



ARAB UNITY SCHOOL

CURRICULUM OVERVIEW

YEAR 11

2019 – 2020

A guide for Parents and Students

Syllabus aims

The Cambridge IGCSE Design and Technology syllabus aims to:

- develop creative thinking in areas relevant to design and technology
- apply problem solving skills to practical and technological problems
- develop the communication skills central to design, making and evaluation
- apply knowledge and understanding to the design and making of products, taking into consideration sustainability and the wider impact on society
- encourage candidates to apply learning to areas of personal interest
- develop a range of transferable skills and the attributes of the Cambridge learner
- develop the ability to make aesthetic, economic, moral and technical value judgements.

<p>Term 1</p>	<p>1. Structures</p> <p>Structural members, Nature of structural members, Applied loads and reaction, moments, Materials, joints, testing on structures</p> <p>BYOD LINK http://www.technologystudent.com/struct1/strut1.htm</p> <p>Energy, bearings, systems</p> <p>2.Electronics</p> <p>Transistors, diode, LED seven segment display Transducers, thermistors, capacitors BYOD LINK http://www.technologystudent.com/elec1/transis1.htm BYOD LINK http://www.technologystudent.com/elec1/capac1.htm</p> <p>Transistors, diode, LED seven segment display time delay circuits, 555 timers, monostable astable circuits, logic gates, comparators</p> <p>3. Final project model and the project</p>	<p>Quiz on structures (self-managers/Effective organizers/team workers)</p> <p>Student teach on LED and seven segment display (Reflective learning)</p>	<p>Internal assessment 1 (structures) Sept 25</p> <p>Curricular test on structures (Oct 20-24)</p> <p>Winter assessment- Nov 17-21 (structures and Electronics portions)</p>
			<p>Winter assessment- Nov 17-21 (structures and Electronics portions)</p>
		<p>Winter break</p>	

<p>Term 2</p>	<p>Revision</p> <p>product design drawing</p>	<p>Final projects on electronics, structures or mechanisms (creative thinking, self-organising and enquiring)</p> <p>Design competition March 25(creative thinking, self-organising)</p>	<p>Feb (9-13) curricular tests based on electronics and structures</p> <p>Jan 6 th project submission</p> <p>Feb 10 Final report submission</p> <p>Feb 23 internal assessment electronics and structures</p>
			<p>Spring Exam-March1-12)</p>
			<p>Final end of year exam - May 7- 11 (All units)</p>