

GROUP 4–DESIGN TECHNOLOGY

NATURE OF THE SUBJECT

Design, and the resultant development of new technologies, has given rise to profound changes in society: transforming how we access and process information; how we adapt our environment; how we communicate with others; how we are able to solve problems; how we work and live.

"Design Technology Guide. First Assessment 2016." *Ibo.org*. IBO, 2015. Web. 30 Sept. 2017.

AIMS

To develop:

1. a sense of curiosity as they acquire the skills necessary for independent and lifelong learning and action through inquiry into the technological world around them
2. an ability to explore concepts, ideas and issues with personal, local and global significance to acquire in-depth knowledge and understanding of design and technology
3. initiative in applying thinking skills critically and creatively to identify and resolve complex social and technological problems through reasoned ethical decision-making
4. an ability to understand and express ideas confidently and creatively using a variety of communication techniques through collaboration with others
5. a propensity to act with integrity and honesty, and take responsibility for their own actions in designing technological solutions to problems
6. an understanding and appreciation of cultures in terms of global technological development, seeking
7. and evaluating a range of perspectives
8. a willingness to approach unfamiliar situations in an informed manner and explore new roles, ideas
9. and strategies so they can articulate and defend their proposals with confidence
10. an understanding of the contribution of design and technology to the promotion of intellectual,
11. physical and emotional balance and the achievement of personal and social well-being
12. empathy, compassion and respect for the needs and feelings of others in order to make a positive
13. difference to the lives of others and to the environment
14. skills that enable them to reflect on the impacts of design and technology on society and the environment in order to develop their own learning and enhance solutions to technological problems.

"Design Technology Guide. First Assessment 2016." *Ibo.org*. IBO, 2015. Web. 30 Sept. 2017.

SYLLABUS – OUTLINE

(The syllabus is subject to changes according to the needs and preferences of the class)

Year 1

- **Topic-1: Classic Design**
- **Topic-2: Innovation and Design**
- **Topic-3: Human Factors and Ergonomics**
- **Topic-4: Modelling**
- **Topic-5: Raw Materials To Final Production (1st half)**
- **Topic HL only-1: Innovation and Markets**
- **Topic HL only-2: User-Centered Design**

Year 2
<p>SL</p> <ul style="list-style-type: none"> • Topic SL-5: Raw Materials To Final Production (2nd half) • TopicSL-6: Resource Management & Sustainable Production <p>HL</p> <ul style="list-style-type: none"> • Topic HL-3: Sustainability • Topic HL-4: Commercial Production

ASSESSMENT – OUTLINE

Assessment component	Weighing
<p>External assessment SL</p> <p>Paper 1 (45 min)</p> <ul style="list-style-type: none"> • 30 multiple-choice questions on the core material <p>Paper 2 (90 min)</p> <ul style="list-style-type: none"> • Section A: one data-based question and several short-answer questions on the core material • Section B: one extended-response question on the core material (from a choice of three) <p>External assessment HL</p> <p>Paper 1 (60 min)</p> <ul style="list-style-type: none"> • 40 multiple-choice questions on the core and HL extension material. <p>Paper 2 (90 min)</p> <ul style="list-style-type: none"> • Section A: one data-based question and several short-answer questions on the core material • Section B: one extended-response question on the core material (from a choice of three). <p>Paper 3 (90 min)</p> <ul style="list-style-type: none"> •Section A: two structured questions on the HL extension material. • Section B: one structured question on the HL extension material based on a case study. 	<p>30%</p> <p>30%</p> <p>20%</p> <p>20%</p> <p>20%</p>
<p>Internal assessment</p> <p>The externally-moderated Internal Assessment task consists of one design project taking about 40 hours SL, or 60 hours HL.</p> <p>The work should be maximum38 pages for SL, or 50 pages for HL.</p> <p>The task produced should be complex and commensurate with the level of the course.</p>	<p>40%</p>