

Design project ideas

THE BUILT ENVIRONMENT

Architectural Design

Monumental Task

| | |
|------------------|--|
| Design Statement | Monuments and memorials can make a focal point for public parks. There are a great range of monument designs from the Art Deco war memorial in Hyde Park, Sydney to the Vietnam War Memorial in Washington DC, USA. Each has its own presence and impact on the viewer. Monuments can be buildings, walls, fountains, sculptures or pools. |
| Design Task | Design a public monument which commemorates a person, group, or event of local importance. Specify location, materials it is made from, its size and any text to be included. |
| Teacher Prompts | Study a range of monuments, their effectiveness, and construction materials as design related content. Communicate designs through drawing two rendered side views. |

Bushwalker Hut

| | |
|------------------|---|
| Design Statement | Not all designers of buildings wear the name 'architect'. Traditional cultures use the building materials and methods available to them. Their buildings become as much a reflection of their culture as story-telling and dance. This kind of architecture is known as 'vernacular design'. Australian vernacular design was born out of necessity of making do in the bush during the time of the early settlers. The legacy of this design continues today. Although there are stricter building codes, some of the sense of 'making do' can be incorporated into more modern designs. |
| Design Task | Design a bushwalker's hut that could provide basic shelter. Specify the location and the kinds of materials available that could be used for the different parts of the hut, particularly for structure and cladding. Communicate your design by sketches, front and side views, a location photo, and samples of possible building materials. |
| Teacher prompts | Study vernacular design and Australian vernacular design as design related content. Communicate designs through sketches, models and material samples. |

Streetscapes

| | |
|------------------|---|
| Design Statement | “Safety research has drawn a correlation between street patterns, building location and design with the incidence of crime.” The proper design and effective use of the built environment can lead to a reduction in the fear of incidence of crime and an improvement in the quality of life. |
| Design Task | Design a streetscape to nurture a healthy and safe living environment. |
| Teacher Prompts | Discussion could include gardens, street lighting, car spaces, playgrounds, and parks. Source http://www.ipe.nt.gov.au/whatwedo/planning/ybe http://www.australianstreetscape.com.au/ |

Hospital Rec. Room

| | |
|------------------|---|
| Design Statement | For whatever reason, teenagers can be in hospital for extended periods of time. The need for dedicated hospital facilities for adolescent patients has been proven to aid the healing process. Research has revealed five factors as being an essential part of the recovery process, they are: <ul style="list-style-type: none">• Peer contact• Privacy• Mobility• Independence• Educational continuity |
| Design Task | Design a hospital recreation space for adolescent inpatients that addresses these factors. |
| Teacher Prompts | Remember wheel chair access to all facilities. |

Environmental Design

Indoor Outdoor Living

| | |
|------------------|---|
| Design Statement | Outdoor entertaining is an essential part of Australian living. External spaces are designed as extensions of the interior they flow from. Details like stone and marble elements, elaborate lighting systems, ceiling beams and exterior art are popular for enhancing outdoor spaces. |
| Design Task | Design and create plans for a living area that connects and flows seamlessly from indoor/outdoors, creating one living space. |
| Teacher Prompts | Indoor-outdoor pools, French doors, moving floors, natural elements, garden walkways. |

Water Features

| | |
|------------------|---|
| Design Statement | Feng shui (pronounced fung shway) is the ancient Chinese system of arranging environments to maximise their internal harmony, and the happiness of the people who use them. According to Chinese feng shui, water in the garden attracts and refreshes energy and water features are more popular than ever. |
| Design Task | Design a water feature to enhance your living environment. |
| Teacher Prompts | Discussion could include internal or external environments, use of natural resources such as bamboo or recycled materials. Source: http://www.bhg.com.au/gardening.nsf/Content/BHG_April01_Article_WaterFeatures http://www.hgtv.com/hgtv/gl_design_water_features/0,1784,HGT_V_3575,00.html |

Interior Design

Office Space

| | |
|------------------|---|
| Design Statement | Office ergonomics is the science of fitting the workspace environment to the worker. Anyone who sits at a computer for long periods of time must take a pro-active approach with office ergonomics to prevent the physical problems they could face as a result. Workplace ergonomics increases worker productivity by minimizing fatigue and strain, eliminating wasted motion, and improving comfort. Ergonomic office solutions include adjusting and controlling the physical environment, the design of the desk and chair, the placement of the screen and keyboard, the position of the document, and the placement and intensity of office lighting. For these reasons, an office space must be both flexible and adaptable. |
| Design Task | Design an office / workstation area that utilises available space and demonstrates the principles of ergonomic design. |
| Teacher Prompts | http://www.ergonomic-office-computer-furniture.com/ |

Ultimate Room

| | |
|------------------|--|
| Design Statement | "Interior design concerns itself with more than just the visual or ambient enhancement of an interior space, it seeks to optimise and harmonise the uses to which the built environment will be put." The physical environment of the room including lighting, wall and floor surfaces, space requirements and colour all impact on the amount of use the room receives. |
| Design Task | Design a plan for your ultimate bedroom, creating zones for all your needs |
| Teacher Prompts | Source: http://www.interiors.org/what_is_it.asp Include spaces for storage. |

Restaurant Style

| | |
|------------------|--|
| Design Statement | The layout of a space is not the only consideration designers need to make when developing a successful space. The surfaces are vital in creating spaces that are inviting. Texture, colour, material and acoustics are all characteristics of surfaces. These can all make a significant impact on whether someone wants to be in the space. This is important when designing spaces such as restaurants where creating an inviting atmosphere is so important. |
| Design Task | Using an existing floor-plan of a restaurant, design its atmosphere by specifying all surfaces. Consider texture, colour, and acoustics of your choice. Some areas will need special considerations such as water resistance and fire retardance. Make a sample board of your materials. |
| Teacher Prompts | Ideas from existing restaurants will be helpful. Analyse the choices made. |

Landscape Design

Rooftop Play

| | |
|------------------|--|
| Design Statement | Busy lifestyles make us value the time spent together as a family and so the "No Mow Zone" (The Sun Herald – 14 th March 2004) is growing as families forsake backyards for apartment living. |
| Design Task | Design a communal rooftop recreation space to be enjoyed by the families in an apartment block. |
| Teacher Prompts | Could include ideas such as putt putt golf courses, bike tracks, golf driving range, lap pool. Sources: http://www.playlsi.com/pda/pda_300.shtml |

Skate Park

| | |
|------------------|--|
| Design Statement | Providing a place where kids can “hang out” with the knowledge that they are safe and still having fun is the concern of most families. Creating a balance between the needs of the community and protection of the environment often creates a problem. |
| Design Task | Design a skate park to blend into the natural surroundings of your local area. Create a plan to submit to local council for approval. |
| Teacher Prompts | Students could look into safety features, physical properties and environment features – they could include rest areas, skateboard racks, safety fencing, security lighting. |

Golf Game

| | |
|------------------|---|
| Design Statement | Golf courses require careful design. Many undergo revision even years after they are developed. Using all the space effectively whilst separating fairways is important. |
| Design Task | Design a golf course to be made on a given land area. Make particular consideration of flow between holes, water, drainage, lengths of holes, tree types, and any hazards. |
| Teacher Prompts | Students could write their own design brief outlining all the design considerations before they attempt any design work. A visit to a golf course would be helpful. The topography of a vacant land area would be helpful to provide to the students. |

Garden Themes

| | |
|------------------|---|
| Design Statement | <p>Good landscape design can significantly improve the building's appearance by adding warmth, liveability and personality. It can also relate a building to its site and environment and give it the desired degree of dominance. A well-designed landscape is a pleasure to the family, enhances a community and adds to the property's resale value.</p> <p>Landscape design involves much more than placing trees, shrubs and other plants on the property. It is an art, which deals with conscious arrangement or organisation of outdoor space for human satisfaction and enjoyment.</p> |
| Design Task | Design a themed landscape for an identified area. |
| Teacher Prompts | Some of the major goals include: Organising and developing the site for maximum use and pleasure. Creating a visual relationship between the house and the site. Reducing landscape maintenance to a practical level. |

Source: <http://aggie-horticulture.tamu.edu/extension/homelandscapes/home.html>

Theme Parks

| | |
|------------------|--|
| Design Statement | Theme parks draw tourists and local communities together. They provide hours of fun and enjoyment for all ages. In large cities the challenges is to incorporate recreation facilities into the built environment. |
| Design Task | Design a water recreational theme park that reflects an orientation to nature and will result in a well used space. |
| Teacher Prompts | Idea; wade pools, wave pools, slides, tube rides, river rides and more. |

Mosaic Stepping Stone

| | |
|------------------|---|
| Design Statement | In today's stressful society we are all looking for ways to improve the quality of our lives. Stepping into a garden is a wonderful way to relax and restore inner peace. Art is also useful in reducing stress because it draws us outside of ourselves. Bringing the two together, placing art in the garden, can be a magical combination. It adds sensory stimulation, visually through colour and form or through texture. Art can also provide movement and sound by incorporating the natural elements. Every garden depends on natural elements such as rocks, water, pebbles and plants. To reveal the beauty of these elements we need to isolate them or display them effectively. A pathway of stepping-stones gives interest and intrigue to any garden. |
| Design Task | Design a collection of mosaic stepping stones or a piece of outdoor art embracing these natural elements. |
| Teacher Prompts | http://www.hgtv.com/hgtv/gl_design_patios_decks/article/0,1785,HGTV_3568_2655494,00.html http://www.burkesbackyard.com.au/2001/archives/2001_archives/home_among_the_gum_trees/making_and_mending/mosaic_stepping_stones http://www.houseandhomeonline.com/garden12991.html |



Structural Design

Tree House

| | |
|------------------|---|
| Design Situation | The clearing of lands for construction can lead to the loss of wildlife habitats, erosion and sedimentation associated with the use of heavy machinery, loss of native plant life, and contamination of soils and surface and groundwater. However, proper design and planning can help reduce these impacts. Build infrastructure associated with coastal dependent land uses has impacts on coastal landscape, environmental and sustainability values. The objective is to ensure that any future built form is sensitively located, ecologically sound so that loss of habitat, loss of amenity and potential erosion is minimised. |
| Design Task | Design and produce plans for a house that hovers above the terrain and minimises intrusion on the site. |
| Teacher Prompts | http://www.bluescopesteel.com.au |

Bridge Building

| | |
|------------------|---|
| Design Statement | Bridges are a very common structure that we use every day. Unlike buildings, bridges tend show the structural elements. We are given some idea of how they work, whether a member is in tension or compression. Common amongst steel constructions is the warren truss. |
| Design Task | Design and make a model of a bridge. Consider the warren truss as a basis for your design. Evaluate the design by loading the bridge with weights until it fails. |
| Teacher Prompts | Construction can be from paddle-pop sticks and hot glue. Specify amounts of materials, span length. This project could be suited to group work. |

Board Walk

| | |
|------------------|---|
| Design Statement | The “Distinctly Australian” campaign is committed to deepening our natural appreciation of the places, stories, events and people that have made us who we are as a nation. Taking in the sites and soaking up the atmosphere provides new opportunities for engaging with the past and thinking about its layered histories. |
| Design Task | Design a series of storyboards that express what makes you Australian – to be made into part of the boardwalk seawall at the Opera House OR it could be incorporated into your schools entry way. |
| Teacher Prompts | Discussion could include the use of Perspex to view the harbour or school grounds through or timber and metal and could incorporate panels from each of the student's designs Source: http://www.builtenvironment2004.org.au/ybe/media_centre/DA%20Program/ |



PRODUCTS

Accessories Design

Recycled Fashion

| | |
|------------------|--|
| Design Statement | "The fashion and textile industry has a poor record of environmental performance, but there are innovations taking place that pay heed to the protection of the planet. The Maud N Lil fashion label uses organic cotton and recycled plastic PET bottles to make clothing and bedding." |
| Design Task | Design, make and evaluate a textile item from recycled clothing. |
| Teacher Prompts | Students could use recycled clothing – jeans, shirts, shorts or recycled materials from their local reverse garbage depot to make lampshades, cushions, doona covers, wall hangings. Sources: http://www.abc.net.au/arts/design/fashion_archive.htm |

Heirlooms

| | |
|------------------|---|
| Design Statement | Heirlooms create a living history of the past. Often photographs do the same but can be damaged or lost over the years along with the memories. One method of preserving the images is creating an heirloom to hand down to future generations. With the availability of digital cameras and transfer technology the task is now within everyone's reach. |
| Design Task | Design, make and evaluate an heirloom textiles item using photo transfer technology. |

Desktop Lamp

| | |
|------------------|--|
| Design Statement | Lighting design provides many creative opportunities to change our environment. Personal lamps can be expressive and sculptural items providing focal points in a room. Emitting a glow rather than direct light is all that is required. Designers are always looking for materials that are translucent, easily manipulated, have structure and aren't affected by heat. |
| Design Task | Design, make and evaluate a desk-top lamp. |
| Teacher Prompts | Polypropylene is a suitable material which is also cheap. Polycarbonate can provide extra structure if required. The design style, minimalism, provides a strong starting point for concepts and can be studied as design related content. |



Sunglasses Case

| | |
|------------------|--|
| Design Statement | Even accessories have accessories. Sunglasses are often a very branded item, they are also an indicator of personal style. They say something about the wearer. Companies incorporate their own logos not only on but also into the product. The case manufacturers make for sunglasses are another opportunity to expose the brand. |
| Design Task | Design, make and evaluate a case for a range of sunglasses. Justify the choice of material, style, colour and graphics incorporated. The case needs to suit the product in shape, style, colour and graphics. |
| Teacher Prompts | Cases can be soft, stitched from a variety of materials or hard incorporating some opening system. Materials such as foamed neoprene, plastazote, polypropylene, polycarbonate can be used. Teachers should check guidelines for use of these materials: Chemical Safety in Schools Vol 2. |

Bags

| | |
|------------------|---|
| Design Statement | The ways in which people have carried themselves and their belongings throughout history have reflected the eras in which they lived. Twentieth century technology has opened up a treasury of textures and materials from space age synthetic to hand-woven straws. From the construction of the fabric to the design or finish on the bag, the engineering brain focus' on the stability of the shape and quality while the artist mindset is on the possibilities of eclectic designs or finish. Beaded bags are just one example of a fashion trend that's just clamouring for artistic expression. |
| Design Task | Design, make and evaluate a bag to suit your needs as a teenager. |
| Teacher Prompts | This could include anything from a beaded purse to a sports/utility bag, surfboard bag or backpack. http://jas.familyfun.go.com/crafts?page=CraftDisplay&craftid=10027 http://craftandfabriclinks.com/halloweenbag/trickbag.html |

Agricultural Product Design

Moisture Metre

| | |
|------------------|---|
| Design Statement | Water management is a vital issue for all agriculturalists whether they run stock or grow crops. Whilst recording rainfall is important, measurements of moisture retention in the soil are even more critical. |
| Design Task | Design, make and evaluate a method of quantifying soil moisture content. |
| Teacher Prompts | This could be suited to an electronic solution where a probe is inserted into the soil. Information from several devices could be used to build up a moisture profile of a field. |

Fashion Design

Sun Protection

| | |
|------------------|---|
| Design Statement | Skin cancer has reached epidemic proportions in Australia. Currently one in two Australians will develop the disease at some stage during their lives. One of the best barriers between your skin and the sun is clothing. |
| Design Task | Design, make and evaluate a piece of clothing that helps to protect you from the sun's damaging rays. |
| Teacher Prompts | Shorts, t-shirts and hats are suitable items that allow focus to be on protective impact of the fabric selection while design can be very individual. Source: http://www.sunsmart.com.au/ |

Fabric Decoration

| | |
|------------------|--|
| Design Statement | Dyeing and painting are important fabric decoration techniques for Aboriginal and Torres Strait Islander textile designers. The distinctive colours and designs used demonstrate their knowledge and understanding of their cultural heritage. |
| Design Task | Design, make and evaluate an article of apparel that reflects the significance of cultural heritage. |
| Teacher Prompts | Fabric painting, printing, dyeing, tie dyeing, e.g. wraps, shirts, t shirts, skirts, shorts. |

Food Design

GI Biscuits

| | |
|------------------|--|
| Design Statement | The Glycaemic Index (GI) of foods has become important consumer information. Biscuits are generally classed as a high GI food, but through careful consideration of ingredients a low GI version could be produced. The shape of the biscuit could be designed to identify the food as low GI. |
| Design Task | Design, make and evaluate a suitable shape and recipe for a biscuit which is readily identifiable as low GI. The shape used should be able to be made using mass-production techniques. Use the recipe to make the biscuit. |
| Teacher Prompts | The recipe and the shape of the biscuit can both be considered part of the design of the product. |

Pasta Making

| | |
|------------------|--|
| Design Statement | Pasta can be made into just about any shape although some are easier to manufacture than other. The extrusion process is used to make macaroni and penne. The shape of the pasta depends on the shape of the die through which it is pressed. This means that any cross-sectional shape can be made as long as it is not too detailed, or too large. |
| Design Task | Design, make and evaluate a die shape suited to pasta manufacture. |
| Teacher Prompts | Models of the die can be made from materials such as fimo before attempting to make the pasta. |

Step by Step Cookbook

| | |
|------------------|--|
| Design Statement | Education on nutritional issues starts early with the introduction of “Healthy Harold” at primary schools. Children are now more active in choosing and preparing their own meals. |
| Design Task | Design, make and evaluate a step by step cookbook for children using the digital camera and compatible software. |
| Teacher Prompts | Food display, step-by-step photography, nutritional analysis programs such as <i>Food works</i> . |

Industrial Design

Puzzles

| | |
|------------------|--|
| Design Statement | Puzzles in the shape of cubes which require the user to shake elements into an obvious configuration are often enjoyable challenges for many age groups. The design opportunities are endless, but it is important to note that the best puzzles are often the simplest and what the user is to achieve is always obvious. |
| Design Task | Design, make and evaluate an original and innovative cube puzzle. |
| Teacher Prompts | The main material used is normally acrylic, but the internal pieces can be almost any material. |

Computer Mouse

| | |
|------------------|--|
| Design Statement | Ergonomic considerations are very important when designing objects which are held or manipulated by the hand. The computer mouse presents designers with many opportunities to explore shape, texture and colour whilst requiring comfort and functional positioning of the buttons. Designing a computer mouse shape is a styling exercise where ergonomics and product detailing play important parts. |
| Design Task | Design, make and evaluate a model of a computer mouse with consideration of ergonomic principles. Use suitable materials and processes. |
| Teacher Prompts | The design style "Biomorphism" provides an excellent starting point for generating ideas. Modelling grade polystyrene foam and the vacuum forming process is suited to model making for this project. |

Roll out the Lollies

| | |
|------------------|--|
| Design Statement | Children have always had a fascination for bubblegum machines. The competition to see what colour or flavour you will get still brings fun and enjoyment. First of all the visual stimulation draws you in but, the most intriguing part of the process is working out how the engineering system that delivers just one sweet to you works. |
| Design Task | Design, make and evaluate a sweet dispenser. |
| Teacher Prompts | Use Perspex sides. Sample plans can be found on the Better Homes and Gardens projects page. |

Robotic Pet

| | |
|------------------|--|
| Design Statement | The Sony “Aibo” robotic dog is the first of its kind commercially available. It raises the question of the nature of domestic robots of the future. Our fascination is with the seemingly natural set of behaviour exhibited by something so obviously manufactured. This can be seen even with very simple behaviours such as responding to light. This kind of simple behaviour is well suited to a toy robot. |
| Design Task | Make a simple light seeking robot. Design and make a casing for it so that it could be suitable as a toy. Evaluate your result. |
| Teacher Prompts | The light seeking robot can be made from cheap components to designs that are readily available. The casing design can be vacuum formed or made from a variety of lightweight materials. Or Mindstorm Lego can be used. |

Sushi Tray

| | |
|------------------|---|
| Design Statement | As Australian food becomes increasingly cosmopolitan the authentic presentation of the food is also becoming more important. The sushi tray is more often seen in restaurants and homeware shops. Although they are traditionally ceramic other materials would be suitable such as plastic and wood. |
| Design Task | Design, make and evaluate a sushi tray using materials other than ceramics. |
| Teacher Prompts | Sushi trays do not need any depth so manufacture could be laminating wood and with acrylic inserts. |

Get Organised

| | |
|------------------|---|
| Design Statement | Designers are often after novel ways to use common materials. The use of unexpected materials often shows that the designer is prepared to challenge standard ideas and it can also bring more enjoyment to the user. This has been the approach of the Pentagon design group in the 1980s, Droog Design and Tom Dixon more recently. Using materials in unexpected ways has been referred to as ‘Informalism’. This also had connotations of reusing and recycling materials as well as using industrial grade materials in domestic settings. The humble folder (ring binder or clipboard) often used for school work or around the home or office is an excellent accessory ready to be redesigned using different materials. Sheet aluminium is one such material because it is so versatile. It is strong and light, offers a range of finishes and can be joined easily using rivets. |
| Design Task | Design, make and evaluate a personalised clipboard using a non traditional material such as aluminium or acrylic. |
| Teacher Prompts | Sheet aluminium and acrylic is suited to this project because they are so versatile. They are strong and light, offer a range of finishes and can be joined easily. Safe heat forming of acrylic also offers a range of manufacturing alternatives. |



Jewellery Design

Elements of Nature

| | |
|------------------|---|
| Design Statement | The beauty of the environment, especially the water, inspires jewellery designers around the world. Native flora lends itself to the imagination and creativity of those around it. |
| Design Task | Design, make and evaluate a collection of jewellery inspired by the elements of nature. |
| Teacher Prompts | The formation of waves, rocks, the structure of flowers, leaves. |

Shells

| | |
|------------------|---|
| Design Statement | Shell stringing is a tradition handed down through the Palawa women of Tasmania from mother to daughter and its link to the past stretches back many generations. People now realise how important it is to preserve history and keep tradition alive. |
| Design Task | Design, make and evaluate a piece of jewellery based on a tradition in your family or a cultural theme. |
| Teacher Prompts | This could be shell necklaces, earrings, silver jewellery; themes could be the Australian bush, Indigenous Australians, the Incas, Japanese culture, African Heritage. http://www.abc.net.au/gnt/history/Transcripts/s961462.htm |

Art Deco Ring

| | |
|------------------|--|
| Design Statement | The Art Deco period stimulated design motifs that were adopted across the arts from architectural to fashion. The layering of simple shapes also makes the style particularly helpful in jewellery design. |
| Design Task | Design, make and evaluate a silver ring for yourself using Art Deco motifs. |
| Teacher Prompts | This project can be made using the lost wax casting method. |



Information and Communication

Communication Systems Design

Video Clip

| | |
|------------------|---|
| Design Statement | Video clips for songs have a long history back to the Beatles. Early clips were simply shots of the performer with little visual interpretation of the music. Today we expect greater engagement with the song through powerful visuals and at times some storyline. The greatest technical challenge of the video clip is perhaps editing. |
| Design Task | Produce a video clip to your favourite song. |
| Teacher Prompts | Generate ideas through story-boarding. Analyse a range of existing video clips to understand what makes them successful. Shot lengths, relationship to music, lighting and staging are important elements. |

Advertising

| | |
|------------------|---|
| Design Statement | Video is a powerful medium to present ideas or to advertise events. It also has the capacity to become boring if the content is not presented in a suitable way. Shot lengths, music, lighting, editing and staging are important elements. |
| Design Task | Design and produce a one minute video advertisement for an upcoming school event to be shown at a school assembly. |
| Teacher Prompts | Charity event, sporting event, presentation night. |

Virtual Tour

| | |
|------------------|---|
| Design Statement | Schools are now offering a variety of courses to meet individual student interests and needs. Specialisations like languages, sports, technology, agriculture and performing arts are now major drawing cards when it comes to deciding on a school. Parents are now selecting schools on the basis of what they have to offer. |
| Design Task | Design a virtual tour of your school showcasing positive images to be part of the school's web site. |
| Teacher Prompts | Capture images from open days, sporting events, national (maths/science) competitions, school grounds, student faces. |



Animal Signs

| | |
|------------------|---|
| Design Statement | Signage should be designed for the people who need to use it. This may mean special consideration for children or non-English speakers. People rely on good signage in places where it is easy to become lost. Size, location, colour, graphic and the material the sign is made from should be considered. |
| Design Task | Design signage for a zoo. Specify size, location, and material the signs are to be made from. Design one sign to completion as though you were preparing for a presentation to the management of the zoo. |
| Teacher Prompts | Icons and pictograms should be designed for use on a sign. Often more than one kind of information will be needed on one sign. Analyse existing successful signage. |

Information Systems Design

Workshop manager

| | |
|------------------|---|
| Design Situation | Databases are powerful tools to manipulate large quantities of data. They become useful when searching for specific information. |
| Design Task | Design a data and query form for all the consumables used in the workshop. The database is to be used by teachers when they are buying more stock. Name of item, description, picture, suppliers, cost, packet size will be necessary fields. |

Nutrition Information

| | |
|------------------|--|
| Design Situation | Nutritional information provided on packets of snack foods can be confusing especially when comparing between a number of products. |
| Design Task | Design and produce a database to store the nutritional information of a range of your favourite snack foods. Design a query form that allows you to make comparisons of products according to nutritional information. |

Information Kiosk

| | |
|------------------|--|
| Design Statement | A typical information kiosk features a rich multimedia interface supported by animated graphics, high quality images and high performance operation. Every public or private institution with large premises and large amounts of data in various formats (e.g., graphics, text, audio, video, panoramic views, etc.) can use it to provide visitors, employees, students, or tourists with comprehensive access to all the services and information available at the site. The range of information that can be displayed is limited only by the kiosk developer's imagination! |
| Design Task | Design and develop an information kiosk system for the animals at the zoo using <i>Powerpoint</i> .. |
| Teacher Prompts | http://www.haifa.il.ibm.com/projects/software/jaki/ |

Promotional Design

Tourist Leaflet

| | |
|------------------|---|
| Design Statement | Tourists often rely on leaflets in hotel foyers when deciding on what they will see and do. |
| Design Task | Design, make and evaluate a leaflet advertising a local attraction. The format is to be a tri-folded A4 size. |
| Teacher Prompts | An analysis of existing leaflets will be beneficial. |

Label It

| | |
|------------------|---|
| Design Statement | A product's packaging and label has a significant impact on the consumer's decision to buy which is normally very quick. This is especially so for foods and drinks. There are an increasing number of fruit drinks to choose from. There is trend value as well as a health value attached with the product. |
| Design Task | Design and make a label to be attached to a plastic bottle for a fruit drink. Your label must appeal to what the consumer finds valuable about the product. Consider overall graphic, text, colour and layout of information. |
| Teacher Prompts | An analysis of existing labels will be beneficial. |

Your Restaurant Rules

| | |
|------------------|---|
| Design Statement | Your restaurant does rule, but for it to compete in the ever growing hospitality market, you will need to have a competitive multimedia edge over other establishments. |
| Design Task | Design and produce relevant materials required for successful running of your restaurant. |
| Teacher Prompts | Promotional material, menus, business cards, advertising campaigns, letterheads, order books, signage. |

CD Cover

| | |
|------------------|---|
| Design Statement | A promotional shot for an artist can be worth its weight in gold. If a band is just beginning its rise to stardom, various magazines and newspapers will wish to run pieces on them to appear in touch. Of course it is expensive to commission a photographer for a photo shoot, especially if only one shot will be required. This is where promotional shots come in. Digital imagery has enabled the little known artist to access promotional media at a fraction of the cost. |
| Design Task | Design and make a CD cover promoting a rising star with a distinct cultural focus. |

Software Design

Web site

| | |
|------------------|---|
| Design Statement | Web design begins with content and format. Deciding how information will be delivered, the navigation system and menu tree are necessary before any code is written. |
| Design Task | Design a web site explaining various aspects of the different cultures presented in your class. Write text, take photos and collate all information that can be lined to a menu tree. |

Robotics

| | |
|------------------|--|
| Design Statement | Robots are often used in industry to perform tasks that are dirty, dangerous or dull. Many industrial robots incorporate a programmable arm that performs set tasks. |
| Design Task | Design a program to instruct a robotic arm to perform a range of tasks. |
| Teacher Prompts | Lego Technics |



Digital Media Design

“What not to wear”

| | |
|------------------|---|
| Design Statement | “Fashion is always changing, slightly elusive and extremely seductive. It has the power to transform an image and make a social statement.” Many of us today are confused with changing fashion and send completely the wrong message. Reality TV shows are bringing a lot of fashion disasters to light and setting people on the right track to successful fashion styling. |
| Design Task | Design and produce a video highlighting changing fashion trends and the mistakes people make following them. |

Living Books

| | |
|------------------|---|
| Design Statement | Multimedia presentations have the added benefit of user interaction. A well designed presentation will allow the user to choose where to go and keep their interest throughout. |
| Design Task | Design and generate an interactive multimedia presentation on the book you are currently studying in English. |

Movie Trailer

| | |
|------------------|---|
| Design Statement | Movie trailers give us a brief taste of what is to come without giving away the storyline. They draw us in leaving us wanting more. |
| Design Task | Create a trailer for your favourite movie. |
| Teacher Prompts | Video editing, scene layout, costume design and lighting could all be included – good project for group work. |

