

Who Stole Dumbo?

Learning objective: *I can.....*

Finding Things Out

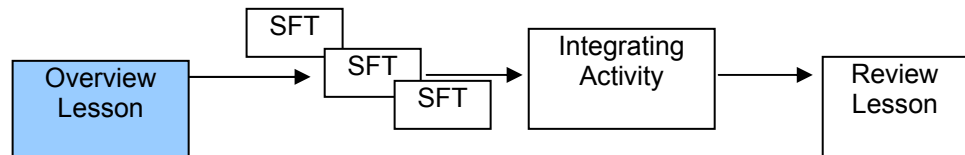
Year 3

Lesson 1 of 7

PoS 1a

Sort a set of printed cards.

QCA Unit: 3C



Resources

Clown images.pdf (These need to be printed out in colour. It is possible the school already has a colour set of these as they are the same as the clown images used as a support file in Snowball.)

Software you could use:

Support files:

Setting the scene: (5 mins)

Share the learning objective with the class.

Explain that this unit of work is going to help them learn about collecting and storing information, and that they will find out how a computer database can help us answer simple questions quickly and easily. Tell the class they are ultimately going to add to a database of information on animals, and use this to answer simple questions and create graphs.

Main Input (20 mins)

Away from the computer

Show the class the set of Clown images explaining that although the cards look similar, none of them are *exactly* the same. Some of them have some things in common such as the colour of their nose or the number of sequins on their hat but none of them are *identical* just as there are no two children in the class who are exactly the same. Therefore, each of the cards contains different information.

On a flip chart write down a list of the different types of information on the card:

Name, Height, Nose Colour, Hair Colour, Sequins on hat, Eye type, Emotion.

Using one of the images ask the class to identify the information on the card. For example Nippo's information is the following: Male, 187 cm tall, 2 sequins, sad, blue nose, blue hair and crosses for eyes. Record this information on the flip chart so it can be referred to next lesson.

Who Stole Dumbo?, (continued)

To allow the class to familiarise themselves with the information on each card, ask a series of questions with children holding up their card if it answers the questions.

Question examples:

- Who has a red nose?
- Who is male?
- Who has Yellow hair?
- Who is 177 cm tall?
- Who has star eyes?
- Who is taller than 180 cm? etc.

Activity – short focussed task (5-10 mins)

Dumbo the world famous flying elephant has disappeared! The police think that a crook pretending to be a clown has kidnapped him. They have some clues and the class needs to use the information on the cards to try and work out who the villain is.

When each clue is announced get the children to keep only those clowns who satisfy the criteria and put the rest in a pile in the middle of the table.

- **Clue 1:** After they discovered that the elephant was missing, one of the circus hands found a **green nose** on the ground near Dumbo's tent.
- **Clue 2:** On the night that Dumbo went missing one of the acrobats thought she saw a clown with **blue hair** creeping around the elephant's enclosure.
- **Clue 3:** When the clowns got together this morning to practice for tonight's show there was one missing. In his caravan they found a hat with **four sequins**.

Eventually there should be one card left, the villain! (Coco)

When you have located the correct card revise, with the children, the characteristics of that clown referring to the flip chart.

Review and recall (10 mins)

Bring the class together and review the learning objective. Ask similar questions to those below. Reiterate the key vocabulary listed below. Explain that in the next lesson they are going to think about how the clown information can be recorded in a more structured way that makes find answers to questions even easier.

Key questions to ask and to display:

What information did each card tell us? How easy was it to find answers to questions using these cards?
Could the information be presented in another way – that may be more organised and structured?

Vocabulary:

Information, organised, structured.

Teaching Points:

At this point you do not need to refer to the clown cards as records, or the information type as fields as this will be introduced next lesson with the record cards.

Who Stole Dumbo?, (continued)

Extension Activity:

Assessment Opportunities:

Can the children recognise different pieces of information within one clown image?
Can they children answer simple questions using the clown cards?

What comes next:

Organising and Structuring information – Lesson 2 'What's makes a record?'

What makes a record?

Learning objective: I can.....

Finding Things Out

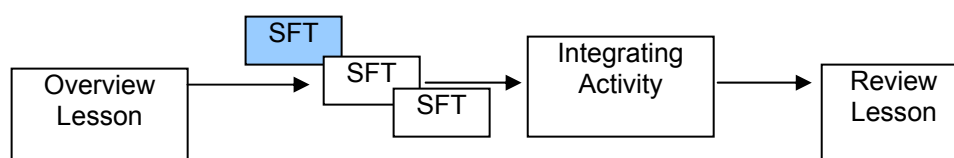
Year 3

Lesson 2 of 7

PoS 1b

Sort record cards by using field names and I can add information to a record card.

QCA Unit: 3C



Resources:

Sets of printed Clown Records.pdf – one set per group needed
Sets of Clown Questions.pdf – one per group needed
Copies of Black Records.pdf – enough for one per child.

Software you could use:

Support files:

Clown records.pdf , Blank Clown Records.pdf, Clown questions.pdf, Clown answers.pdf, Fieldnames of Clown.pdf and Clown images.pdf,

Setting the scene: (5 mins)

Share the learning objective with the class.

Explain that today they are going to look at how information can be recorded on '**record**' and will also have the opportunity to add some information to some record cards.

The next part of the lesson adopts a slightly different structure to other lessons we have provided. The altered structure is as follows: Main Input, Group Activity, Main Input and Individual Activity

Main Input (10 mins)

Away from the computer

Remind the class of the information on the Clown images. Refer back to the different types of information written on the flip chart in last lesson eg:

Name, Height, Nose Colour, Hair Colour, Sequins on hat, Eye type, Emotion.

Show the class a blank record card. Explain to them that this is called a '**record**' and the words on the left hand side that identify the different types of information are called '**fieldnames**'. The information that needs to be added is called the '**field**'

Using the information recorded last week on the flip chart about Nippo, look at his record card and see how this information has now been presented in a more organised and structured way.

Next show the class the print out from the 'Clown records.pdf' support file. Explain to the class that there are 6 record cards here and they make up a '**file**'. Now that this record card contains more text re-cap with the class which part is the '**fieldname**' and which is the '**field**'. Also highlight that the information recorded can be in

numbers, text or from a given choice. Go through the record card and identify which fieldname asks you to choose from a given choice, which requires numbers (i.e is numeric) and which requires text.

What makes a record?, (continued)

Finding Things Out

Year 3

Activity – short focussed task (5-10 mins)

In mixed ability groups the children are given a copy of the file containing the 6 record cards (clown records.pdf). In addition they are given questions which relate to these record cards. An example of the types of questions that could be asked is given in the support file – ‘Clown questions.pdf’ The groups are then given a strict time limit (e.g 5 mins) in which they attempt to answer as many questions as possible. At the end of the time limit collect in the answers and explain to the class that they will have an opportunity to share their answers and mark the sheets in the Review and Recall session at the end of the lesson. (Answers are given in the ‘Clown answers.pdf’ support file)

Main Input (10 mins)

Away from the computer

Using one of the Clown images demonstrate to the class how to transfer the information onto a blank record card. During the process recap with the children which field requires numeric information, which requires text and which gives you a choice to select your answer from.

As a class fill in one more of the Blank record cards using one of the other clown images.

Activity – short focussed task (5-10 mins)

Each child is now given a set time to transfer the information from the Clown image they are given on to their own Blank record Card.

Review and recall (10 mins)

Bring the class together and review the learning objective. Refer back to the Clown Question sheets, go through each question with the class and provide an opportunity for them to mark the questions. Whilst discussing the answer to each question reiterate the key vocabulary listed below. Finally ask questions similar to those given below.

Key questions to ask and to display:

What do we call a card that records information? (record card) A group of record cards is called a? (file)
We place our information into? (fields). Information can be recorded as.....? (Numbers/Numeric, text or from a choice)

Vocabulary:

Record card, File, Field, Fieldname, Numeric, Text, Choice.

Teaching Points:

Differentiation: The support file ‘Fieldnames of Clown.pdf’ has been provided to aide children who may experience difficulties accessing some of the text on the record card when filling in their record card. EMAG/EAL/SEN or children who experience difficulties recording text information could use an image to represent their answer on the record card. Eg a red circle to represent a red nose, triangles to represent triangular eyes etc.

What makes a record?, (continued)

This in itself provides an excellent discussion with the class as it is yet another way to record information on a record card.

Extension Activity:

Children can create their own questions from a given set of clown images.

Assessment Opportunities:

Can the children sort information by field names?
Can they add information to a record card?

What comes next:

Adding information to a database.– Lesson 3 'Bring in the Clowns'

Bring in the Clowns

Learning objective: *I can.....*

Finding Things Out

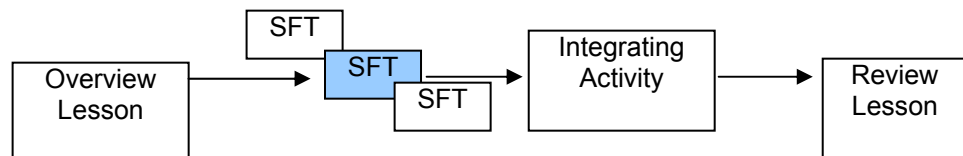
Year 3

Lesson 3 of 7

PoS 1b

Add information to a database

QCA Unit: 3C



Resources:

Software you could use:

Information Workshop

Support files:

Clown.iw2 and Clown images.pdf.

Setting the scene: (5 mins)

Share the learning objective with the class.

Explain that today they are going to look at a computer can store information and that information from a 'record card' can be recorded on the computer.

Main Input (20 mins)

Away from the computer

Recap with the children the vocabulary that they learnt in the last lesson: record, file, field, numeric, text, choice. Use the paper based record cards to highlight where these can be found and what they look like. Quickly discuss with the class how they went about transferring information from the Clown image onto the record card.

At the computer

Turn on the monitor and show the children how to open up Information Workshop and find the file they want to use, i.e 'Clowns.iw2'. Discuss with the class how this screen looks very similar to the paper record cards they have been using, and that what they see on the screen is also a record card, it is just stored on the computer instead of in a cupboard/filing cabinet etc. When lots of record cards have been filled in the computer will then store the file. This is called a '**Database**' – it is the area (base) at which all the information (data) is stored. Demonstrate to the class how they can navigate forwards and backwards through the records using the red arrows on the toolbar showing.

Highlight to the class how the only piece of information currently being stored is the Clown names and that they are going to be given the opportunity to add in the rest.

Using one of the Clown images demonstrate to the class how to fill in the record card on the computer:

- 1) Click on the pencil so that the record card turns mainly yellow. There will be a blue box/strip which denotes to the class which field where the information is to be added.
- 2) Click on the field 'Boy/Girl' which will now display the blue box/strip. This shows a grey box with a black arrow on the right hand side of the screen. Click on this and it will display the choices of words available

Bring in the Clowns, (continued)

- 1) for this field. Explain to the class that when this 'database' was being created on the computer someone put in the words that would be the choices now showing.
- 2) Click on the appropriate choice.
- 3) Highlight to the children that all but one of the remaining fields have words for them to choose from. The only exception is the Height field which requires them to put in a numeric answer.
- 4) For this field they will notice that the number they type in appears on the right hand side of the screen, but this will move to the left once they navigate to the next record.
- 5) Save the database with the new information so that it is 'stored'
- 6) Finally show them how to add a new record. (Edit > add record) so they can create a Clown of their own. Highlight to the class how the number of records showing in the bottom left of the screen has now increased.

Activity – short focussed task (5-10 mins)

Each child is given the opportunity to enter the information from the Clown image on to the appropriate record card on the database, and then to add a new record and create some information for their own personal Clown. Remind the class that they will have to first of all navigate within the database to find the record card which matches their Clown image. (If you are teaching in a Computer Suite please refer to the Teaching Points section of this Lesson Plan)

Review and recall (10 mins)

Bring the class together and review the learning objective. Show them the completed database and highlight how now all the records cards have all the appropriate information on them. Ask similar questions to those below. Reiterate the key vocabulary listed below. Explain that in the next lesson they are going to use a larger database to help them find questions to simple answers.

Key questions to ask and to display:

What is a set of record cards called when stored on a computer? (Database) Which icon do we need to click on to edit a record card? (Pencil) Is it easier/ quicker to record information on a computer based record card? What is the toolbar called that allows us to move between records?

Vocabulary:

Database, Edit, Navigate, Stored

Teaching Points:

If you are implementing this lesson in a suite you need to think carefully about how you are going to organise the session. If you have 1 or 2 children working at a computer then when they add in their clown information from the image you have given them the database will not be very full. In fact it will only contain the information of the 1or2 clowns they were given. There are 2 possible solutions to this depending on resources you have available:

- 1) The clown images are kept on a table and each child/pair is given a list of all the names. They will then collect an image from the table, add the information onto the computer, tick the name off of the list and then collect another to start the process again. You will need to make it clear to the class the time limit they have available for this as it is unlikely they will manage to do all of the clowns.
- 2) Use one computer and whilst another activity is going on children take it in turns to come up and put in their clown information. In this instance all the clown information will be stored on the one database

Differentiation: Some children may find it easier to input the information they have recorded on the paper record card instead of from the Clown image.

Bring in the Clowns, (continued)

Assessment Opportunities:

Can the children use the computer to add information to a record card stored on a database?

What comes next:

Performing Simple Searches.– Lesson 4 'Can you find...?'

Can you find...?

Learning objective: *I can.....*

Finding Things Out

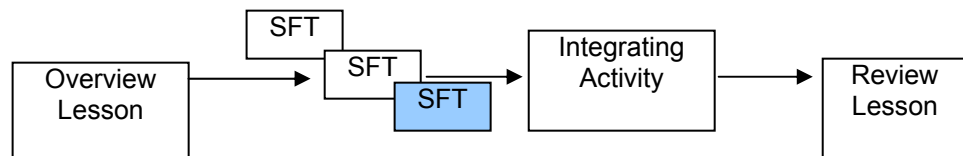
Year 3

Lesson 4 of 7

PoS 1b

Search a database to find answers to questions

QCA Unit: 3C



Resources:

Print out of record cards from Cards.pdf.
Visual aids from 'Information Workshop Visual Aids.pdf'
Copies of Simple questions.pdf

Software you could use:

Information Workshop

Support files:

Survey.iw2, Simple questions.pdf. and Simple answers.pdf

Setting the scene: (5 mins)

Share the learning objective with the class.

Explain that today they are going to look at a different file of record cards – both on paper and the computer, and that they are going to use the information on the cards to find answers to simple questions.

Main Input (30 mins)

Away from the computer

Show the class a record from the 'Cards.pdf'. Ask them to identify the fieldnames on this record. How many fieldnames are there? Which fields require numeric information? Text information? Which fields do they think might give an option of words? Distribute the record sheets from the file to the children and ask them to look carefully at their particular record. Choose a few volunteers to describe their person.

Ask the class a couple of simple questions:

Who has Sam's record?

Who has Kate's record?

Hold up all of the records for children with brown eyes

Now ask the class who would like to try and beat the clock. Choose one volunteer who is given all the record cards. Explain that they have 30 seconds to try and find all the records of children with blue eyes. Get the rest of the class to count down the time and encourage the volunteer to look through the record cards as quickly as they can. Once the time is up discuss with the class how easy, effective, organised this was. Was it easier when we were working together or when one person was trying to find the answer on their own? Explain that you are now going to show them how to do the same thing using a computer database.

At the computer

Turn on the monitor and remind the class how to open up Information Workshop and find the file they want to use. This time it is 'Survey.iw2'. (This datafile generally comes pre-installed in Information Workshop, but we have also provided it as one of the support files just in case it is needed) When the information about the datafile shows on the screen highlight to the children how this database actually contains more records than they were using on paper – but it would not have been manageable to have a larger number. (On the latest version of Information Workshop this can be up to 80+ records!)

Ask the children how the method they currently know of looking through records on a database. Using the Navigation toolbar is quite effective for some of the questions we were asking, for example finding Sam's record. We can just stop when we get to the right one. However it is not so good when we are trying to find all the children with brown eyes – as there is more than one of them.

Demonstrate to the children how we can perform a Search of a database to quickly find answers to our questions. For which children have brown hair the procedure is as follows:

- 1) Click on the 'eyes' icon on the toolbar. Explain to the class that the top box is where you select your 'fieldname' and the bottom one is where you select your 'field'
- 2) Click on the fieldname arrow and select 'hair'. Highlight to the class how once you have selected the appropriate field the computer changes the fieldname options
- 3) Make sure the option 'the same as' is selected with a black dot.
- 4) Click on the field arrow and select brown.
- 5) Click on OK.
- 6) A new dialogue box now appears to confirm your choices. If these are correct click on 'Start search'
- 7) The computer will now tell us how many records it has found and brings all the appropriate records to the front so that when we navigate through we see all the records which answer our question first.
- 8) Highlight to the children that the next time they click on Search the computer will display the last thing they searched for. Emphasis that it is important that they 'Clear all' first before beginning a new search.
- 9) Demonstrate this a second time but for children taller than 130cm. Highlight to the class how this time they must select 'greater than' instead of 'the same as'. Explain to them why this is the case.

Ask 1 or 2 children to come to the front and go through the process. Ensure one of these searches returns a value of Zero and explain that this is not a mistake, but that there were no records that matched the given criteria.

Activity – short focussed task (5-10 mins)

Each child is given the opportunity to perform simple searches to find the as many answers to the questions given on the 'Simple questions.pdf' file within the time limit set.

Review and recall (10 mins)

Bring the class together and review the learning objective. Call up some children to perform some of the simple searches required to answer the questions, any misconceptions can be addressed at this point. Ask similar questions to those below. Reiterate the key vocabulary listed below. Explain that in the next lesson they are going to use the same database to help them create simple bar charts.

Key questions to ask and to display:

Which icon helps us perform a search of a database? (eyes) Is it easier/ quicker to find the answers to questions using a computer? What is it important to remember to do before starting the next search?

Can you find...?, (continued)

Vocabulary:

Search, Clear all

Teaching Points:

Differentiation: Some children may find it difficult to access the text on the 'Simple questions.pdf' and may require additional adult support.

Assessment Opportunities:

Can the children search a database to find answers to simple questions?

What comes next:

Creating bar charts.– Lesson 5 'What's in the Charts?'

What's in the Charts?

Learning objective: *I can.....*

Finding Things Out

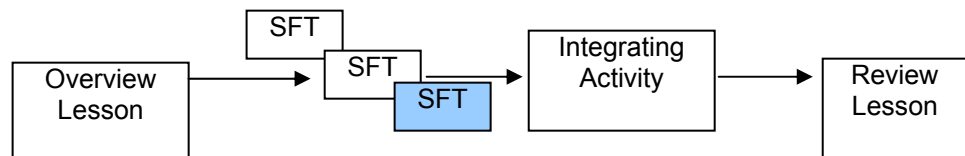
Year 3

Lesson 5 of 7

PoS 1b

Use a database to make a bar chart

QCA Unit: 3C



Resources:

Visual aids from 'Information Workshop Visual Aids.pdf'
Print out of Cards.pdf
Flip chart, Graph paper

Software you could use:

Information Workshop

Support files:

Survey.iw2 and Cards.pdf

Setting the scene: (5 mins)

Share the learning objective with the class.

Explain that today they are going to look at a how they can create a bar chart using the Survey database used in the previous lesson.

Main Input (20 mins)

Away from the computer

Distribute the record cards from 'Cards.pdf.' Ask the class who has blue eyes? Collect in these records, count them with the class, record the number on the flip chart and stack them up on top of each other. Repeat this process for all the other eye colours.

Explain to the class that we need to make a bar chart of our findings. Work through the process of deciding on axis, the scale of the axis depending on the maximum total, labeling the axis and then drawing the bars on the chart to represent the findings.

At the computer

Turn on the monitor and remind the class how to open up Information Workshop and find the file they want to use. Again it is 'Survey.iw2.' Demonstrate to the class where to find the Graph icon on the toolbar.

Explain that the window that now opens give us a choice of graphs that we might want to create. (See Information 'Workshop Visual Aids.pdf')

Choose the bar chart option.

In the next window we are asked to select the field we want. Highlight to the class that for this activity we are only going to choose a field from the 'First Field' option.

When we click on OK a complete bar chart is then displayed.

What's in the Charts?, (continued)

Ask 1 or 2 children to come up and go through the process.

Activity – short focussed task (10-20 mins)

In pairs or small groups children create a bar chart and print it off. They then have to think of three questions to display with their bar chart.

Review and recall (10 mins)

Ask groups to swap their graphs and questions and try and find the answers. Bring the class together and review the learning objective. Ask similar questions to those below. Reiterate the key vocabulary listed below. Explain that in the next lesson they are going to be using a database about animals. They will then add some additional information on the database and answer some questions using the search and/or graph options.

Key questions to ask and to display:

Is it easier/ quicker to find the answers to questions using a computer? Is it possible to graph any of the information in a bar chart? If not why not?

Vocabulary:

Graph, Bar chart.

Extension Activity:

To extend the more able children demonstrate how a search can be performed and then a graph made of these results. Eg you can create a bar chart showing the eye colour of just the girls by searching for females and then choosing eye colour from the field in the Graph facility.

Assessment Opportunities:

Can the children use a database to make a bar chart?

What comes next:

Integrating Task – A database on Animals.– Lesson 6 'Is it a bird? Is it a fish? Or is it...'

Is it a bird? Is it a fish? Or is it.....

Learning objective: *I can.....*

Finding Things Out

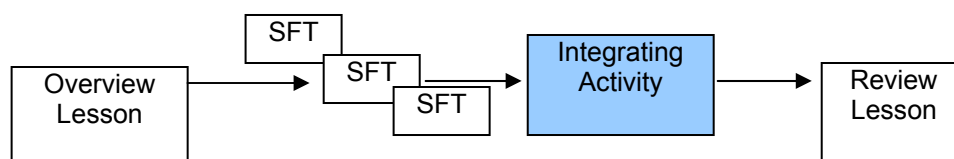
Year 3

Lesson 6 of 7

**PoS 1b
and 1c**

Use a database to sort and classify, and can present my findings.

QCA Unit: 3C



Resources:

Print out of animal images.pdf, and animal questions.pdf

Software you could use:

Information Workshop

Support files:

animals.iw2, animal images.pdf, animal questions.pdf and animal answers.pdf

Please note that a database of information on animals has been provided. However this lesson plan can be adapted to link with a Science unit the class may be covering which would benefit from using a database.

Setting the scene: (5 mins)

Share the learning objective with the class.

Explain that today they are going to use all the skills they have learnt in the last few weeks. They will be using a database called 'animals.iw2', which already has some information about animals stored on it. Their task will be to use the images you give them to add records and enter the relevant information into the database for those animals. After this they will then be given some questions that they need to try and answer using the database, which will also include creating some bar charts.

Main Input (10 mins)

Away from the computer

Distribute the animal images and briefly explain each card holds information in both textual and pictorial form. Do not help the class identify what information this may be as this is part of the activity described below.

At the computer

Turn on the monitor Ask a child to come to the front and open up Information Workshop and the datafile called Animals.

The class will be working in small groups for this activity and begin by asking them to discuss what information the database is asking for, by focusing on the fieldnames. Ask them to look at the images and as a group try and identify some of the information they will need to enter into the fields on the database.

Is it a bird? Is it a fish? Or is it, (continued)

Activity – integrated task (30-40 mins)

In mixed ability groups the children will access the database, add records and enter the information for the images you have given them. Once this is completed the group is then given the questions from the support file 'animal questions.pdf'. They must answer these questions by using the 'Search' and 'Chart' options of the program. The charts can be printed out and if time allows simply annotated by the group to describe what they did.

Review and recall (10 mins)

Bring the class together and review the learning objective. Ask similar questions to those below. Reiterate the key vocabulary listed below. Explain that in the final lesson they are going to be reviewing all they have learnt about databases this half term.

Key questions to ask and to display:

How did you know what information had to be added to the database? What option did you have to use to find the answers to the questions given?

Vocabulary:

Graph, Bar chart, Database, Fieldname, Field

Teaching Points:

It may be necessary to extend this activity over 2 lessons, to give children the opportunity to enter the information and answer the questions.

It is important to ensure children are given the questions from the support file 'animal questions.pdf' to answer as these require children to have entered the information from the images accurately.

Children may require some assistance in identifying the exact information required.

Children may need reminding that when creating these simple bar charts they must make sure there the Search criteria has been cleared, otherwise the chart will be created using just the records from the previous search.

This integrating activity will link it well with several Science and History units.

The support files with this unit of work also include 5 databases of Census information which can be used with Information Workshop.

Assessment Opportunities:

Can the children add a record to the database?

Can they identify and enter the appropriate information?

Can children search a database to find answers to questions?

Can they create a bar chart in a database?

What comes next:

Review Lesson - Lesson 7 'What's in a database?'

What's in a Database?

Learning objective: *I can.....*

Finding Things Out

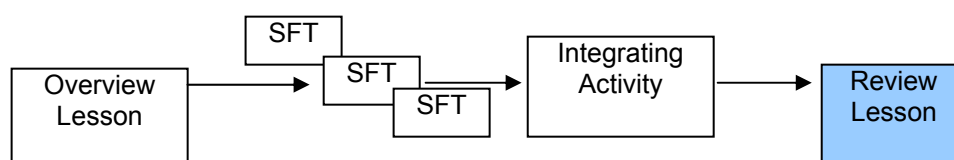
Year 3

Lesson 7 of 7

PoS 4a

Identify the key elements of a database.

QCA Unit: 3C



Resources:

Print out of Information Workshop Screen.pdf, and Database Vocabulary.pdf
Large Paper for display
Glue
Rulers

Software you could use:

Support files:

Information Workshop Screen.pdf and Database Vocabulary.pdf

Setting the scene: (5 mins)

Share the learning objective with the class.
Explain that today they are going to think about all the things they have learnt about databases this half term.

Main Input (10 mins)

Away from the computer

Show the class the print out of 'Information Workshop Screen.pdf' and explain that they are each going to have a copy of this. Explain they will also be getting pieces of paper with the Key Vocabulary they have been using. They must stick the screen print out in the middle of the large piece of paper and then decide where each of the Key Vocabulary pieces of paper must go. Emphasise to the children it is important that they decide where all the pieces of paper go before they begin sticking as they might want to change the position slightly. Once they are happy with the placement of all the pieces then they must stick them around the outside of the screen shot, and use the ruler to draw a line to the exact place on the screen shot.

Activity – review task (20-30 mins)

Children work in pairs or mixed ability small groups to complete the task which can then be displayed with the rest of the ICT work of the half term.

Review and recall (10 mins)

Bring the class together and share the work they have created, reiterating the key vocabulary. Review the learning objective. Ask similar questions to those below.

What's in a Database?, (continued)

Key questions to ask and to display:

What have we learnt about databases? How does a database organise information? In which ways does a database make it easier to find answers to questions?

Vocabulary:

Graph, Bar chart, Database, Fieldname, Field, Records, Navigation, Edit

Teaching Points:

Ensure the organisation of the groups provide support for those children who may experience difficulties accessing the text.

Extension Activity:

More able groups or those who work faster can annotate the Vocabulary further, e.g what is a database? What does the Search option help you do?

Assessment Opportunities:

Can children identify the key elements of a database using the vocabulary provided?

What comes next:

Unit 4C – 'Branching Databases'

Unit 4D – 'Collecting and presenting information – questionnaires and pie charts'