



ICT in Physical Education at Key Stages 3 & 4

Physical education develops pupils' physical competence and confidence, and their ability to use these to perform in a range of activities. Pupils learn how to think in different ways to suit a wide variety of creative, competitive and challenging activities. They learn how to plan, perform and evaluate actions, ideas and performances to improve their quality and effectiveness. Through this process pupils discover their aptitudes, abilities and preferences, and make choices about how to get involved in lifelong physical activity. From Key stage 2, children should know how to improve aspects of the quality of their work, using information provided by the teacher and information and communication technology (ICT) opportunities, and increasingly help themselves and others to perform effectively.

The QCA Schemes of Work

The QCA schemes of work identify three main areas of ICT activity that are required to support work in Physical Education.

- Use of a cassette or CD player, video camera and playback equipment and the use of an electronic keyboard as a source of music.
- CD-ROMS and the Internet for research
- Use of a digital video camera and an interactive whiteboard to record their performances and compare their techniques with professional players

The following paragraphs identify the PE Units where ICT is needed and give a brief description of how it is used.

Dance activities: Units 1/2/3/4 link: Yrs6/7, development: Yrs7/8, intermediate: Yrs9/10, advanced: Yrs10/11

Have opportunities to use ICT and digitally video sequences and dances to compare ideas. Cassette, CD player and electronic keyboards can be used as a source of music. Databases with visual images could be used as stimuli for dances. Pupils could research dance crazes on CD Rom and the Internet, selecting relevant information and linking it to other information derived from a range of sources. Devise an end of unit video, which could be send to evaluate and improve their performances.

Games activities: Unit 5 link: Yrs6/7

Pupils could use the Internet to research the rules of mini games. They could use a video to record their performances and an interactive whiteboard to compare their techniques with those of professional players. They could use game analysis software to track and analyse players' performances.

Invasion games: Unit 6 development: Yrs7/8

They could use a video to record their performances and an interactive whiteboard to compare their techniques with those of professional players. They could use game analysis software to track and analyse players' performances and carry out an evaluation.

Invasion games: Units 7/8 intermediate / advanced: Yrs9/10 Yrs10/11

Search the Internet to find information about sports and opportunities to take part, e.g.

www.english.sports.gov.uk

Pupils could use the Internet to research the rules of mini games.

They could use a video camera to record their performances and an interactive whiteboard to compare their techniques with those of professional players. They could use game analysis software to track and analyse players' performances and carry out an evaluation of their play.

Striking and fielding games: Units 9/10 development: Yrs7/8, intermediate: Yrs9/10

Search the Internet to find information about sports and opportunities to take part in sports, using knowledge of how texts, databases, etc are organised, e.g. www.english.sports.gov.uk

They could use game analysis software to track and analyse games and patterns of play.

Striking and fielding games: Unit 11 advanced: Yrs10/11

Search the Internet to find information about sports and opportunities to take part in sports, e.g. www.english.sports.gov.uk

Pupils could use the Internet to research the rules of mini games.

They could use a video camera to record their technique and compare with techniques on a database using an interactive whiteboard.

Net/wall games: Units 12/13/14 development: Yrs7/8, intermediate: Yrs9/10, advanced: Yrs10/11

Search the Internet to find information about sports and opportunities to take part in sports, e.g. www.english.sports.gov.uk

Video materials / digital camera and playback facilities / game analysis software

Gymnastic activities: Unit 15 link: Yrs6/7

Pupils could use a digital video or stills camera to record sequences and combinations of actions. To help them to evaluate the quality of movements and links. They could also use their recordings to improve their performances by comparing and contrasting each other's work.

Pupils could use a graphics package to record different apparatus layouts.

Gymnastic activities: Units 16/17/18 development: Yrs7/8, intermediate: Yrs9/10, advanced: Yrs10/11

Video cameras linked to CD-ROM could be used to record pupil's work. Linking their actions into a database of actions and agilities will help them to compare and contrast techniques. Using digital tracking devices, pupils can observe and analyse what specific parts of the body do in action or balance.

Swimming activities: Units 19/20/21 development: Yrs7/8 intermediate: Yrs9/10 advanced: Yrs10/11

A digital or video camera could be used to help pupils analyse their own performance.

Athletic activities: Unit 22 development: Yrs7/8

Databases and CD-ROMS of techniques and performance could be used for pupils to observe good performances.

Video or digital cameras can be used to provide feedback to pupils as they learn and refine techniques. Spreadsheets could be used to record and monitor progress.

Athletic activities: Units 23/24 intermediate: Yrs9/10 advanced: Yrs10/11

Databases and CD-ROMS of techniques and performance could be used for pupils to observe good performances.

Video or digital cameras can be used to provide feedback to pupils as they learn and refine techniques. Spreadsheets could be used to record and monitor progress, possibly linked to electronic timing and measuring devices.

Outdoor and adventurous activities: Units 25/26/27 development: Yrs7/8 intermediate: Yrs9/10 advanced: Yrs10/11

Use route-planning software. Pupils to use the Internet to obtain weather forecasts.

Hardware

A cassette or CD player and the use of an electronic keyboard are needed to provide a source of music. Pulse rate monitors are required at KS4 to allow data to be collected and used effectively.

A digital still or video camera and suitable playback equipment enables children to record their performances and compare their techniques with professional players throughout. An interactive whiteboard enhances whole class observation and discussion of activities.

Assessment

At Key Stage 3 the ICT needed to support the PE units will usually have been taught separately, and should be assessed during ICT lessons. Where the PE Department has responsibility for delivering sections of the ICT Curriculum, ICT will need to be recorded and assessed.

Key Stage 3 & 4 Software audit for Physical Education

Key Stage 3

QCA Unit of work		
Dance activities: Units 1/2/3 link, development, intermediate	Cassette or CD player, video camera and playback equipment, CD-ROM	
Games activities: Unit 5 link	Internet, Digital video	
Invasion games: Units 6/7 development, intermediate	Digital video, CD-ROM	
Striking and fielding games: Units 9/10 development, intermediate	Internet, Digital video, CD-ROM	
Net/wall games: Units 12/13 development, intermediate	Internet, Digital video, CD-ROM	
Gymnastic activities: Unit 15 link	Digital video, Graphics package	
Gymnastic activities: Units 16/17 development, intermediate	Digital video, CD-ROM	
Swimming activities: Units 19/20 development, intermediate	Digital video	
Athletic activities: Unit 22/23 development, intermediate	Digital video, CD-ROM, Spreadsheet package	
Outdoor and adventurous activities: Units 25/26	Route Planning Software, Internet	

Key stage 4

Dance activities: Units 3/4 intermediate / advanced	Cassette or CD player, video camera and playback equipment, CD-ROM	
Invasion games: Units 7/8 intermediate / advanced	Internet, Digital video, CD-ROM	