



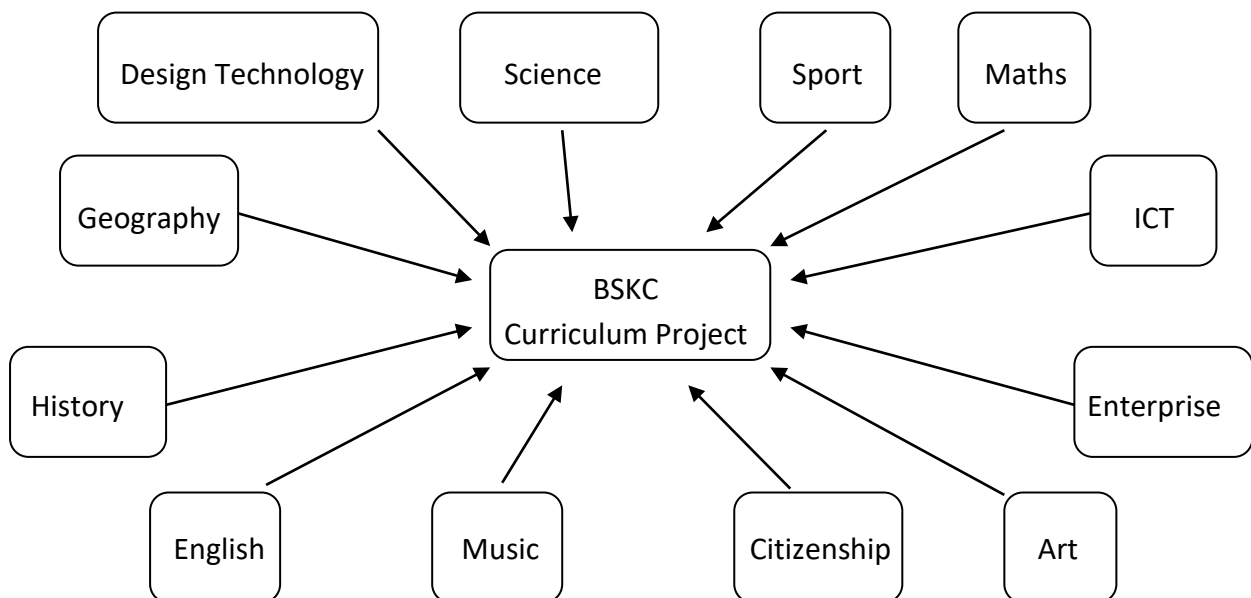
## Developing Cross Curriculum Projects using the British Schools Karting Championship

The British Schools Karting Championship can be easily used to develop and implement a full cross curriculum project in key stages 3 – 5. The maps below show the key areas that make up the project. Hyperlinks are provided to show the headline content.

Full management, leadership and teacher support is available to help you build and implement the project.

### KS3 Project Map:

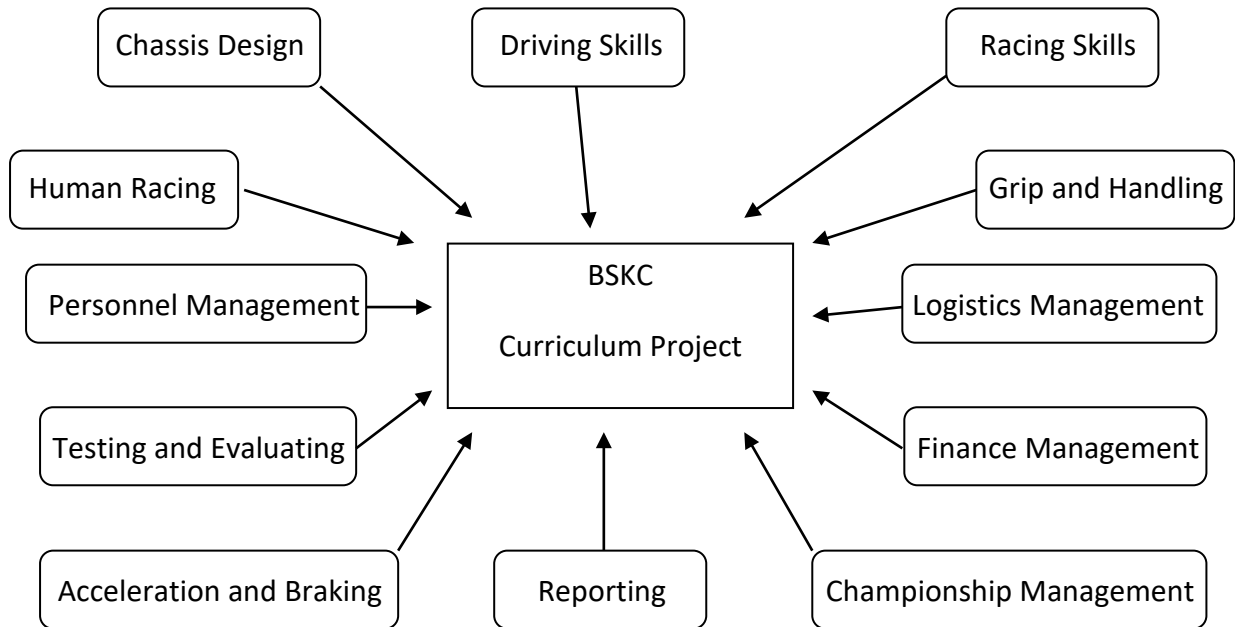
Click on the subject to show the content





### KS4/5 Project Map:

Click on the project title for content





## KS3 Curriculum Project Headline Content

### Design Technology

- Chassis requirements/ specification
- Chassis Design
- Materials and properties
- Joining and machining
- Steering and control systems
- Braking systems

### Science

- Factors affecting speed and acceleration
- Maximising acceleration
- Maximising and Minimising friction
- Useful and harmful friction
- Tyre design and grip
- Human reactions
- Pressure in liquids – hydraulic systems

### Sport

- Understanding motorsport rules
- Driver fitness
- Maximising human performance to compete

### Maths

- Data Handling using lap data
- Pattern finding using sector and lap data
- Prediction and hypothesis of effect of change of input/set up

### Geography

- Karting as a leisure industry – the evolution and position of facilities within towns and cities
- The effect of motorsport on the local economy

### ICT

- Data Logging/ Data Handling/ Information production
- Database development
- Facilities mapping and web site analysis



## History

- The history of motorsport in the UK
- The social history of car manufacture in the UK

## Enterprise

- Leisure karting as a growth industry
- Setting up and running a Kart track
- Team financial planning
- Getting sponsorship

## English

- Reporting styles in motorsport
- Reporting Kart events
- Promotional writing

## Music

- BSKC Theme

## Citizenship

- Factors that affect drivers
- Reducing the risk of driving
- The effect on the environment of motorsport
- Fairness of access – is motorsport elitist?
- Supporting innovation –should motorsport in the UK be government supported?

## Art

- Team Logo and uniform design



## • **KS4/5 Curriculum Project Headline Content**

### **Chassis Design**

- Chassis Design Requirements
- Specification
- Flex as suspension
- Steering design
- Braking Design
- Control Systems
- Materials
- Machining
- Manufacture

### **Driving Skills**

- Coordination and control
- Reactions
- Estimation of speed and distance
- Braking distances
- Controlling skids and slides
- Knowing the limits

### **Racing Skills**

- Maximising grip
- Braking and turning
- Limitations and limits
- Getting the competitive edge
- Maximising drive/ minimising slip

### **Human Racing**

- Improving Reaction times
- Developing concentration
- Mind mapping circuits
- Identifying methods of performance improvement

### **Grip and Handling**

- How tyres work – friction and chemical control
- The difference between wet and dry tyres



- Caster, Camber and control
- Turn in, oversteer, and understeer

### **Personnel Management**

- Getting the best from people
- Team working
- Team organisation and communication
- Setting and evaluation team performance targets

### **Logistics Management**

- Routes, transport and costs
- Planning and organisation of events

### **Testing and Evaluating**

- Data logging and information production
- Predicting and testing hypotheses
- Identifying reasons for changes in performance

### **Finance Management**

- Budget setting and monitoring
- Financial planning in motorsport
- Accounting
- Sponsorship

### **Acceleration and Braking**

- Factors affecting acceleration
- Methods of maximising acceleration
- Hydraulic braking systems
- Factors affecting braking efficiency
- Maximising braking effect

### **Reporting**

- Writing for a target audience – the motorsport fan
- Journalism and sport
- Reporting our achievements and successes

## Championship Management

- Event management
- Event planning
- Championship logistics
- Championship development planning