



Study Experiences Group Leader's Tool Kit

Disneyland Resort Paris 2009

DESIGN AND TECHNOLOGY

Dear Group Leader

This Study Experience Group Leader's Tool Kit has been designed to help you plan your visit to Disneyland Resort Paris.

We have also produced a Student Workbook which is available for you to photocopy and distribute to your students before travelling. The Workbook contains case study titles and main bullets; space for note taking; six assignments to complete in the resort; some useful French phrases and a personal planner.

As well as a printed copy which will be mailed to you, your Group Leader's Tool Kit and Student Workbook are also available in an easy to print format, free of charge, from www.studyexperiences.co.uk/edgds.htm. In order to access the site a password will be issued to the group leader at the time of booking and we recommend that you make this available to all members of your team. Both documents are in A4 format; however the Student Workbook can be easily printed as A5 to make it more convenient for students to carry.

Have a really good time at Disneyland Resort Paris and I hope that you will find out lots of information to help your students with their studies.

Lynda Warren
Director of Education

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Top Ten Tips

Study Experiences are professionally managed using the joint resources of group tour operator Newmarket Promotions Ltd, and education producers EBC Ltd.

We hope that the following Top Ten Tips will be of help to you. Study Experiences representatives will, of course, be available to assist you throughout your stay if you need any help or advice.

1. Students should be aware that they will be joining other schools and colleges for their Study Experience, with a total audience of between 300 to 600.
2. Before you travel, we suggest that you complete and photocopy a Student Workbook for each of the students attending the Study Experience. This will help with dates and times, contact information and note taking. We also recommend that you advise all students to bring writing equipment. You may also wish to photocopy various sections of this Toolkit for further student research.
3. Encourage your students to take advantage of the opportunity to ask our Disneyland Resort Paris guests subject related questions by either using the form in this Toolkit before travelling, or submitting a written question in the question box available after sessions one and two.
4. Check that you know the emergency exits at your hotel and the session venue.
5. Ensure students (and teachers) look after their Park Passes – replacements cannot be issued.
6. Check the time it takes to get from your hotel, or other parts of the resort, to the session venue – late comers may be asked to wait for a suitable time during the session to be seated. We suggest you arrive at least 10 minutes prior to the advertised start time.
7. Ensure students turn off mobile phones and do not use cameras or laser pens during the session. Copyright issues prevent us from allowing you to video the sessions
8. You will be visiting the resort during winter, so you may wish to advise your group to bring warm clothing, sensible footwear and wet weather gear.
9. We would suggest that you take one of the Park Guides available near the entrance to the parks or in the hotel and arrange an emergency meeting point with your group.
10. In an emergency:
(Report to either the Study Experiences Help Desk at the Hotel Cheyenne, or the Hotel reception, or a Disney Cast Member)
(Telephone Study Experiences London 24-hour emergency line which is manned by our duty managers - 020 8335 3003 only to be used by Group Leaders and not for general distribution)

Your Programme

During your Study Experience your group will:

Attend three sessions given by one of our resident professional facilitators who will use Disneyland Resort Paris to bring to life your particular area of study. Video and live guests will give the experience an added dimension. There will also be the opportunity to have general subject-related written questions answered during the last session. Please note that our facilitators are not teachers but full time communicators.

Spend time in the resort exploring and enjoying the many attractions, rides, shops and restaurants.

You may choose to begin a number of useful **assignments** designed to stimulate time spent at the resort and ally the experience to course work.

Preparatory Work

Students in the early stages of a course may not have covered some of the specification areas contained in the sessions. It would help them gain the most from the Study Experience if the following general areas were reviewed before your visit to Disneyland Resort Paris:

- Case Study 1: Roller coaster design and materials
- Case Study 2: Computer aided design
- Case Study 3: Food and beverage services
- Case Study 4: Primary and secondary food packaging
- Case Study 5: Use of textiles for costume design
- Case Study 6: Design for purpose

Follow Up Work

These suggestions for post-visit follow up work are included so that students have the opportunity to build upon what they have learned during the Study Experience.

Roller Coaster Design Evaluate the role of the ride designer in Disneyland Resort Paris. Consider the techniques and skills needed to manufacture the structures you have seen in the resort. What skills do you think are required to become a roller coaster designer?

What considerations should be applied when choosing materials? For example, published safety standards for the construction of attractions.

CAD and new attractions Use CAD to draw up a design for a new attraction for the resort. From what you hear in the study sessions, consider safety and appropriate use of materials, manufacturers, maintenance mechanisms, the science of motion and energy and the all-important ergonomics.

Costume design Whilst you are in the resort, make detailed drawings of some of the costumes in one of the parades. On your return to the UK design an additional male and female costume that would fit in with the parade – choose your characters carefully and remember your costume has to be out in all weathers.

Certificate of Attendance

Following the last session, each group leader will receive a Certificate of Attendance for every student who attends for their portfolio or National Record of Achievement.

Teacher Feedback

We do appreciate teacher feedback and would ask you to find time to complete the evaluation sheet you will receive on your return to the UK.

If you would like to talk to our educational producer during your stay at the resort please ask a member of Study Experiences' staff to introduce you or email studyexperiences@ebccommunications.co.uk.

We also appreciate any suggestions for content and future events at this, or any of our other, destinations.

Assignments

Study Experiences has developed six assignments directly related to the content of the Study Experience sessions at Disneyland Resort Paris. Some of the assignments can be answered by listening to the speakers during the study sessions; others focus on information already learned but will be tied into their application within the resort.

Details of the assignments are given in the Student Workbook. If you would like to submit an assignment for use in 2010, please email the address above.

Session Content

During each session, students will be led through two or more case studies showing how the work at Disneyland Resort Paris is directly relevant to current specification topics and how their efforts in the classroom are put into practice in the outside world. Each session includes specially filmed backstage video footage and, subject to work and personal commitments, we will also be joined by a senior Disney Cast Member to answer questions directly related to your subject. Should a particular guest be unable to attend we will make every effort to supply a replacement of equal calibre.

If you or your students would like our facilitator to ask one of our guests a specific subject related question during the guest interview please email studyexperiences@ebccommunications.co.uk.

Session One: The use of design and technology in theme parks

This session begins with a brief overview of the Walt Disney Company, which is then followed by two case studies:

Case Study One: Roller Coasters

- An introduction to Disneyland Resort Paris
- Materials and components
- Systems and control technology
- Construction and surface finishes
- Aesthetics, ergonomics and safety

Case Study Two: Moteurs Action Stunt Show Spectacular

- Research - choosing a setting
- Technical skills
- Fire effects
- Safety

Our guest for this session will be Senior Ride Engineer Mike Kent. Mike will give a personal insight into the importance of design and technology when designing roller coasters will also answer a selection of questions on design and technology related subjects posed by our Study Experiences facilitator. Mike began his career in aerospace design and has been with the resort since its conception.

This session was developed with video support from the following Disneyland Resort Paris Cast Members:

- Archive footage featuring Walt Disney
- Mike Kent, Senior Ride Engineer
- Luc Mayrand, Designer of Space Mountain
- Brian Sholz, Designer Moteurs Action Stunt Show Spectacular
- Katy Harris, Show Director

Session Two: Catering at Disneyland Resort Paris

Case Study One: Food and Beverage Services

- Background research for restaurant and menu design
- Pricing
- Hazard Analysis and Critical Control Point (HACCP)
- Food preparation and types of services
- Cook-chill
- Sous-vide
- Catering for mass markets

Case Study Two: Food packaging

- USP's
- Primary and secondary food packaging
- Use of plastic, paper, board, metal and glass
- Computer aided design – working with Nestle
- Quality standards

Our guest will be Eric Fontaine, Director of Food Support. Eric will answer questions concerning the challenges of feeding 60,000 guests a day in high season, sourcing of food products and working with local, regional and international suppliers.

This session was developed with video support from Planet Hollywood and Disneyland Paris Cast Members:

- Archive footage featuring Disney Imagineers
- Luke Lehoop, General Manager, Planet Hollywood
- Conference chefs at the Newport Bay Hotel
- Allesandra Sorotos, Food Packaging Designer
- Julia Gregory, Graphic Designer

Session Three: Costume and parade float design; graphic design for attractions

Case Study One: Costumes and floats for Parades

- Choice of materials
- Working properties of fabrics
- Working with electrics
- Industrial manufacturing
- From blue sky to going live - design and realisation
- Computer aided design
- Basic construction techniques
- Construction materials

Case Study Two: Graphic design for attractions

- Concept design
- Sense of scale
- Instructions for fabricators and engineers
- Character interpretation
- Branding

Our final guest will be costumier Brenda Sabier. Brenda has been involved in textiles all her working life, in theatre, television, haute couture and now the exciting costumes used in the Disneyland Resort Paris parks. Brenda will expand on some of the issues facing her every day during her work in the busy costuming department, which can be viewed from the Studio Tram Tour.

This session was developed with video support from the following Disneyland Resort Paris Cast Members:

- Archive footage featuring Imagineer Chas McEwen and Walt Disney
- Sue Lecash, Head of Creative Costuming
- Brenda Sabier, Senior Costumier
- Ben Rudd, Technical Co-ordinator
- Kat De Blois, Artistic Director

This session will close with answers to a selection of interesting questions submitted by students and teachers prior to and during their stay at Disneyland Resort Paris. Students and teachers can either email us prior to travelling at studyexperiences@ebccommunications.co.uk with their question or they can submit

a question in writing, together with their name and the school or college they attend, and place it in the Question Box in the foyer following Sessions One and Two. We will answer as many questions as time permits.

Student Question Registration Form

Students and teachers are given the opportunity to forward written questions that will be asked during the guest interview of each session. Please refer to the session description for details of the Disneyland Resort Paris Cast Members who plan to be take part. Schools/colleges should feel free to submit as many questions as they wish. We will answer as many questions as time permits. An additional opportunity to place questions will be available at the resort with a question box available at the end for the first and second sessions.

School/College:

We would like to ask the following questions:

Guest	Question

Please send this Question Registration Form to The Education Producer, Study Experiences, EBC Communications Ltd, The Tramshed, Beehive Yard, Walcot Street, Bath, BA1 5BB or email Studyexperiences@ebccommunications.co.uk before Friday 19 December 2008.

Don't miss the deadline!

Facts and Figures

Here are some facts and figures that relate to Design and Technology in action in the resort that you may wish to photocopy for your students.

Disney's "Once Upon A Dream Parade" – celebrating the Resort's 15th birthday

From concept to the grand inaugural performance, Disney's "Once Upon A Dream Parade" went through 18 months of design, development and construction.

One of the resort's Show Directors, Katy Harris, saw the parade through, along with her passionate team of dream-makers such as Vice President of Entertainment at the resort François Leroux and Artistic Director Kat De Blois. Together an established group of Imagineers spent 3 months of preparation, drafting up parade ideas and the themes it could include, before pitching the concept as the new 15th anniversary parade. In January 2006, Disneyland Resort Paris announced the project to the press and fans alike.

With the green light giving the go ahead, the project moved forward and all aspects of the production were being considered, although the designs for the floats themselves needed to be finalised first. A dedicated group of designers provided a series of drawings, models and 3D frameworks to allow the whole team to work from their vision in 360°.

Taking inspiration from Disney's recent parades overseas, Disney's "Once Upon A Dream Parade" features 8 new floats, each dedicated to at least 2 Disney themes. This allows for even more characters, costumes and creativity.

Successful technical elements from Disney's other productions were added to give this parade an edge over all others. The advanced character puppetry, circus performers and Pinocchio's bungee-bouncing toys are notably inspired by Walt Disney's "Parade of Dreams" over in Disneyland California, while lighting effects, fibre optics and flashing mini-strobes were influenced by Tokyo Disney Resort.

Disney's "Once Upon A Dream Parade" is the first Disney parade worldwide to consciously stimulate all 5 senses. The sight of the floats, the immersive sound of the orchestral soundtrack, and the touch of a character's hand and taste of the sweets given out by selected performers were all designed to create an overwhelming experience. Throughout the parade, scents are pumped out of all 8 floats to match the dream they represent. "Dream of Imagination" has the aroma of sweets, "Dream of Adventure" smells of citrus, "Dream of Romance" has the scent of flower petals, for example.

Using 13km of fabric, 1300 unique outfits were created in the resort's own costume workshop, found in Walt Disney Studios Park. 50km of thread sewed 1200 stars, 700 clouds, 700 buttons and 300 beads into the outfits. 400m of crystal fabric was dyed into 30 specific shades for the parade.

Disney's Once "Upon A Dream Parade" was the first in Disney history to be built solely in France, employing talent from all around Europe to conduct the operation.

The parade utilises 66 speakers and 22 sub woofer bass speakers, all of which are concealed and work in unison speakers positioned around the park to provide a full, crisp sound. A new audio system was created to cater for the parades complex sound. Electronically synchronised by radio, the elevated park speakers play the music appropriate to each float, with transitional tunes in between. This allows for a continuous sound, giving each float its own musical personality.

On 31st March 2007, Disney's "Once Upon A Dream" Parade had its inaugural performance after a week-long set of daytime dress rehearsals. It was a star-studded event with thousands of guests and millions of TV viewers witnessing the occasion when Disneyland Park got a totally new set of daytime parade floats, music and costumes since opening.

The wear and tear of daily life: The rides and attractions at Disneyland Resort Paris have to stand up to being operated every few minutes, every day, 365 days of the year in all kinds of weather, and meet current safety regulations. The design process starts with a sketch, followed by detailed drawings, on a computer. Once a vehicle body design exists in the computer it can be adjusted, refined and even placed on an electronic rendition of the proposed ride track. Full sized drawings are then generated, scale models made and finally a full sized clay model is rendered as the last step before the actual bodies are fabricated and attached.

"In the early days of Disneyland it was incredible that we accomplished all of the things we did, because we were just a little machine shop and a tiny model shop. Of course, everything is bigger and better today, but I've never become blasé because I continue to have the feeling that Walt is looking over my shoulder."
Harper Goff

Colour: Before construction and production of a new project begins, colour boards are created to reflect every aspect of the finished project, whether it is a ride, a costume or even a carpet. The first type is an elevation colour scheme, when the artist paints the intended colour scheme directly onto architectural drawings. The colours may change many times before a scheme is eventually agreed; however the colours for Space Mountain remain faithful to the original elevation colour scheme. The only alteration was the fact that it looked 'too new' and had to have enough rust and wear painted on to make it look used yet still safe to ride.

AutoCad: The designers at the resort use Autodesk products such as AutoCad to produce electronic 2d drawings and electronic 3d models of the component parts of the rides. The 3d models have three uses:

- They can be used for finite element analysis to determine the stress levels in mechanical components
- They can be used by the machine shop to produce components using Computer Aided Manufacturing
- They can be built into a 3d model of the attraction to produce a virtual ride that engineers can literally work and ride around in e-space before the actual construction process takes place. This allows engineers to check how the building, ride and show elements all interact and make the necessary adjustments before committing to steel and concrete.

"Creativity isn't what's going on inside your head, it's what's going on around it."
Bob Bronsden, Principal Engineer, Engineering

Sensing on the rides (usually the position of the ride vehicles on the track) is carried out using proximity or through beam (photoelectric) sensors, the type depending on the speed of the signal required. Through-beam sensors are commonly found on automatic doors. You interrupt the light beam and prevent the door closing if you are standing in the doorway.

Catering: The Clés du Produit are a formalisation of all the culinary production methods practised in the kitchens of Disneyland Resort Paris. The Clés (keys) outline, step by step, the preparation process used in the kitchens: organisation, cooking, assembly, packaging, distribution and actual food preparation. The Food and Beverage Management then validate the steps before they are introduced to kitchen Cast Members. This allows for greater consistency of choice, improved hygiene control and additional assurance with regard to the quality of all meals.

"I find it important to write my thoughts and ideas in my own handwriting as it internalizes the thought process. Then I start to scribble, underline, and doodle around the words. There is something between the brain and the hand that connects the two, getting the brainstorming juices flowing." Don Winton, Vice President, Creative, Walt Disney Imagineering, Florida

Model construction: Once an Imagineering sculptor completes his full size clay sculpture design, the next stage is the development of the final theme park character. A detailed plaster cast is made and from this the character develops. A special blend of molten rubber is poured into the plaster cast and once cured, becomes the character's pliable exterior skin. This skin-like rubber can be made in any colour, depending upon the character. Meanwhile, an aluminium structure is fabricated to serve as the character's 'skeleton'. All of the inner workings and mechanics of the character are then attached to the jointed frame. A hard clear plastic material is then created in the shape of a character, to both shield and contain its mechanical insides, and to serve as a solid foundation to attach the soft rubber skin. Once the inner and outer structure is complete, including eyes, teeth, and contoured skin, it is taken to the figure finishing department for make up, wigs, eyelashes, eyebrows and additional accessories such as hats or glasses. Finally specially designed clothing is custom tailored to provide the character with a costume appropriate to its role in the show before it eventually takes its part in bringing a story to life.

"Understand the problem, do the research, play hard looking for potential options, sleep on it, and let your subconscious do the rest. Great solutions make a wonderful breakfast." Bobby Brooks, Creative Director, Concept Architecture

Control Systems: On rides there are PLCs (Programmable Logic Controllers). There are three typical architectures depending on the ride family (roller coasters, water/dark rides and rotating rides) as follows:

Duplex Controller: this consists of two PLCs running in the same programme. Each controls the other. An external watchdog controls the activity

Simplex controller: this consists of one PLC and a watchdog.

Standard controller: one PLC

The Watchdog is a separate piece of hardware, which detects malfunctions in the software programme(s). The Watchdog must be reset (refreshed) at regular intervals by the software. If the software goes into a loop, or does not complete its programme cycle correctly, then the refresh signal is not sent to the Watchdog in the correct time period. The Watchdog then times-out and stops the ride.

"Ok, how tough can it be? Use fear as a motivator, not as an inhibitor." Neil Engel, Show Designer, Creative Development

Space Mountain contains a catapult (cannon) with two tracks, one above the other. The train rides on the upper track with a launch car under it on the lower track. The launch car is coupled to the train during the launch sequence by a retractable hook. The launch car is powered up and down the catapult by a high-speed winch system. The winch drum is at the base of the catapult and is driven by two coupled motors. The motor system has a speed feedback control loop. The motors are driven by two Variable Speed Drives (VSDs), one VSD per motor. As the motors are coupled, they need to be well balanced for both torque and speed. There is a VSD master and a VSD slave. The slave follows the master unit. A duplex control system is used to control the train movement and a second duplex system is used to control the launch car movement. Finally, a simplex control system is used for the motors. In effect, during the launch, the train is monitored by 5 computers, just like the Space Shuttle.

The main materials used in the Space Mountain Ride system are:

- Seamless steel tubes for the track pipes and support columns
- Steel box sections and plates for the vehicle chassis
- Main axles are machined from one piece of high strength steel
- Wheel tyres are in Vulkolan S, a special polyurethane (plastic) mix
- Bodies are in glass fibre with brass 'Show Elements'
- Seats are in foamed, soft, self-skinning polyurethane (PUR)
- Elements of the suspension system are machined from aircraft grade aluminium for lightness
- Fabric reinforced thermoset composites are used in bearing applications in the axles

When the ride is operated with a loaded train it has effectively more energy than it needs to complete the ride path. Energy reduction devices (trim brakes for example) are used at points in the track to reduce the vehicle energy by gently braking the train and bringing it back to the design energy profile. The removed energy is dissipated as heat. Vehicle braking is carried out under computer control using pre-programmed speed/declaration profiles. Using this technique, the ride experience of the guest is constant, irrespective of the number of guests in a train. Try to spot the trim brake locations in Space Mountain when you ride. How many are there?

"Learn techniques to be successful and have the incentive to invent the new." Tony Baxter, Senior Vice President, Creative Development

Construction teams: A typical construction team includes a construction manager, a planner responsible for programming the various sub contractors, a safety engineer responsible for those safety of those coming onto the worksite, a construction engineer in charge of project follow up, a main foreman and other foreman specialising in electricity, plumbing, heating and ventilation, fire protection and quality who rely on each other on the site. Often the crews have to work around the clock, six days a week, in relatively difficult conditions. The walls of Twilight Zone Tower of Terror were put up in one month in the dead of winter, interruptedly, using a sliding casing system which required working continuously around the clock in order to ensure the even progression of the casing.

Lights, Motors ... Action! Stunt Show Spectacular: Construction of the stunt arena began in February 2003. The design of the giant, outdoor set for "Lights, Motors, Action! Extreme Stunt Show" takes its inspiration from a seaside village marketplace in southern France. The massive and detailed show set was designed and created by Walt Disney Imagineering.

The show features more than 40 vehicles on stage and inside the garage area. The cars are custom-built in Europe and equipped with a 1,300 cc, 150-horsepower motor built inside a custom racing chassis. Show cars weigh just 600 kilograms (approximately 1,322 pounds) and consume one litre of fuel per show. The cars weigh less than half of a production car does. Vehicles are designated by color so the audience will always know which is the "hero" vehicle and which is the "chase" vehicle.

In addition to four forward speeds, the cars are equipped with a custom-designed transmission gearbox that also allows four reverse speeds. This enables the cars to go as fast in reverse gears as they do in forward gears. Design components in the cars include the latest in safety and technology. Among the features: a NASCAR-style fire-suppression system, speed sensors and an on-board computer that assists drivers with maintaining proper speeds for precision stunt jumps.

"Long and short-term thinking both have their place in planning a creative project. Long-term thinking creates the foundation for the future by providing growth expansion. But you need to establish short-term goals and objectives as a strategy to propel the process toward the long-term creative vision." Wing Chao, Executive Vice President, Master Planning Architecture and Design.

Design and Technology Glossary

As students attending Study Experiences are at a variety of levels in their education, you may wish to photocopy and distribute the following glossary.

Roller Coaster Design

Acceleration: Objects that are changing their speed or their direction are said to be accelerating; the rate at which the speed or direction changes is referred to as acceleration. Some amusement park rides (such as roller coasters) are characterized by rapid changes in speed and or direction. These rides have large accelerations. Rides such as the carousel result in small accelerations; the speed and direction of the riders change gradually.

Back stage: Any area usually off limits to guests.

Blue sky: A brainstorming session where ideas and loose concepts are generated.

Centripetal force: Motion along a curve or through a circle is always caused by a centripetal force. This is a force that pushes an object in an inward direction. The moon orbits the earth in a circular motion because a force of gravity pulls on the moon in an inward direction toward the centre of its orbit. In a roller coaster loop, riders are pushed inwards toward the centre of the loop by forces resulting from the car seat (at the loop's bottom) and by gravity (at the loop's top).

Cycle time: The actual time it takes for a ride to despatch, advance through the attraction, unload, advance, load and then dispatch once again.

Dark ride: Small rides composed of a ride vehicle for 2-6 riders, a track that winds through a series of theatre flats and painted sets, separated by "bump" doors, such as Peter Pan's Flight.

Dispatch: A dispatch occurs each time a ride vehicle is launched from the load platform.

Force: A force is a push or a pull acting upon an object. Forces result from interactions between two objects. Most interactions involve contact. If you hit the wall, the wall hits you back. The contact interaction between your hand and the wall results in a mutual push upon both objects. The wall becomes nicked (if hit hard enough) and your hand hurts. Bumper cars experience mutual forces acting between them due to contact during a collision. Some forces can act from a distance without actual contact between the two interacting objects. Gravity is one such force. On a free fall ride, there is a force of gravitational attraction between the Earth and your body even though the Earth and your body are not in contact.

Friction: Friction is a force that resists the motion of an object. Friction results from the close interaction between two surfaces that are sliding across each other. When you slam on your brakes and your car skids to a stop with locked wheels, it is the force of friction that brings it to a stop. Friction resists the car's motion.

G Force: A g is a unit of acceleration equal to the acceleration caused by gravity. Gravity causes free-falling objects on the Earth to change their speeds at rates of about 10 m/s each second. That would be equivalent to a change in speed of 32 ft/s in each consecutive second. If an object is said to experience 3 g's of acceleration, then the object is changing its speed at a rate of about 30 m/s every second.

Kinetic energy: Kinetic energy is the energy possessed by an object because of its motion. All moving objects have kinetic energy. The amount of kinetic energy

depends upon the mass and speed of the object. A roller coaster car has a lot of kinetic energy if it is moving fast and has a lot of mass. In general, the kinetic energy of a roller coaster rider is at a maximum when the rider reaches a minimum height.

Momentum: Momentum relates to the quantity of motion that an object possesses. Any mass that is in motion has momentum. In fact, momentum depends upon mass and velocity, or in other words, the amount of "stuff" that is moving and how fast the "stuff" is moving. A train of roller coaster cars moving at a high speed has a lot of momentum. A tennis ball moving at a high speed has less momentum. And the building you are in, despite its large mass, has no momentum since it is at rest.

On stage: Any area that a theme park guest can see.

Potential energy: Potential energy is the energy possessed by an object because of its height above the ground. The amount of potential energy possessed by an object depends on its mass and its height. A roller coaster car is initially hauled by a motor and chain system to the top of a tall hill, giving it a large quantity of potential energy.

Ride envelope: The area of space within a ride a vehicle must remain within while passing through the show. The ride envelope often includes clearance so that a guest may not hurt himself by reaching out of the vehicle.

Ride vehicle: The vehicle that guests board to experience an attraction.

Speed: Speed is a measurement of how fast an object is moving. Fast-moving objects can cover large distances in a small amount of time. They are said to have a high speed. A roller coaster car moving at 60 miles per hour would be able to cover a distance of 60 miles in one hour if it could maintain this pace.

Theming: Any prop, set or other material used to create a themed environment.

THRC: Theoretical hourly ride capacity. A simple calculation that multiplies the number of riders in each ride vehicle by the number of dispatches per hour.

Velocity: The velocity of an object refers to the speed and direction in which it moves. If you drive north to your work place and your speedometer reads 35 miles per hour, then your velocity is 35 miles per hour in a northward direction. Velocity is speed with a direction and is important in understanding bumper car collisions.

Weightlessness: Amusement park rides often produce sensations of weightlessness. These sensations result when riders no longer feel an external force acting upon their bodies. At the top of the tower of a free-fall ride, a 100-pound rider would feel 100 pounds of force from the seat pushing as an external force upon her body. The rider feels her normal weight. Yet, as she falls from the tower, the seat has fallen out from under her. She no longer feels the external force of the seat and subsequently has a brief sensation of weightlessness. She has not lost any weight, but feels as though she has because of the absence of the seat force. In this context, weightlessness is a sensation and not an actual change in weight.

Computer Aided Design

Databases: Storage of information that will help in the design of the product, such as standard components and measurements.

Solid modelling: The physical properties such as mass and volume are shown.

Surface modelling: The surface finish is added to produce a more realistic 3D image.

Virtual prototype: When the product can be visualised from different angles and in different working situations.

Wire frame modelling: The object is represented by a series of contour lines which create a form of mesh.

Food Technology (Mass catering)

Best Before: A 'Best Before' date is applied to food in which the microbes are either dormant or dead; hence spoilage is normally due to slow chemical changes occurring within the food. Only low risk food, as far as food poisoning is concerned, should have a 'Best Before' date and all other food should have a 'Use By' date. Often 'Best Before' dated food has to be stored under appropriate conditions to last until its 'Best Before' date. e.g. most frozen food needs to be stored at -18°C and dried food should be stored in a cool dry place.

Blanching: Blanching is the immersion of fruit and vegetables in boiling water or steam in order to destroy enzymes which will otherwise cause undesirable chemical changes in the product. Blanching is derived from the French for white, as fruit and vegetables lose colour during the blanching process.

Chilling: Chilling is the process whereby food is cooled to a temperature between 0 and 5°C, then stored at this temperature. Chilling takes high risk food out of the danger zone and protects food from food poisoning and microbial spoilage by slowing microbial growth.

Cook-chill: In Cook-chill, food is prepared, cooked, portioned then chilled to 3°C in a central kitchen. A safer version is to portion the food before cooking. The food can be stored chilled for up to 4 days. The food is taken to a feeder kitchen where it is reheated prior to being eaten. Cook-chill is used in large scale catering operations such as hospital food or school dinners.

Cook-freeze: In Cook-freeze the food is prepared then cooked in a central kitchen, portioned then frozen to -20°C. The food can be stored for up to eight weeks, before it is reheated in a feeder kitchen before being eaten. Cook-freeze produces a higher quality product than Cook-chill and is used by many airlines.

Feeder kitchen: A feeder kitchen is a place where Cook-chill or Cook-freeze food is reheated before it is eaten. The feeder kitchen should be next to the dining area, or in a hospital on the ward, as the food should be eaten within 15 minutes, after being reheated.

Freezing: Freezing is the process where by the water component of the food is changed from the liquid phase to the solid phase (ice) in order to protect the food from microbes. To obtain high quality, the freezing should take place as quickly as possible. In frozen food the microbes are dormant rather than dead.

Heat processing: Heat processing is the application of heat to food in order to kill all or most of the microbes thus making the food safe to eat. Heat processing might also improve the flavour and texture of food. Cooking is a form of heat processing.

Pack integrity: The pack integrity of the food is normally provided by the primary packaging which prevents liquids from leaking out, as well as protecting the food against microbial, chemical and physical contamination.

Preserving food: Preserving food involves indirect methods of protecting food from microbes whilst processing involves direct methods such as heat treatment. Pickling in vinegar, salting and adding sugar are methods used in preserving food.

Vacuum packing: Vacuum packing is a similar process to canning but laminated plastic or nylon pouches are used instead of tin cans. The vacuum packs can be sterilised after they have been heat sealed or the food can be sterilised then aseptically filled into vacuum packs which are then aseptically heat sealed. The pouches are usually sterilised by radiation before being aseptically filled.

Textiles Technology (Costume design)

Acrylic: Filament fibre made from oil, often used as a wool substitute, poor thermal properties and poor for dyeing.

Aesthetic criteria: Relating the look and feel of a textile, matching its style with the end use.

Bonded: Layers of material that are joined using, for example, glues, heat, chemicals or ultrasound.

CAD (computer aided design): Involves the use of computer hardware and design software to model textile ideas in 2D or 3D. The use of CAD modelling is a key part of the industrial design process because it enables manufacturers to test and modify ideas before putting them into production, saving time and reducing costs.

CAM (computer aided manufacture): Involves the use of computer systems to control manufacturing equipment, making it easier and quicker to produce cost-effective, one-off, batch produced or high volume textiles. CAM automates production, repeating processes easily and precisely.

Cotton: From the fibres surrounding the seed head of the plant, producing a fabric that is durable, easy to sew, dyes well, but creases easily. Often combined with polyester to reduce creasing.

Gore-tex: Can be laminated onto any traditional fabric, it is breathable with a microporous membrane and is used for high performance sportswear. It is constructed from 3 layers – nylon outer layer, expanded PTFE layer, plus a knitted membrane laminated to it,

Linen: From the stems of the flax plant, strong and hard wearing but absorbs water and needs ironing. Not very practical.

Lycra: Man-made elastic fibre that makes clothes water and wind-proof and resistant to stain and water.

Microfibres: Polymers mixed to produce microfibres (polyester, nylon, acrylic etc). Can be woven or knitted and almost impermeable to water. They are used in smart and technical fabrics for active wear, all-weather wear and for technical textiles.

Polyamide (nylon): Produced from chemicals derived from oil and coal, smooth, cold fibre that is strong and hardwearing but builds up static. It is crease resistant and can be dyed.

Polyester: Made from ethylene glycol and terephthalic acid, with poor natural elasticity and does not die well.

Polymer: A natural or synthetic compound with large molecules made up of many simple repeating units.

Polypropylene: Synthesised from chemicals, a strong and hard wearing yarn used more for ropes, carpets and furnishings.

Silk: Filament fibre produced from the cocoon of the silk worm. Very fine and reasonably crease resistant. Easily dyed.

Smart fibres: A fabric that alters its properties in response to changes, for example in heat or light.

Teflon: Can be woven, knitted, twisted, braided, knotted and felted. It makes clothes water and wind proof and resistant to stains and water.

Viscose: Made from cellulose obtained from wood pulp, seam may pull so not very practical.

Wool: Absorbs water easily, shrinks badly, accepts dyes, will shed natural creases but hold pressed creases.

Graphic Products (Attraction or product design)

Freehand Sketch: Using pencil and/or fine liner to produce the first illustration.

Isometric: A more realistic effect but it does not include a true face.

Oblique: Simplest form of drawing in 3D, particularly used by the less experienced.

Planometric: Used in kitchen design etc, and used to give a three-dimension design.

Rendering: The application of a graphic media to create a more realistic drawing through depth, light and shade, texture, and material finish.

Schematic maps: maps when unnecessary details have been removed and significant items highlighted.

Single or one-point perspective: Where objects appear to get smaller the further away the point is from the viewer.

Sketch: Same as freehand sketch, but with more detail, usually by drawing a box to which the shape is added.

Two point perspective: When the left and right of the viewer meet at two separate vanishing points.

Resistant Materials (Parade float production)

Ductility: The ability of a material to be worked.

Extrusion moulding: Forcing a molten thermoplastic through a die and rapidly cooling the shape as it emerges.

Fibreglass moulding: The moulding of glass reinforced polyester forming an article that is light, hard wearing and has excellent resistance to corrosion.

Hardness: How easily a material is scratched or indented.

Hardwoods: Timber from a tree that carries their seeds in fruit. Nearly always deciduous and slow growing producing a close-grained, strong and tough, timber.

Injection moulding: Injecting molten thermoplastic into a mould under great pressure.

Softwood: Timber from trees that are cone bearing, they do not lose their leaves in winter. They are fast growing and the timber is more open grained, resulting in a weaker timber that can split easily.

Stiffness: The ability to resist bending.

Strength: The ability to withstand an applied force.

Thermoplastics: A Synthetic polymer that will take on a new shape on heating, and then return to its original shape on reheating.

Toughness: How the material absorbs impact.

Vacuum forming: A flat sheet of thermoplastic is clamped above a mould and heated until it becomes very flexible. The air is then pumped out from below the sheet allowing it to be drawn down over the mould to take its shape.

Systems and Control Technology (Parade and float operations)

Diodes: Semiconductor devices that allow the current to flow in one direction, light emitting diodes are used in many of the parade costumes work in the evenings.

Dry batteries: Not often used at Disney because of the expense of replacements. The standard single cell voltage of a dry battery is 1.5 volts, higher voltages can be achieved by connecting them in series.

Microprocessors: At the heart of most control systems, its input devices include switches and sensors. Output devices include lights and indicators, motors, displays, relays, switches and solenoids. A microprocessor control systems support the human activities within the resort, continually monitoring activity.

Rechargeable batteries: Wet and dry cells. Wet cells are, for example, used in a lead acid battery in a car. Dry cells are usually nickel cadmium cells. Although initially more expensive, the low recharging costs and long life make them more economic than dry batteries long term.

Relays: An electromechanical device that can be used as an interface between a battery operated control circuit and a mains voltage operating circuit.

Switches: A mechanical device that can connect or disconnect a circuit via a number of connections and positions.

Destination Guide

Updated Summer 2008

With 14.5 million visits in 2007, Disneyland Resort Paris is the most visited tourist destination and the top tour operator in France. The Resort consists of two theme parks offering 59 exciting attractions, Disney Village and seven on site hotels. Here are just a few of our recommendations – for full details and timings pick up a copy of the Park Guides available at your hotel and the entrance to the Parks.

With a park open 365 days a year, occasionally some of the attractions have to be closed for repairs or refurbishment – if you want to check any closures before you travel please go to <http://parks.disneylandparis.co.uk/rehabs-and-closures.xhtml>?

Information on restaurants catering for those with allergies can be found on www.disneylandparis.co.uk/UK/EN/Neutral/Images/food-allergies_uk.pdf

Disneyland Park

Up to date information on times for parades and shows can be found on www.disneylandparis.com/shows_parades/dlp.pdf

Main Street, USA

- Set in the 1900's, pretty painted timber houses, shops and restaurants line the street, vintage cars pass by and Disney Characters wait to greet you every morning in this turn of the century small American town
- For a complete view of the park take a trip on the Disneyland Railroad
- Restaurants include buffet service, fast food and silver service.

Fantasyland – where the fairytales and stories of countless classic animated films come vividly and magically to life

- Sleeping Beauty Castle – fairy tale castle complete with audio animatronic dragon
- "it's a small world" – a relaxing musical and colourful cruise around the world
- Peter Pan's flight - journey to Never Land with Peter, Wendy and Tinker Bell, then cross London in search of Captain Hook
- The Voyages of Pinocchio – join in the incredible adventures of Pinocchio and his friend Jiminy Cricket
- Dumbo the Flying Elephant – young children and adults get a great view of Disneyland when flying with Dumbo
- Mad Hatter's Tea Cups – whirl around in circles in one of the Mad Hatter's giant tea cups
- Restaurants include fast food and table service.

Adventureland – explore a Pirate galleon, deep jungles and distant lands

- Indiana Jones and the Temple of Peril – a roller coaster with lots of loops where you find yourself speeding along in a runaway wagon
- Pirates of the Caribbean – a voyage back in time aboard a ship surrounded by pirates
- Restaurants include fast food, buffet and table service.

Frontierland – join the cowboys, Indians and frontiersmen in the American Wild West

- Big Thunder Mountain – hold onto your hats and take a trip on a runaway mine train
- Phantom Manor – set foot inside a sinister mansion haunted by ghosts

- Thunder Mesa Riverboat Landing and a Mississippi style paddle boat
- Restaurants include fast food, buffet and table service.

Discoveryland – where the future predictions of great visionaries come to life

- Space Mountain: Mission 2 – the roller coaster ride that takes you to the end of the universe with a blast that sends you faster than g-force
- Buzz Lightyear's Lazer Blast – it's Buzz versus the Evil Zurg - help Buzz save the toys in an exciting interactive mission zapping enemy targets
- Honey I Shrunk the Audience – experience Professor Szalinski's amazing shrinking machine for yourself –seeing is believing
- Star Tours – set off for an intergalactic adventure on a Starspeeder 3000 spaceship
- Restaurants feature fast food

Walt Disney Studios – where dreams take centre stage

Up to date information on times for parades and shows can be found on www.disneylandparis.com/shows_parades/wds.pdf

- ❖ New – Stitch Interactive Attraction – a stunning combination of real time computer animation and live, interactive audience fun - Production Courtyard

Frontlot

- Enter the Studio Gates into the legendary world of lights, camera action at Disney Studio 1
- Disney Cinema Parade takes you into the world of film making and Disney artistry
- Restaurants include kiosks, fast food and self service

Production Courtyard

- The Twilight Zone Tower of Terror – the abyss awaits you – drop in if you dare
- Studio Tram Tours – go behind the magic and see the special effects and props behind several major films, featuring the outstanding special effects of Catastrophe Canyon
- Cinemagique – step inside the silver screen and enjoy some of the most magical movie moments of all time – from silent pictures to today's blockbuster hits

Toon Studios/Animation Courtyard

- Crush's Coaster – inspired by the Disney-Pixar film – raise the anchor and dive in!
- Cars Race Rally – join the race for Route 66 and wake up in the town of Radiator Springs
- Animagique – Disney classics come to life – 20 minutes of a song filled stage show incorporating mirrors and black light special effects
- Flying Carpet Over Agrabah – take a ride with Aladdin on one of his 16 magic carpets
- Art of Disney Animation – discover where the magic begins and try your hand at a variety of interactive animation displays

Backlot

- Rock 'n' Roller Coaster starring Aerosmith – experience G force for yourself, complete with music from 120 onboard speakers
- Motors ... Action! Stunt Show Spectacular – a 35 minutes show featuring speeding cars, fast motorcycles, explosions and fire

- Armageddon Special Effects – where the special effects aboard the space station from the movie are real
- Restaurants include kiosks and fast food

Disney Village

Disney Village is the largest entertainment complex in France outside of Paris with dining, entertainment and shopping facilities. It incorporates several leisure activities including PanoraMagique (the world's largest passenger balloon, a multiplex movie cinema and an IMEX screen.

- Disney's Buffalo Bill's Wild West Show – a dinner show portraying how the West was won (admission charge applicable) – this show may not be suitable for asthmatics or people with respiratory problems due to the animals and sawdust in the arena
- Gaumont Disney Village IMAX cinema experience
- Retail therapy – rare Disney collector treats, clothing and thousands of gift ideas
- Nex Games Arcade – indoor leisure centre
- Restaurants ranging from silver service through to buffets, self service and fast food

Disney's on site hotels

The Euro Disney group operates seven on site hotels, with approximately 5,800 hotel rooms, each with its own restaurant/s and bar.

- Disneyland Hotel – a Victorian palace inspired by the grand railway hotels of the 1800's
- Disney's Hotel New York – the lavish art deco atmosphere of 1930's New York
- Disney's Newport Bay Club – a magnificent New England mansion set in Cape Cod
- Disney's Sequoia Lodge – the vast beauty of the American great outdoors set in a forest
- Disney's Hotel Cheyenne – an authentic Wild West town 20 minutes walk from the parks
- Disney's Hotel Santa Fe – a celebration of America's Southwest and the famous Route 66
- Disney's Davy Crockett Ranch – fully equipped bungalows set deep in the countryside

Disneyland Resort Paris selected and associated hotels

As well as the on-site hotels the resort has worked with selected suppliers to create additional accommodation in hotels just next to the site.

Selected hotels

- Hotel Kyriad
- Explorers Hotel
- Holiday Inn
- Vienna International Dream Castle Hotel

Associated hotels

- Hotel l'Elysee Val d'Europe
- Pierre & Vacances Residence Val d'Europe
- Radisson SAS Hotel

All details are correct at the time of writing. Whilst every effort will be made by Disneyland Resort Paris to ensure that all advertised facilities are available, certain shows, parades and attractions may be modified, delayed or cancelled without prior notice.

Val d'Europe

Val d'Europe is the extraordinary shopping, office and living project which forms a complete city just one stop, and five minutes, down the line from the Disney Train station. When you get there, you see they're building a city from nothing. Leaving the station you'll seem to be entering a building site where half-built office blocks and hotels vie with artists' impressions of how the town will eventually appear. Within in a very short walking distance you'll find an enormous shopping mall with a hypermarket and individual outlets. Based on malls familiar to Disney World visitors, a square in the middle full of various eating places leads off to a designer factory outlet mall & Sea Life aquarium. In addition to the designer mall there are many other shops and eating places. Val d'Europe was built in conjunction with Euro Disney SCA and the local and national governments. It will eventually be home to 40,000 people and 60,000 employees!

Hints and Tips

Park and Village Guides: There are three guides available with details of all the attractions and times of the parades (Disneyland Park, Walt Disney Studios Park and Disney Village). Copies are available at the guest relations desks in the parks and may also be available at your hotel.

Security: Disneyland Resort Paris has its own security staff that are trained to react instantly when summoned to any trouble spot, or if anything is spotted on one of the many security cameras. However, as in any busy tourist area, take care of your belongings and do not leave them anywhere unattended. There are security cameras in all boutiques, within the hotels and at the attractions. Please be aware that pickpockets do sometimes find their way into the resort, particularly Disney Village which is open to the public. There are also street traders at the entrance to Disney Village. These are not resort employees and their products cannot be guaranteed.

Safety: Please comply with all safety notices and regulations posted at the entrance to attractions.

Alcohol: Please note, alcohol will only be sold to students over 18, on production of a passport.

Advice about attractions: Please note that some attractions contain health, height and age restrictions for your safety. Also, smoking, eating, drinking and using video cameras and taking photographs with a flash are not permitted inside the attractions.

First aid: Cast Members are trained to handle any situation that may arise and a First Aid Station is located next to the Plaza Gardens Restaurant on Central Plaza in Disneyland Park, in Disney Village, Walt Disney Studios Park and Hotel Cheyenne. Basic medical supplies can be found in any hotel. There is a pharmacy in Val D'Europe, a medical centre in Esbly and a hospital in Lagny. Ask a Study Experience representative or a Cast Member if you need help.

Shopping: Euros, credit and debit cards are accepted throughout the resort. There is a currency exchange at the resort entrance and at City Hall.

Telephones: Both coin operated and credit card phones are available in Disney Village and at hotels. France Telecom phone cards are on sale at the post office and in boutiques.

Leaving the park: If you want to leave a park and return later you will need to show your park pass at the re-entry turnstile.

Yellow buses enable you to get around easily and free of charge. On foot, marked paths from all Disney Hotels take you to the entrance of the Disney Parks in 15 to 20 minutes. Guests at Disney selected hotels outside of the resort have pink buses at their disposal.

Fastpass: Numerous attractions offer the free Fastpass service that lets you access them in minutes. Full details are given in the resort's Park Guides.

Information: There are three information points at the resort, Guest Relations, at the entrance of Disneyland Park, City Hall inside Disneyland Park in Town Square on Main Street, right at the entrance to the park and Studio Services is situated at the entrance of Walt Disney Studios Park. All have park maps, times of parades and shows, information for disabled guests and will take messages if you have lost a member of your group.

Hotels: All hotels provide towels and basic toiletries. Kettles, irons and ironing boards are available on request at the reception.

Internet Access: Several students and teachers have asked us about Internet access during their time at Disneyland Resort Paris. Whilst there are no Internet cafes in the resort WIFI is usually available at the following locations:

Disneyland Hotel – available in restaurants, bar, lobby

Hotel New York – available everywhere

Newport Bay Club – available in lobby, bar

Sequoia Lodge – available in lobby, bar

The Walt Disney Company

Since its founding in 1923, The Walt Disney Company has remained faithful in its commitment to producing unparalleled entertainment experiences based on its rich legacy of quality creative content and exceptional storytelling. Today, Disney is divided into four major business segments: Studio Entertainment, Parks and Resorts, Consumer Products and Media Networks. Each segment consists of integrated, well-connected businesses that operate in concert to maximise exposure and growth worldwide.

Studio Entertainment

The Walt Disney Studios is the foundation on which The Walt Disney Company was built, and at its heart are world-renowned animated features and live-action motion pictures. With the creation of Mickey Mouse and *Snow White and the Seven Dwarfs*, the world's first full-length animated feature, the Disney name quickly became synonymous with quality entertainment for the whole family.

The Walt Disney Studios distributes motion pictures under Walt Disney Pictures - which includes Walt Disney Animation Studios, Pixar Animation Studios and DisneyToon Studios - Touchstone Pictures, Hollywood Pictures and Miramax films. Walt Disney Studios Motion Pictures International serves as the studio's international distribution arm. Walt Disney Studios Home Entertainment distributes Disney and other film titles to the rental and sell-through home entertainment markets worldwide.

Disney Theatrical Group, one of the largest producers of Broadway musicals, also includes Disney Live Family Entertainment and Disney On Ice. In January 2008, after an unprecedented sold-out pre-Broadway engagement, Disney Theatrical Group brought the spectacular new stage version of *The Little Mermaid* to Broadway. *Mary Poppins* continues to enthral crowds in New York and a UK tour started in 2008, and a US tour is planned for 2009.

Disney Music Group distributes original music and motion picture soundtracks under Walt Disney Records, Hollywood Records and Lyric Street Records. Advancing its strategy of developing outstanding creative content, Disney acquired renowned computer animation leader Pixar in an all-stock transaction completed in May 2006. In February 2007, The Walt Disney Studios joined forces with Academy Award-winning director Robert Zemeckis and his ImageMovers partners/producers Jack Rapke and Steve Starkey to form ImageMovers Digital, a new state of the art studio devoted exclusively to the production of performance capture projects.

The Studios also leveraged Disney Channel's ever popular *High School Musical* through CDs, stage plays, ice shows and DVDs. The soundtrack for *High School Musical 2* became the first television movie release to enter the Billboard 200 chart at number 1, where it stayed for four consecutive weeks. In 2008, international productions of *High School Musical* took place in the USA, UK and Spain and later in 2008 *High School Musical 3: Senior Year* comes to the big screen.

Disney Parks Around the World

Walt Disney Parks and Resorts is the division of The Walt Disney Company which manages and builds the theme parks and vacation resorts for which Disney is famous. It is one of the four major units of the company, the other three being Walt Disney Consumer Products, Walt Disney Media Networks, and Walt Disney Studio Entertainment.

The Parks and Resorts division was founded in 1971 as **Walt Disney Attractions** when the second Disney park, the Magic Kingdom at Walt Disney World Resort in

Florida, opened and Disney founded a team specifically charged with running this park along with the sixteen year old Disneyland in California.

Disneyland, Anaheim, California: The resort was founded by Walt Disney in 1955 in Anaheim, California. Disneyland soon became famous all over the world as a place that parents could enjoy with their children. Disneyland Hotel adjoins the park.

In 2001, the area was officially named "Disneyland Resort" with the opening of Disney's California Adventure, a new resort hotel, and Downtown Disney. Disneyland celebrated its fiftieth anniversary on July 17, 2005.

Walt Disney World Resort: The resort opened in 1971 with the Magic Kingdom (similar in layout to Disneyland) and three resort hotels in Lake Buena Vista, Florida. The property is twice the size of Manhattan, with only about a quarter of it having been developed to date. It has become the largest tourist destination on Earth, with four theme parks, two water parks, a shopping and entertainment complex, dozens of resort hotels, and eight golf courses.

Tokyo Disney Resort, located in Urayasu, Chiba, Japan, opened in 1982. Tokyo Disneyland is designed to resemble Disneyland. In 2001 the resort expanded with Tokyo DisneySea. There are several resort hotels on site, but only two are actually owned by the resort, which boasts the largest parking structure in the world. Tokyo Disney Resort is fully owned and operated by The Oriental Land Company and is licensed by the Walt Disney Company. The resort was built by Walt Disney Imagineering, and Disney has a major say in what goes on at the parks - Nick Franklin leads the Walt Disney Attractions Japan team at the Walt Disney Company, which communicates with the Oriental Land Company over all aspects of the Resort, and assigns Imagineers to the Resort.

Disneyland Resort Paris: Disney's fourth resort, Disneyland Resort Paris opened in 1992 as Euro Disney Resort. The name was changed in 1994 to fit the romantic image associated with Paris. Despite the name, the resort is not in Paris proper, but in a suburb about 30 km to the east of Paris. The resort has two theme parks, a shopping complex, two camping grounds, and five resort hotels. It is maintained and managed by Euro Disney SCA, a company partially owned by the Walt Disney Company and whose stock is traded on Euronext.

Hong Kong Disneyland Resort: Disney's fifth resort (the second in Asia) opened on September 12, 2005. Hong Kong Disneyland Resort is partly owned by Disney and partly owned by the government of Hong Kong. Current plans are for one theme park and two hotels, with land reserved for future expansion.

Disney Cruise Line: Though it is part of the Walt Disney World Resort venture, Disney Cruise Line is an altogether separate branch of Walt Disney Parks and Resorts. The Disney Cruise Line was formed in 1995 with the launch of two ships, the "Magic" and the "Wonder". Both ships stop at Disney's private Bahamas island, Castaway Cay, and were fully designed by Walt Disney Imagineering.

The future: Disney announced in July 2007 that there would be no new resort on the Chinese mainland before 2010, but a site has been allocated and is three times the size of Hong Kong Disneyland Resort, or roughly the size of Disneyland Resort Paris. There is land in Hong Kong Disneyland Resort for a second park. Disney also have plenty of land to use in Disneyland Resort Paris. The only resort that is extremely short on land is Disneyland Resort in California, although Disneyland has enough land to build a third theme park on a former strawberry farm located near the resort, and the remainder of the original parking lot, now behind Disney's California Adventure, will more than likely be demolished to add on to the park.

Consumer Products

Disney merchandising began in 1929 when Walt Disney was approached by a businessman interested in placing Mickey Mouse on the cover of a children's writing book. The business segment of The Walt Disney Company now known as Disney Consumer Products (DCP) extends the Disney brand to merchandise ranging from clothing, toys, home décor and books and magazines to interactive games, foods and beverages, stationery, electronics and fine art.

The tween market is among the fastest growing segments at DCP, resulting in unique products that have generated impressive retail sales worldwide. With Disney Channel's smash hits *High School Musical*, *Hannah Montana* and *The Cheetah Girls*, DCP has connected tweens to their favourite stars through a creative assortment of lifestyle products celebrating fashion, music and friends.

Disney Publishing Worldwide (DPW) also falls under DCP and is the world's largest publisher of children's books. DPW includes Disney Educational Productions, Disney's Magic English, Disney Books and Disney Libri, and domestic imprints such as Hyperion Books for Children, Disney Press, and Disney Editions, as well as the number one children's magazine in the United States, *Disney Adventures*. Currently more than 60 *High School Musical* related titles have been published worldwide and are available in more than 30 countries, selling more than 9.3 million copies to date.

Other businesses within DCP are Disney Interactive Studios, bringing Disney content to the interactive gaming community and disneyshopping.com, The Walt Disney Company's official shopping portal. The Disney Stores, which debuted in 1987, currently operate in North America, Japan and Europe.

Media Networks

Disney Media Networks comprise a vast array of broadcast, cable, radio, publishing and Internet businesses. Key areas include: Disney-ABC Television Group, ESPN Inc., Walt Disney Internet Group, ABC Owned Television Stations, and a supporting Headquarters group. Marketing, research, sales and communications functions also exist within the segment.

Disney-ABC Television Group is responsible for all of The Walt Disney Company's worldwide entertainment and news television properties. The Group manages The ABC Television Network, the Disney Channel Worldwide portfolio of kids' channels, ABC Family and SOAPnet; as well as television production and syndication divisions ABC Studios, Walt Disney Television Animation, Disney-ABC Worldwide Television and Walt Disney Television International. Disney-ABC Television Group also manages The Radio Disney Network in addition to the Company's equity interest in Lifetime Entertainment Services and A&E Television Networks.

ESPN Inc., The Worldwide Leader in Sports, is the leading multinational, multimedia sports entertainment company featuring the broadest portfolio of multimedia sports assets with over 50 business entities.

The Walt Disney Internet Group (WDIG) offers a compelling mix of interactive entertainment and information content and services for Internet and mobile devices for audiences around the world. WDIG is both a developer of unique new media experiences specifically designed for Internet and mobile media and a developer of new platforms for distributing content selected from broad, existing entertainment divisions and libraries of The Walt Disney Company.

Walt Disney International

In 2007 Walt Disney International continued to build on the Company's commitment to global growth, creativity and technology, strengthening its presence in key emerging markets, including Russia, China and India, as well as enhancing local relevance of the Disney brand around the world.

From Russia to the Far East to Latin America, Walt Disney International has capitalised on localised versions of the great Disney family entertainment. Winnie the Pooh made his debut in Moscow to celebrate the start of the Year of the children, while Mickey Mouse surprised everyone when he showed up to help celebrate the premiere of *Pirates of the Caribbean: At World's End* at the biggest multiplex in the centre of Moscow, helping the film become the largest foreign release in Russian history.

Disneyland Resort Paris Time Line

- 24 March 1987 The French Government and the Walt Disney Company sign a charter for the creation and operation of Euro Disney. The landmark agreement foresees the creation of the tourist destination and the town of Val d'Europe.
- 12 April 1992 After a two day star studded Grand Opening ceremony, the gates of Disneyland Park open to the public for the first time.
- 30 June 1993 Deep in Adventureland, the Imagineers unveil a forgotten temple. The Indiana Jones and the Temple of Peril attraction becomes the first roller coaster type attraction in a Disney Theme Park to feature a 360° loop.
- 19 May 1994 In a unique procession where Cast Members form the body of a paper dragon style train, the Marne-la-Vallée/Chessy TGV station is inaugurated. The station begins welcoming guests arriving by high speed trains from throughout France.
- 1 June 1995 A groundbreaking new attraction opens in Disneyland – Space Mountain. The attraction pays homage to French science fiction writer Jules Verne's novel From the Earth to the Moon. A new version of the attraction later re-launches in April 2005 as Space Mountain: Mission 2.
- 29 June 1996 Disneyland Resort Paris proved to be little more than a train ride away from the UK when the Eurostar service begins. Regular scheduled high speed trains connect stations in London and Ashford with Marne-la-Vallée/Chessy.
- 7 May 1997 Disney Village throws open the doors of its Gaumont multiplex cinema. The complex opens with eight screens and added another seven in 1999. In April 2005 a latest generation IMAX addition also opened.
- October 1997 The Resort secured its position as a business conference destination with the Newport Bay Club Convention Centre opening its doors, increasing convention capacity by 5,000 guests.
- 28 March 1999 Disneyland's new Imagination Institute greets its first guests. The Honey, I Shrunk the Audience attraction located there offers guests a uniquely shrinking experience.
- 31 December 1999 Thousands of guests attend an unforgettable Millennium celebration with two new parades – Disney's ImaginNations and the Millennium Electrical Parade.
- 24 October 2000 Three years after the first stone was laid in 1997, Val d'Europe International Shopping Mall opens its doors.
- 7 January 2001 The 100 millionth guest, German winemaker Stefan Seyffaredt, receives a lifetime Disney passport for himself and his family.
- July 2001 Disney Channel France set up home at the resort. The Company and its Cast Members move into a studio complex in the theme Park.

16 March 2002	The Resort's second Theme Park, Walt Disney Studios Park, opens its doors to celebrate the worlds of cinema, animation and television.
18 November 2003	Disney Cast Members celebrate Mickey Mouse's 75 th birthday by inviting 6,500 underprivileged children for a magical experience.
8 April 2006	An immediate hit with guests, the new Buzz Lightyear Laser Blast attraction opens. Inspired by the Disney/Pixar film Toy Story 2.
9 June 2007	Two new attractions open in the Walt Disney Studios Park: Crush's Coaster plunges ocean lovers into the East Australian Current in the company of Nemo and friends; inspired by Disney/Pixar's Cars, roar down the legendary Route 66 with Lightning Mc Queen in Cars, Quatre Roues Raylle.
2007/8	Disneyland Resort Paris celebrates its 15 th birthday with Disney's Once Upon a Dream Parade; the Candlelabration evening celebration; Disney Characters' Express and other special events.
January 2008	Twilight Zone Tower of Terror: who dares drop into this haunted hotel? Only those brave enough to risk free-falling thirteen unlucky floors into another dimension.
March 2008	Launch of Stitch Live in Walt Disney Studios Park.

For further information go to:

www.corporatedisney.go.com for details on the whole of the Walt Disney Company.

http://disney.go.com/vault/archives/characters_ai.html for complete details on all Disney characters

www.disneylandparis.com available in six languages (French, English, German, Spanish, Italian and Dutch). Gives complete information on the Disneyland Park, the hotels, Disney village and golf facility. Memory games, puzzles, quizzes, colourings. Online sales and bookings.

www.disneylandparis.co.uk English language version. Gives complete information on the Disneyland Park, the hotels, Disney village and golf facility. Memory games, puzzles, quizzes, colourings. Online sales and bookings.

www.eurodisney.com who are we? Essential figures of the company, employees, environmental policy, community relation actions, development projects, press kits.