BERLIN BRITISH SCHOOL
Course overview
DESIGN

Grade 6	
Autumn term	**Delving into Design** An introduction to the new subject of Design. How the subject works, safety instructions and what the students can expect from their first year in the subject. The students will receive an overview of how each Design project is structured and what they will be expected to do and complete for each of these upcoming projects. The students will also learn about safety instructions when using the tools of the classes, including scissors, paint, glue, cutting boards etc. The students will finish this introduction unit by creating a safety poster for their class regarding one of the topics we have discussed.
Spring term	**Arcade Cabinet Design** In a cross-curricular Unit with ICT, the students will be designing and building an Arcade Cabinet for the video game that they will be programming. The students will be required to research existing arcade cabinets and how they work before planning and then building their arcade cabinets, both on the outside for aesthetics and on the inside, designing a working controller to function along with the arcade cabinet with their video game.
Summer term	**Roll the Dice** The students will be designing and building their own board game, developing the rules and the pieces that they will use to play the game.

	The students will design and develop their own board game which will include the rules, the board and the pieces. Students will be allowed to use a range of materials to develop their game and each game will be tested by other members of the year group.

Grade 7	
Autumn term	**Robo-Sumo** The students will be designing and building Lego Robots to compete in a Robotic Sumo Wrestling competition. The students will learn the rules of the competition and what their robot must do to achieve victory. Using the Lego materials available to them, they must design, build, program and test their Sumo Robot in teams to win the class tournament.
Spring term	**BBS Represent** The students will be researching and developing a logo for a fictional company. The students will learn how logos are used to represent everything from businesses, sports teams and schools and how each logo must try to represent what that organisation does while being simple and instantly recognisable. The students will learn about aesthetic thinking as well as functionality to their target audience. How do images affect us and their company/owners?
Summer term	**Eco City** The students will learn about sustainability and how cities around the world are changing to be more environmentally and person friendly. The students will learn about resource management and sustainability through researching various real-life cities and projects. The students will then design their own Eco City, modelling it first in Lego before moving to a 3D digital model.

Grade 8	
Autumn term	**School Tour** Recent global events have made it clear that travelling and experiencing places for yourself can be more difficult than ever before. Therefore, the school requires a digital counterpart for those who may be unable to tour or visit. This unit will cover the planning and creation of a digital version of the school with as much detail and information as possible. The students will be required to meet exact requirements of clients and projects in the future. By researching and developing the details of the school in a digital format, they will learn to think in a more project and client focused manner. This unit will be planned and created in a Minecraft-style world, where the students will have to research and plan how best to faithfully recreate the school with the resources available to them.
Spring term	**Robo-Jousting** The students will learn the rules of the competition and what their robot must do to achieve victory. Using that and the Lego materials available to them, they must design, build, program and test their Jousting Knight in teams to win the class tournament.
Summer term	**Berlin-Sandbox** The students will take part in a physical game design competition, in which they will work to design and create festival/carnival style games such as pinball, target practice and other games for their fellow students. Students will have to consider the design of their game for both function and aesthetics to attract the most customers, as well as ensuring that the game can handle the use of multiple students over a prolonged period of time.

Grades 9 + 10: IGCSE Design	
Introduction	Cambridge IGCSE Design & Technology is divided into three specialist pathways: Graphic Products (which deals with the design and communication of ideas), Resistant Materials (which focuses on the manufacture of designs), and Systems & Control (which addresses how structures, mechanisms and electronics are used in design and manufacture). Students at BBS follow the Graphic Products pathway.

Graphic Products aims to develop the skills that designers use within the context of their design activities in the design studio. It also aims to develop an awareness of the importance of communication and modelling techniques concerned with promotion and illustration of ideas and their interrelationship with all stages in commercial manufacture and promotion. |
| Grade 9 | **Product Design**

• Gathering requirements and producing design briefs and specifications.
• Generation of ideas.
• Evaluation, selection and organisation of ideas.
• Development of ideas and designs.
• Implementation and realisation.
• Health and safety.
• Research and data gathering.
• Design and technology in society (including aesthetic design movements).
•Environment and sustainability.
• Technology in design.

Graphic Products

• Formal drawing techniques (orthographic, oblique, planometric and isometric). Projections, views and developments.
• Presenting and communicating information.
• Materials and modelling.
• Use of drawing instruments and CAD/CAM software.
• Manufacture of graphic products. |
| Grade 10 | Coursework |