status
    - How classic design are dominant in the marketplace and difficult to change
  - Differentiation: ELL, Dyslexia/students who experience reading difficulty may use support material (dictionaries, word-to-image, translation tools, etc.)
    Special cases: some students can take short breaks for short (1-3 minutes) physical activity (movement) under supervision (outside of classroom - not to distract other students)
    Special cases: flexible seating; A lot of auxiliary resources are available (book chapters, articles, websites). More information in the modification section for activities.

- Lesson 3
  - Objective: Compare the products designed with a focus on form or with a focus on function using and by providing classic design examples by the end of lesson 3.
  - Prerequisite Skills: described above - in Prerequisites section; Understanding of lessons 1-2
  - Description: Through formative activities (described above in the formative activities section)

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and through various resources (besides "ttt - teacher talking time") the students should learn about: form vs. function: conflict and compromise. They will think about the following question:

Classic design often appeals to our emotions. Are emotions universal?

Classic design holds "form follows function" as a fundamental principle, but this is not always evident in practice. Some products are so well designed with function as their primary goal, that their use is intuitive. As designers develop new technologies, the lines between the form and function of a product continue to blur.

- ○ Differentiation: ELL, Dyslexia/students who experience reading difficulty may use support material (dictionaries, word-to-image, translation tools, etc.)

  Special cases: some students can take short breaks for short (1-3 minutes) physical activity (movement) under supervision (outside of classroom - not to distract other students)

  Special cases: flexible seating; A lot of auxiliary resources are available (book chapters, articles, websites). More information in the modification section for activities.

- ● Lesson 4
  - ○ Objective: Identify practical and psychological functions in classic design by reading case studies and collaborating in groups.
  - ○ Prerequisite Skills: described above - in Prerequisites section; understanding of lessons 1-3
  - ○ Description: Through formative activities (described above in the formative activities section) and through various resources powerpoint, video, images, articles (besides "ttt - teacher talking time") the students should learn about: Practical vs psychological aspects of classic design.

    They will Identify products where either practical or psychological function has been the determining factor in the design.
  - ○ Differentiation: ELL, Dyslexia/students who experience reading difficulty may use support material (dictionaries, word-to-image, translation tools, etc.)

    Special cases: some students can take short breaks for short (1-3 minutes) physical activity (movement) under supervision (outside of classroom - not to distract other students)

    Special cases: flexible seating; A lot of auxiliary resources are available (book chapters, articles, websites). More information in the modification section for activities.

- ● Lesson 5
  - ○ Objective: Explain the purpose of retro-styling (after watching a video) and provide examples of retro-styling in classic design.
  - ○ Prerequisite Skills: described above - in Prerequisites section; understanding of lessons 1-3
  - ○ Description: Through formative activities (described above in the formative activities section) and through various resources powerpoint, video, images, articles (besides "ttt - teacher talking time") the students should learn about: retro-styling and its application in classic design. Students will explore the following:
    - Comparison of retro-styled products with the original production models in relation to form and function.
    - How retro-styling a new product needs to respect and understand the original form and underlying structure before making changes.
  - ○ Differentiation: ELL, Dyslexia/students who experience reading difficulty may use support material (dictionaries, word-to-image, translation tools, etc.)

    Special cases: some students can take short breaks for short (1-3 minutes) physical activity (movement) under supervision (outside of classroom - not to distract other students)

    Special cases: flexible seating; A lot of auxiliary resources are available (book chapters, articles, websites). More information in the modification section for activities.

- ● Lesson 6 (Repeat as necessary.)
  - ○ Objective: Be able to summarize the key ideas from the unit using the new terminology, apply design thinking to various case studies, be comfortable with the concepts: be able to answer the questions (open/closed ended); HL: Based on the summative task: "improve the foyer area of school by designing a chair/sofa" apply Criterion A only (as a mock IA). Criterion A1:
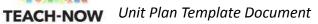
Design opportunity (identify appropriate problem) A2: design brief (provide solution and outcome) A3: Design requirements
- ○ Prerequisite Skills: described above - in Prerequisites section; Understanding of lessons 1-4
- ○ Description: Summary and activities; preparing for Criterion A (HL students)
- ○ Differentiation: ELL, Dyslexia/students who experience reading difficulty may use support material (dictionaries, word-to-image, translation tools, etc.)
  Special cases: some students can take short breaks for short (1-3 minutes) physical activity (movement) under supervision (outside of classroom - not to distract other students)
  Special cases: flexible seating; A lot of auxiliary resources are available (book chapters, articles, websites). More information in the modification section for activities.

Remediation & Next Steps: How will you remediate, review, and extend prior to moving to the next unit? Include considerations for students who lack prior knowledge.

Remediation Activities	• Analyze errors before retakes (after or during each formative assessment) • Provide options for tutoring (students can stay after class(es), during lunch period, they can always ask questions (that may be addressed before or after class - if not relevant to current activity)) • Encourage reviewing (provide time to review and discuss (optional)), reverse the roles and ask the student to explain it to you • Work on organization and study habits (Show the student how to use a graphic organizer Work on the student's note organization Share strategies on good note-taking) • Introduce differentiated instruction (various resources, various format of activities, grouping, flexible seating, vary time, etc.)
Review Activities	- Have students review the assessment to analyze their errors. Ask students to determine exactly where they went wrong and if they have any ideas on how they can do better. - Group studies after/during class - Provide similar tasks as a homework
Extension Activities	• Study guides and other resources we (DT department teachers) upload on Moodle serve as extension activities they can study in addition to required material provided in class. • Provide similar quizzes to practice for the unit test. • Provide past years IA projects as examples for HL student. • Resources like kahoot, quizlet serve as additional resource for preparation for formative/summative assessments (links in moodle) • various IB websites for design technology (links available in moodle)

References: Add resources you used to create this unit plan and links to important texts and tools referenced within.

Links

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1. **IB PROGRAMME STANDARDS AND PRACTICES**

2. **Design technology standards and practices**

3. **Design technology IB DP Guide**

4. **Design technology teacher support material**

5. **Design and Inquiry**