

Year 3  
Unit 3a  
Summer Term

Unit 3a

This unit is about combining text and graphics on the same page.

Vocabulary to learn

Font	highlight	select all	frame	copy
paste	insert	align left	align right	centre
resize/scale		graphics		

Resources

Graphics package - Colour Magic or Paint

Word processing package - Publisher\* or Talking first word or word

\*recommended for year 3.

Greetings cards or brochures for demonstration.

Assessment

All will be able to combine graphics with text on the same page, at the end of this unit (4-6 weeks).

Most will be able to do the above, and alter text by highlighting and overtyping and re-sizing graphics.

Some will do the above, and alter the text and graphics to compliment each other, and show awareness of audience.

Unit 3a

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Lesson one

Using brochures/greetings cards discuss the elements of design.

pictures - call them graphics

text - call them fonts, captions and messages.

Using card example, get class to label the following

Picture

fonts

captions

messages

Learning Outcome

To recognise key features of layout.

Lesson Two

Teacher led example, leading to working in pairs on a computer, each producing one printed example. If no time to print, teacher to save on floppy, and print later.

Skill 1 - To alter font type, size and colour for emphasis and effect.

Teacher types in following words: Rainbow, grow, lean, high, low, stairs and ghost.

Then demonstrates font editing features by changing;

Font type: from Times New Roman to Arial

Font size: from size 10 to size 24.

Font colour: from black to green

Pupil Task: Take one word from the list i.e. Rainbow, and change it's size and make each letter a different colour.

Print out each pupil's work.

Learning outcome

To alter the look of text to create an effect.

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Lesson 3

Open up piece of text where the adjective 'nice' is the only adjective used. Discuss why this is not appropriate. Talk about other adjectives that can be used.

Skill 2

Teacher led task. Highlight the words 'nice' and overtype another more suitable adjective.

Skill 3

Teacher led task. Using floppy to save information.

Lesson 4

Recap on last week's 'nice' work. Teacher again shows how to edit text and save onto floppy.

Pupil task: To edit piece of work (2 versions available), and save amended version onto own floppy under the heading 'nice' work.

Learning outcome:

To amend text and save work onto own floppy disc.

Skill 5

Teacher shows how to locate, retrieve and insert a graphic into a piece of text.

Publisher : Open text frame, type in text, open picture frame, press insert on task bar, choose picture file or clipart. Choose image, Click on insert, OK Choose change picture to fit frame, OK

Teacher shows how to re-size graphics

Unit 3(a)  
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Lesson 5

Teacher recaps on last week's lesson.

Pupil's Task

Pupil's write down their favourite hobby or friend's name, find a picture to go with it. Insert it.

Save onto floppy. These can be printed off later, and used as drawer name tags.

Lesson 6

Repeat lesson 5, so all have accomplished task.

Lesson 7

Skill 6

Teacher shows how some keyboard characters are in the upper case sections, and can be used by pressing shift key for one character only, and Caps Lock key for a series of characters.

Extension work 1

Using punctuation work 1 or 2 on the computers hard drive (C Drive) Get the more able to remove the x and replace with relevant punctuation marks. Save onto floppy.

Extension work 2

Using Publisher allow them to produce a piece of work (topic related might be best) and illustrate it with clip art images (pieces of poetry are also good). Print off.

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Unit 3b  
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Summer Term

Unit 3b

This unit is about manipulating sound. It is recommended that 3 Lessons from this unit, be taken as Music Lessons away from the computers.

Vocabulary to learn

Sequence

Resources

Electronic keyboard  
Tape Recorders and blank cassette tapes  
RM Music Explorer  
RM Compose  
Musical Cards\*  
CD Encarta

Assessment

All will be able to create a simple musical composition on Music Explorer.

Most will be able to create a sequence of musical phrases on Music Explorer.

Some will be able to use music software to develop and refine a musical composition and adapt it for performance.

## Unit 3b

### Page 2

#### Lesson one

Using Electronic Keyboard, and musical cards, discuss by playing keyboard, what instruments the children can recognise. Children can take it in turns to select a card and find the instrument and play a few notes.

#### Learning Outcomes

Recognise that an electronic keyboard can be used to select and control sounds.

#### Lesson Two

Discuss families of instruments, such as strings, woodwind, percussion etc. Get them to sketch a musical instrument.

#### Lesson Three

Using the CD Encarta, find musical instruments, and find the family For the instrument you drew last week.

Using a tape recorder, some groups can record a musical instrument From a particular family. The tapes can be listened to during a music lesson, and a simple display made of the cassettes.

#### Learning outcome

Locating and recording sound.

## Unit 3(b)

### Page 3

#### Lesson Four

Using compose look at how icons (pictures) represent different sounds. Discuss how they sound i.e. happy sad etc.

#### Pupil Task

The class then choose a sequence of icons representing a sequence of music. They then work on lyrics to go with the melody.

Whole class then performs the lyrics with the music.

Record this music with a tape recorder.

#### Learning Outcome

Children understand how musical phrases can be organised and re-organised using icons.

#### Lesson Five

Look at RM music explorer, discuss how the music is now represented as blobs on a series of lines. Can talk about notes and staves.

#### Pupil Task

As a class create compositions using a particular instrument from a particular family. Not percussion.

Introduce percussion instruments (not computer). Play computer sound and look at rhythm, get the class to perform on the percussion instruments alongside the computer sounds.

Discuss the differences between computer controlled and live music.

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Learning outcome

Recognise some of the differences between live and computer controlled sounds.

Lesson extension

Pairs of children can create sequences of music for a particular mood i.e. sad, happy etc. They can present these to the class.

Unit 4b  
Developing images using repeating patterns

Unit 4b

This unit allows children to use computers to explore and experiment with their work.

It is suggested that this unit works alongside symmetry and tessellation in maths, and pointillism in art.

Vocabulary to learn

Cut	copy	paste	import	export
Undo	save as	scanner	clip art	digital camera

Resources

Colour magic or Paint program	wrapping paper with repeat patterns
Scanner	Pictures by Seurat
Digital camera	Images of Islamic art work
Clip art	Images of stained glass windows.

Assessment

All children will be able to use a graphics program to develop an image.

Most of the children will be able to use a variety of tools to develop an image, with a graphics program.

A few of the children will be able to develop and refine an image, selecting appropriate tools and saving drafts.

Lesson 1

Skill 1

Review cut and paste tools, practising with these.

Lesson 2

As part of an art lesson.

Teacher Task

As a class examine wrapping paper with repeating images. Discuss how the

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Developing images using repeating patterns  
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Patterns are created, and talk about background colours used.

Lesson 3

Skill 2

On colour magic, select the ready-made stamp facility, and show how to select large and small images.

Pupil Task

Thinking about a repeating pattern wallpaper using stamps, create a wrapping paper sheet for a birthday. Not forgetting the importance of background colour with flood fill. Save onto disc.

Teacher note

Print out some of the examples, and use in maths lesson alongside Escher pictures, certain individuals can (at break etc), try making an Escher picture on the computer.

Learning Outcome

Children will create repeating patterns using stamps.

Lesson 4

Skill 3

Teacher demonstrates copy, and paste tools using stamps from last week. Teacher also demonstrates 'undo' command in edit.

Pupil Task

Children create repeated pattern wrapping paper, using stamps and copy, paste tools. Print examples.

Lesson 5

As part of an art lesson

Teacher Task

Show examples of Seurat's work, discuss the dot method – Pointillism.

Pupil Task

Children create Seurat pictures in their sketch books, using the Pointillism method.

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Lesson 6

Skill 4

Teacher task

Teacher demonstrates how to alter the size and pattern of the brush tool to produce pointillistic effects.

Pupil Task

Children re-create their sketch book sketches onto Colour Magic or Paint. Save to disc.

Learning Outcome

Children can create pictures using a variety of brush sizes and effects.

Lesson 7

Teacher Task

Show how to select, copy, re-size parts of screen.

Show class a picture of tropical fish.

Pupil Task

Children create a fish tank, by drawing a single fish, then making multiple copies of it in various sizes.

Learning outcomes

Children learn how to select areas, copy and re-size them.

Lesson 8

Skill 5

Teacher opens Colour magic or paint and demonstrates how to use symmetry tool.

Pupil Task

Design a carpet which uses symmetry as it's pattern. Save onto floppy.

Learning outcome

Children can create patterns using the symmetry tool.

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Lesson 9

In art lesson

Pupil Task

Get children to create a black and white template for a stained glass window, using felt pens/ink, possibly inspired by Charles Rennie Mackintosh OR from sketches made from a local church.

Scan into computer – using 'save as' - onto floppies.

Lesson 10

Skill 6

Show how to open an existing document, and flood fill templates of stain glass windows.

Pupil Task

Complete picture of stain glass windows, and print.

Learning Outcomes

Children can recognise that a screen image can be a finished product.  
Children can save drafts which show the development of their design.



Unit 4c  
Branching databases.  
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Learning Outcome

Children can identify a series of yes/no questions to identify objects.

Lesson 2

In topic lesson.

Teacher Task

On the board demonstrate a tree diagram of branching questions, which can be used to identify individual creatures.

List 6 objects on the board, and ask the class to create their own tree diagram to identify each object. Come back as a class and discuss what worked and what didn't, what the problems were, and how to solve them.

Homework

Give the children a sheet of paper with 6 objects on it. They must create a tree diagram of branching questions to identify each individual object.

Lesson 3

Teacher Task

Show the children how to get into branching database on the computer, and how to search the database for specific creatures.

Pupil Task

Give each pair of children a creature, and ask them to use the database to find the creatures habitat.

Learning Outcome

Children can search a branching database to identify objects.

Lesson 4 and 5

Teacher Task

Demonstrate how to create a branching database.

Pupil Task

Using homework, create own database and save.

Learning outcome

Children can create a branching database which identifies items uniquely.

Unit 4d  
Collecting and presenting information:  
Questionnaires and Pie Charts.

Unit 4d

This unit is about learning how to use a data handling package to create bar charts, pie charts and line graphs, and how to use this information to support a argument.

Vocabulary to learn

Questionnaire

pie chart

line graph

bar chart

Resources

Information workshop

Laminated graph examples

Assessment

All the children will be able to collect data and enter it into a data handling package and use it to create bar charts, pie charts and line graphs.

Most of the children will be able to collect data in a way that aids entry into a data handling package and use it to create bar charts, pie charts and line graphs.

Some children will be able to collect data in a way that aids entry into a data handling package and choose the appropriate form of a graph to represent it.

Lesson 1

In maths lesson, or away from ICT suite.

Teacher Task

Give out the laminated example of graphs which show different pieces of information. Discuss with the class how the different graphs represent data (actual information). Discuss how much easier it is to see information when represented in graph form than in numbers.

Learning Outcome

Children can understand that different graphs are used for different purposes.

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Collecting and presenting information:  
Questionnaires and Pie Charts  
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Lesson 2

Maths lesson – data handling

Teacher Task

Remind class what a record and a field is (from year 3 work).

Talk about how they are going to gather information about all the children in year 4, and create a database which they will use for the Grendon Trip.

Pupil Task

Discuss what information is necessary for the Grendon trip. Discuss how it would be best if the questions were all on one sheet, with a means of recording numbers or names at the side (like a tick sheet). Discuss how it would be better if the structure of the sheet matched the fields in the database.

Children produce a sheet of questions to match the fields.

Learning Outcome

Children can design questionnaires which match the structure of the database.

Lesson 3

Teacher Task

Discuss how you are going to check if the proportion of girls and boys in your class is the same as the school.

Pupil Task

Get children to enter the number of boys and girls in your class onto a database, and enter the number of boys and girls in the school onto the same database.

Create bar charts for both sets of information. Now create pie charts. Discuss how although the pie chart does not show that there are more boys than girls in the class than in the school, they are more useful to show comparisons.

Learning outcome

Children can produce pie charts using ICT and recognise that the larger the segment, the larger the proportion.

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Collecting and presenting information:  
Questionnaires and pie charts.  
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Lesson 4

Pupil Task

Discuss with the class how they can test hypothesis by using a pie chart.  
Create hypothesis for 4 groups (making sure there are enough children in the group to create paired work on the computer).

**HYPOTHESIS 1 – MORE BOYS LIKE FOOTBALL THAN GIRLS.**

**HYPOTHESIS 2 – MORE BOYS OWN BICYCLES THAN GIRLS.**

**HYPOTHESIS 3 – MORE BOYS OWN/PLAY ON COMPUTERS (AT HOME) THAN GIRLS.**

**HYPOTHESIS 4 – MORE BOYS CAN ROLLER SKATE THAN GIRLS.**

Each child must create a sheet for gathering information, then as a pair, gather the information, then create a pie chart, and answer their hypothesis.  
Print off pie charts, and staple to sheet of gathered information.

Learning outcome

Children can use pie charts to make comparison between populations.

Lesson 5

Teacher Task

Give out the bar chart, pie chart and line graphs to pairs. Discuss how the bar chart and the pie chart make it seem as if the shadow on the playground has jumped from length to length. Whereas the line graph shows a smooth transition of information. Discuss how time dependant information is best represented on a line graph to show continuous logging.

learning Outcome

Children understand that line graphs are used to represent continuously changing data.

**IF POSSIBLE GET COMPUTER TECHNICIAN TO SHOW WEATHER REPORTER LOGGING WEATHER INFORMATION.**

Unit 4a  
Writing for a different audience

Unit 4a

This unit looks at how ICT can be used to organise, reorganise, develop and explore ideas.

Vocabulary

Font size	bold	copy	move	cut and paste
Spell check	find and replace			

Resources

Collection of newspaper articles  
Publisher program  
Different coloured highlighters

Assessment

All children will be able to spell check their written work.

Most of the children will be able to cut, copy, paste, bold, re-size, delete and spell check their work correctly.

Some children will be able to do all the above and cut, copy, paste, delete, insert, overtype and spell check each document.

Lesson 1

During a literacy lesson.

Look at examples of newspaper articles. Discuss 'telescoping' or 'zooming in' (big font headline, small font size in text). Using highlighters, get pupils to highlight 'different styles of heading' (language style not text style). 'Colourful adjectives and adverbs', and 'sequencing of events'.

Explain that class will be producing newspaper articles, using these features on Publisher

Learning Outcome

Children recognise that newspapers use a variety of written and visual effects.

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Writing for a different audience  
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Lesson 2

Skill 1

Demonstrate how to alter font size and use bold. Checking all know how to print.

Pupil Task

Children (in pairs) type in a list of 5 things to improve playtime. Children then (I) re-size and bold to indicate priority of improvements.

(II) Print

(III) re-size and unbold text to original size.

Learning outcome

Children can use font sizes and effects appropriately.

Lesson 3

In Pairs open Year 4 Unit 4a Instructions (a) or (b), which is saved on all machines hard drives (C: drive).

Explain that information is not presented in a clear manner.

Skill 2

Teacher shows how to highlight, cut and paste text, to order things correctly.

Pupil Task

Using cut and paste, re-organise text piece. Save onto own floppy (even half finished work).

Learning outcome

To use cut and paste to re-order text to produce a coherent sequence of events.

Lesson 4

As lesson 3, in order for those who did not complete task to do so.

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Writing for a different audience  
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Lesson 5

During literacy hour.

Look at 2 examples of short descriptive passages. Look at how words create moods i.e. adjective or adverb use, idiomatic phrases, similes, metaphors and personification.

Taking the passage ask them to change the mood of the passage

Passage 1 – from happy to sad

Passage 2 – from dull to exciting

Lesson 6

Skill 3

Teacher shows how to delete, insert and overwrite words.

Pupil Task

Open passage 1 or 2 (saved on hard drive) - Year 4 Unit 4a Passage 1 or Passage 2. Using work from classroom and skills, delete, insert and over type. Change Passage mood. Save work onto floppy.

Learning Outcome

Children can edit text.

Lesson 7

As lesson 6, in order for children to complete task.

Lesson 8

Skill 4

Teacher opens ‘Teacher spell checking mistake’. This is an extract from an encyclopaedia with spelling mistakes! Discuss why spelling is important, and explain that before a book is published, Editors and proof readers correct spelling mistakes.

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Writing for a different audience  
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Show how to use spell checker, and explain that sometimes it makes a number of suggestions i.e. for the word WRD (word spelt incorrectly) it chooses WRY and WORD. Explain that it does not correct mistakes for real words i.e.  
The cat set on the mat.

Lesson 8

Teacher recaps on how to use spellchecker.

Pupil Task

Open Year 4 spell checking (a) or (b), in pairs, use spell checker to correct extract. Save spell checked example onto floppy.

Learning outcome

To use spell check, but recognise that spell check is an aid, rather than a substitute for being able to spell.

Lesson 9

Skill 5

Talk about when you need to correct the same word throughout the same piece i.e. changing he to her. Show how to use AutoCorrect.

Pupil Task

Some to finish off lesson 8, those who have finished load Year 4 AutoCorrect extension piece, and AutoCorrect it. Save to disk.

Learning outcome

Pupils can recognise that ICT can automate manual processes.

Pupils can also see the advantages and disadvantages of this process.

Lesson 10

During Literacy or History topic write up a newspaper report.

Lesson 11

Pupils use all the previous skills from this unit to create a newspaper report. This can form the basis for more than one lesson.

Unit 4e  
Modelling effects on screen

Unit 4e

This unit deals with comparing the floor turtle instructions to instructions used for a screen turtle. This unit also deals with simple programming.

Vocabulary

Procedure            repeat            pen up            pen down            clear

Resources

Floor turtle  
Superlogo program  
Graph paper

Assessment

All children will be able to create a shape on screen, making some mistakes but amending them.

Most children will be able to create a 'flower' using one shape and rotating it; using the repeat instruction to duplicate the shape; change the angle of turn.

Some children will be able to create 'flowers' using more than one shape and rotating them, by using repeat instructions they will duplicate these. They may also investigate more complex shapes and sizes and turns of angle.

Lesson 1