EMAG
Ethnic Minority Achievement Grant

Guidance document 9

COLLABORATIVE LEARNING
IN THE CLASSROOM
January 2005

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COLLABORATIVE LEARNING ACTIVITIES

What are collaborative learning activities?

Collaborative learning activities are structured tasks that are designed to be tackled by groups of pupils. They are often set up as problems relating to sorting and organising information. The purpose of these activities is to oblige the pupils to explore and understand the nature of the subject content by encouraging them to think and talk together. In this way pupils are supported in activating their existing knowledge and experience and in making links with the new knowledge they are acquiring.

Collaborative learning activities encourage pupils to:

- Be active inquiring learners
- Access cognitively demanding texts and concepts
- Develop thinking and language skills
- Interact constructively with their peers
- Relate their own experiences (cultural and linguistic) and knowledge of the world to the curriculum

They encourage teachers to:

- Analyse and plan learning tasks more rigorously
- Design group activities which are interactive and which provide visual and contextual support
- Link curriculum content with language and literacy development
- Observe and evaluate pupils’ learning
- Activate and build upon children’s prior knowledge and experience.

Principles

In the 1980s a number of collaborative learning activities were developed through partnership teaching, which involved mainstream and Section XI\(^1\) staff. These activities were originally designed as a means of enabling pupils with limited language or literacy skills to participate fully in the mainstream curriculum. They encourage such pupils to be active learners while they are developing their language and literacy skills. The strategies were seen to be successful not only for the targeted pupils who were learning English as an additional language but for all pupils since they often increased pupils’ motivation, confidence and self-esteem, encouraged the development of supportive social skills and increased access to the curriculum by developing language and reading skills in context.

The activities are not intended to replace teacher-led learning by resource-based learning, nor are they intended to leave pupils entirely to their own devices. Rather, they provide a framework for pupils and teachers to work together on the learning process. They complement teacher interaction with the whole class by providing pupils with the opportunity to verbalise their thinking in small groups. Different groupings can be used according to the nature of the content and the task, although randomly mixed groups of pupils often seem to work better than self-chosen friendship groups.

\(^1\) Section XI is now called EMAG (Ethnic Minority Achievement Grant)
The following diagram outlines four possible teaching styles within a classroom:

**Quadrant A** - Typically the ‘traditional’ talk and chalk approach in which the teacher transmits knowledge to passive pupils

**Quadrant B** - Typically the resource-based, worksheet-led approach in which pupils work independently through a series of written activities

**Quadrant C** - Typically the child-centred progressive discovery approach to learning in which pupils carry out self initiated tasks in an independent way

**Quadrant D** - Typically an active learning approach in which pupils engage in structured tasks. This encourages extensive pupil-pupil and teacher–pupil interaction.

Learning activities typical of Quadrants A, B and C may be appropriate at various points in a series of lessons. There is a place for whole class instruction and questioning as well as worksheets and pupil initiated activities. However, it is only activities in Quadrant D that can provide the kind of interaction necessary to enable students who use EAL to be active users and learners of language. Collaborative learning activities are designed to structure this kind of integrated approach to learning content and language.
Language, Learning and Bilingual Pupils

Many bilingual pupils easily acquire a functional level of fluency in English in a relatively short time, say 1-2 years. By the end of this time they can fulfil most of their social needs, chat in the playground, etc. What this apparent fluency may mask is their need for continued focused language development across the curriculum. As curriculum content becomes more abstract and demanding through the various key stages, the language for understanding and expressing understanding also becomes more complex and demanding. It also becomes more formal and dependent on literacy skills.

This means that the pupil’s apparent fluency in English is not necessarily adequate for engaging with the curriculum. Because of this it is helpful to distinguish between two broad categories of language use:
- the ‘social’ and everyday use of language which tends to be spoken, face to face, and well contextualised
- the ‘academic’ use of language which tends to be more formal, abstract and written.

Collaborative learning activities are useful for helping pupils to move from their social fluency in English to the acquisition of academic English.

A problem for teachers working with pupils who are still in the process of acquiring academic English is to provide tasks that are cognitively demanding and yet appropriate to the pupils’ levels of proficiency in English. There is danger that pupils will find tasks either too simplified and undemanding or too inaccessible because of the complex language involved. Teachers need to exhibit high expectations of pupils without ‘throwing them in at the deep end’ and risking the pupils losing confidence or motivation due to lack of success.

Collaborative learning activities provide curriculum-based opportunities for pupils to use language in situations that provide both support and scope for experimentation and practice. They should not be seen as games, diversions or fillers, but as a way of organising and enabling learning. The context that is provided by the activity allows pupils to move from the familiar to the unknown and from the concrete to the abstract. By working together on cognitively demanding tasks, pupils are encouraged to develop higher order thinking skills and the consequent language functions that are necessary to articulate such thinking.

One of the main objectives of collaborative learning activities is to get pupils to interact verbally with each other. The materials are catalysts that cause pupils to talk to each other about the particular topic content. In order to do this the activity and the materials need to be sufficiently challenging. If the task is too simple there will be no need to apply a degree of thought in order to complete it and subsequently there will be no need to ‘talk’ about the content.

This booklet outlines three broad types of activity which can oblige pupils to interact purposefully with each other.

- **Information gaps**
- **Information organising activities**
- **Game-like activities**.
**INFORMATION GAPS**

Information gap activities are ones in which a pupil has some information that other pupils need and in turn requires information that other pupils have got. For example, Pupil A has a 4 by 2 grid drawn on a piece of paper. On the grid, four of the cells have different shapes drawn in them. Pupil B has a similar grid but has different shapes in cells where Pupil A has no picture and does not have shapes in the other four cells. Pupils A and B ask and answer each other’s questions to find out what shapes will accurately complete their respective grids but without showing each other their papers.
You can create other kinds of information gap activities

1. Pupil A has a complete sheet of pictures or shapes and pupil B has to listen to descriptions and draw the objects.
2. Pupil A has one large picture and describes it for pupil B who has to draw it.
3. Pupil A and B both have similar pictures but with some differences. By asking and answering questions they have to find out the differences between their pictures.
4. Pupil A has a table about the size, colour and feeding habits of six animals. However, pupil A is missing some information that pupil B has and pupil B is missing information that pupil A has. By asking and answering questions they can both complete the graph.
5. Pupil A has a picture that is coloured in but Pupil B only has an outline drawing of the same picture. Pupil A has to describe the colours and pupil B has to listen and colour the picture in.
6. Pupils A and B both have maps of the same area but both have pieces of information missing. Pupil A is missing some information that B can provide and pupil A can supply missing information to B.
7. A group of pupils look at a large picture with a variety of objects on it (perhaps a zoo picture with animals on). One pupils thinks of an object, the others have to ask Yes/No questions to find out which one it is.

In all these cases the gap is bridged by purposeful listening and speaking.
Information gaps can be used with a wide variety of charts, diagrams and maps e.g.:

**Average Rainfall and Temperatures for Nottingham, UK**

In this activity Pupil A has the information for alternate months starting with January
Pupil B has the information for alternate months starting with February.

**Pupil A**

<table>
<thead>
<tr>
<th>Average rainfall in centimetres</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
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This activity could also be used with charts showing temperature and a wide range of other charts, etc.
A variation on this activity is to give pupil A a set of pictures and pupil B a complementary set of different pictures. Both pupils can then be given a common table to complete. Of course in order to complete their tables the pupils will need to ask and answer questions about each other’s pictures. For example, Pupil A and B could have pictures of various minibeasts. The table could have headings such as name, number of legs and number of wings,

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of legs</th>
<th>Number of wings</th>
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In the same way this technique can be applied to texts as well as visual material. Pupil A can have a text which has half the information and Pupil B a text which has the rest of the information. If they then have a common set of questions, table, chart or diagram they can again complete their task by asking and answering each other’s questions.

In the same way this technique can be applied to texts as well as visual material. Pupil A can have a text which has half the information and Pupil B a text which has the rest of the information. If they then have a common set of questions, table, chart or diagram they can again complete their task by asking and answering each other’s questions.

Any of these activities can be designed so that instead of a two-way information gap there can a three- or even four-way gap. The following is an example of a four-way text information gap. Each pupil is given a text and an answer sheet. They will find that they can answer some of the questions on the sheet but not all of them. However, by working with three other pupils (each having different texts) the pupils can complete their information and help the others to complete theirs. This will of course involve a considerable amount of reading, asking questions, giving answers and annotation.
Marcus Garvey

A

Marcus Garvey

Marcus Garvey was born on 17th August, 1887.
When he was sixteen, he left St. Ann's and went to
Kingston where he found a job in a printing office.
He joined the printer's Union and took an active
part in trade union affairs.

In 1914, after spending some time in England, he
returned to Jamaica determined to start a
programme which would help the black people of
Jamaica and the world to have a better life. He
formed the Universal Negro Improvement
Association (UNIA) which aimed to unite 'all the
Negro peoples of the world to establish a country
and Government absolutely their own'. However,
he did not get many members in Jamaica and he
got into trouble for saying that Jamaica should be
governed by black people.

In 1927 he toured the Caribbean and Central
America and lectured to the crowds who gathered
to hear him speak. He also went to London and
Paris to hold large meetings.

B

Marcus Garvey

Marcus Garvey was the youngest of a Jamaican
family of eleven children. In January, 1907, Kingston
suffered a huge earthquake. The destruction and
fires which followed the earthquake led to terrible
food shortages and high prices. The printer's Union
went on strike for higher wages. When the strike
finished most workers went back to their jobs, but
Garvey was sacked because the employers thought
that he was the leader of the strike.

In 1914, Marcus left Jamaica again and went to the
U.S.A. There he found that the black people were
often living in even worse conditions than the black
people in Jamaica. He decided then that the best
thing for black people would be for them to go back
to Africa. Therefore, he started his 'Back to Africa'
plan by setting up branches of the UNIA all over
America. He toured America making speeches to
crowds of people and by 1919 the UNIA had more
than two million members.

C

Marcus Garvey

Marcus Garvey was born near St. Ann's Bay,
Jamaica. He left school when he was fourteen and
trained to be a printer in St. Ann's. While he was
learning to be a printer, a terrible hurricane struck
Jamaica and his family lost their home and all their
possessions.

In 1910, Garvey left Jamaica and travelled in
South America where he found that many black
people lived in even greater poverty than in
Jamaica.

In 1912, Garvey sailed to England where he met
students and sailors from India and Africa and
learned about their countries. He decided that
the only way for black people to be treated fairly
was for black people to have their own countries
and governments.

In 1922, Garvey spent three years in jail in
America and was then sent back to Jamaica.

D

Marcus Garvey

Marcus Garvey's father was a mason by trade, but
there was never enough work for him and so the
family had little money. Garvey's mother baked
bread and cakes to make extra money to feed the
family.

Soon after he lost his job in a printing office,
Garvey started a newspaper called 'The
Watchman'. The aim of the newspaper was to draw
attention to improve Black people's conditions. The
newspaper did not last long and it had to close
because of lack of money.

In 1919, he started a shipping business called the
Black Star Line. Only black people were allowed to
contribute money to the business to buy ships. In
1920 the Black Star Line ran into financial
difficulties. Garvey was arrested for fraud and
was tried in court. He was found guilty and
sentenced to five years in jail.

In 1935 he left Jamaica again and sailed to England
because he felt that it was pointless for him to
stay in Jamaica any longer. He died in poverty in
London in 1940.

8
Question sheet.

Marcus Garvey's ideas and actions have influenced many people who, like him, have resisted injustice and inequality. His lifelong struggle to promote the welfare and interests of Black Peoples meant that there were many people opposed to him and his activities. As a result he faced many difficult situations and had to endure many setbacks and unfair treatment.

These are the facts about the main events in his life.

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1.</td>
<td>Where and when was Marcus Garvey born?</td>
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<td>2.</td>
<td>How many brothers and sisters did he have?</td>
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<td>3.</td>
<td>Why didn't his family have much money?</td>
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<td>4.</td>
<td>What did he train to be?</td>
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<td>5.</td>
<td>What happened as a result of the hurricane?</td>
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<td>6.</td>
<td>What happened in January 1907?</td>
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<td>7.</td>
<td>How did Garvey lose his job?</td>
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<td>8.</td>
<td>What was the aim of the newspaper he started and what happened to it?</td>
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<td>9.</td>
<td>Where did Garvey go in 1910 and what did he find?</td>
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<td>Where did he go in 1912 and what did he decide?</td>
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<td>11.</td>
<td>What did he start in 1914?</td>
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<td>12.</td>
<td>Where did Garvey go in 1916?</td>
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<td>13.</td>
<td>Why did he start his 'Back to Africa' plan?</td>
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<td>14.</td>
<td>How did he make his 'Back to Africa' plan popular?</td>
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<tr>
<td>15.</td>
<td>What did he start in 1919 and what happened to it?</td>
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<td>16.</td>
<td>Why was he arrested and what happened to him?</td>
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<td>17.</td>
<td>How long did he spend in jail and where did he go after that?</td>
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<td>What did he do in 1927?</td>
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<td>19.</td>
<td>What did he do in 1928?</td>
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<td>20.</td>
<td>What happened in the Jamaican election in 1930?</td>
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<td>21.</td>
<td>Why did he leave Jamaica in 1935 and where did he go?</td>
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<td>22.</td>
<td>Where and when did he die?</td>
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</tbody>
</table>

When the pupils have finished making notes on the answers, they can use their notes to write their own version of the text which will of course be different from any of the original four texts because it will effectively combine information from all of them.
JIGSAW GROUPS

Another form of information gap is when the class is organised into jigsaw groups. In this case a class of 24 children can be initially divided into four groups of six. If the class was studying the Key Stage 2 unit on ‘Earth and Space’ and the topic was “The Solar System” for example, one group would be given an information text about two of the planets. The second group would be given information about another two planets and so on.

The pupils in each group have to work together and use the texts to find out the information necessary to complete a table like this.

<table>
<thead>
<tr>
<th>Name of planet</th>
<th>Diameter in km.</th>
<th>Distance from Sun in million km.</th>
<th>Number of hours in a day</th>
<th>Number of months in a year</th>
<th>Surface temperature in degrees Celsius</th>
<th>Atmosphere</th>
<th>Number of moons</th>
<th>Gravity in Newtons per kg.</th>
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Each pupil in the group has to complete their own copy of the table because in the next stage of the activity they will need to take their information to a new group.

The new groups are number groups e.g. Group 1, Group 2 etc. This ensures that each new group has an expert on the different pairs of planets.
The pupils in the new groups can then complete the rest of their table by asking and answering questions about the planets. In this way they will have found out and shared a great deal of information.
INFORMATION ORGANISING ACTIVITIES

These activities usually involve pupils in organising pieces of information in a variety of ways. Organising information may involve:

- Matching
- Sequencing
- Sorting
- Rank ordering

…or a combination of these

Basically pupils are given small units of information which when organised and structured in the right way reveal the ‘whole picture’. For example, pupils may be given a timeline that only shows the time units (e.g. years) and a number of cards that describe events e.g. (Neil Armstrong and Buzz Aldrin walk on the moon.). The pupil’s job is then to arrange the cards in the correct places on the timeline. The question is how the pupils know where to put the cards? If the cards have the appropriate date on them then the task becomes very simple. However, if the pupils have to use an information source, such as a set of clues, then the task becomes more demanding and will involve the use of reading, thinking and probably listening and speaking as well. As a group task it encourages ‘thinking aloud’ and a kind of talk where pupils put forward ideas and use talk to ‘work things out’.

The example below uses a timeline and clues. The activity is about advances in ‘home technology’ in Britain since 1948. The clues relate to a fictional family ‘The Wilsons’ and provide information about when the various generations of the family acquired the domestic appliances on the cards. Before the pupils get the clue cards they can ‘predict’ where the appliances go on the timeline. This is useful for observing what pupils already know and think about when these appliances became available.

| gas cooker | The pupils can arrange these cards on the timeline, using the clues to help them. |
| vacuum cleaner | There are four different clue cards so that in a group of four, each pupil gets their own clue card. This also encourages participation of all members of the group and avoids either pupils opting out or one or more pupils dominating the activity. The clues have some definite references e.g. |
| cassette tape player | Mr. and Mrs. Wilson got a freezer in 1971 |
| freezer | However, most of the clues are cross-references e.g. |
| video player | John and Kathy got a video player two years after they got the microwave oven. This means that pupils need to pool their information and it leads to asking |
| fridge | “Who’s got something about the microwave?” |
| food mixer | In this way asking and answering and thinking aloud become an important means of working out the solution. |
| stereo record player | colour television |
| microwave oven |
Mr. and Mrs. Wilson got a gas cooker in 1950.

Mr. and Mrs. Wilson got a washing machine two years before they got the black and white television.


John and Kathy got a mobile phone ten years after they got the microwave oven.

Mr. and Mrs. Wilson got a colour television two years after they got the stereo record player.

Mr. and Mrs. Wilson got a fridge four years after they got the gas cooker.

John got a transistor radio for his 17th birthday.

Mr. and Mrs. Wilson got a freezer in 1971.

John and Kathy got a mobile phone ten years after they got the microwave oven.

John and Kathy got a dishwasher four years before they got a mobile phone.

John and Kathy got a video player two years after they got the microwave oven.

Mr. and Mrs. Wilson got a stereo record player the year after they got a freezer.

John bought a cassette player in 1970.

Mr. and Mrs. Wilson got a stereo record player the year after they got a freezer.

John got a personal cassette player for his 40th birthday.

Mr. and Mrs. Wilson got a food mixer in 1964.

Sarah got a Nintendo for her 10th birthday.

Mr. and Mrs. Wilson got a black and white television two years after they got the electric kettle.

Mr. and Mrs. Wilson got a stereo record player the year after they got a freezer.

John and Kathy got a CD player three years after they got a video player.

Mr. and Mrs. Wilson got a personal computer in 1994.

Mr. and Mrs. Wilson got a vacuum cleaner the year before they got the fridge.

Mr. and Mrs. Wilson got an electric kettle eight years before they got the food mixer.
There are four distinct aspects to this activity;

- The activity type: it is a sequencing activity
- It uses a key visual (in this case it is a timeline)
- It sets ‘the content’ in a particular context. In this case, the context is a particular fictional family
- It uses an information source (in this case it has clue cards)

This is a sequencing activity and so the thinking and language around it will involve items such as;

“Did this one come before this one?”
“Which one came after that one?”
“What happened before they got that one?”
“When did they get that one?”
“How much after that one did they get this one?”

**Key Visual**

The ‘key visual’ used in this activity is a timeline. The timeline when completed with the cards becomes a graphic package of information. As such it not only communicates information (when particular events happened) but also shows the relationship in time between events in a visual way. Key visuals are therefore forms of graphic information such as tables, charts, diagrams, Venn diagrams, flow charts, tree diagrams etc.

**Context**

Rather than using generalised content about home appliances, the activity sets the content in the context of a particular family. Generalised content would have to be expressed in more tentative ways e.g.

*By the mid 1960s many families owned a transistor radio.*

as opposed to the particular

*John Wilson got a transistor radio in 1965.*

This means that the language and content are more accessible because they are more definite. When the activity is completed the pupils can then use the timeline to create general statements about home technology such as;

*During the early 1960s many families began to get food mixers and black and white televisions for their homes.*

In this way the pupils can move from the specific to the general and therefore from specific statements to generalisations.
Information source

This activity uses clue cards (which describe aspects of the Wilsons’ lives) as a means of enabling the pupils to work out the correct solution. Information sources can come in a variety of forms:

- A text or set of texts
- A text book
- Reference books
- A pamphlet
- A set of clues
- A listening text
- A video
- A teacher exposition
- Pupils’ own knowledge, experience and logic.
- A poster

What is most important is that there is a match between the kind of thinking / language required to understand the content, the activity type and the key visual. For example, if the content to be studied requires classifying, then a sequencing activity and a flow chart would be inappropriate. On the other hand, a sorting activity which uses a branching diagram would be appropriate for classifying.

The table below shows a generalised match between types of thinking, types of activity, key visuals and examples of curriculum content

<table>
<thead>
<tr>
<th>TYPE OF ACTIVITY</th>
<th>TYPE OF THINKING</th>
<th>KEY VISUALS</th>
<th>EXAMPLES OF CURRICULUM CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequencing</td>
<td>sequence, ordering chronologically using units of time, measuring time, sequences of cause/effect, instructing, describing processes, narrating</td>
<td>time line, action strip, life cycle, flow chart</td>
<td>Events leading up to the Battle of Hastings. How milk is processed. “Rosie’s Walk” (story) The Water Cycle</td>
</tr>
<tr>
<td>Matching</td>
<td>cause and effect defining, describing features / properties / functions</td>
<td>tables, charts, diagrams, maps</td>
<td>Parts of the eye and their functions The major regions and cities of Italy</td>
</tr>
<tr>
<td>Sorting</td>
<td>classifying, defining, applying criteria, generalising</td>
<td>branching diagram, table, spider diagram</td>
<td>Vertebrate groups. Types of settlement Properties of quadrilaterals</td>
</tr>
<tr>
<td>Ranking</td>
<td>rank ordering, choosing, evaluating, applying evaluation criteria.</td>
<td>target diagram, diamond nine rating chart etc.</td>
<td>Reactivity of metal elements What kind of exercise increases your pulse rate most? What are the biggest countries in the World (by area/population)?</td>
</tr>
</tbody>
</table>

15
Planning and designing activities.

Activities need to be carefully planned if they are to be effective. Time and thought at this stage will reap benefits in the classroom. On-going evaluation of the materials in use will also improve their effectiveness.

- The first thing is to think carefully about what you want the pupils to learn. Being clear about this will make the process much easier. Collaborative learning activities are not ‘add on’ group work activities at the end of lessons; they are an approach to structuring the pupils’ learning.

- Next it may be useful to visualise the structure of the subject content in a diagrammatic form. The following chart shows some key questions that will help with planning.

<table>
<thead>
<tr>
<th>What content do you want the pupils to learn?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What kind of thinking is required to explore the content?</td>
</tr>
<tr>
<td>How can this content be graphically represented as a key visual?</td>
</tr>
<tr>
<td>How can the content be contextualised and made more particular than general?</td>
</tr>
<tr>
<td>What language is needed to express the meanings contained in the key visual?</td>
</tr>
<tr>
<td>What information source is required to enable the pupils to carry out the activity?</td>
</tr>
</tbody>
</table>

Making the link between the kinds of thinking involved in a topic and the language which can express the thinking is also very helpful. Doing this can allow you to explore the language demands of the task and the opportunities for language learning that can be included in an activity. The table below shows some examples of how different types of thinking can be expressed verbally.
<table>
<thead>
<tr>
<th>Type of thinking</th>
<th>Examples of language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparing</td>
<td>Alligators breathe in air whereas sharks breathe in water. Sodium is more reactive than magnesium. Jamaica is bigger than Antigua.</td>
</tr>
<tr>
<td>Chronological</td>
<td>After Henry divorcing Catherine of Aragon, Henry married Ann Boleyn. In the next stage the milk is heated to 72 degrees centigrade for 15 seconds. Then it is cooled quickly. Until the Industrial Revolution, most people lived in the countryside and farmed the land.</td>
</tr>
<tr>
<td>Cause and effect</td>
<td>The sun heats the sea water and therefore it evaporates. The mud left by the flood water made the land more fertile. The invasion of Poland led to the declaration of war.</td>
</tr>
<tr>
<td>Classifying</td>
<td>A rhombus is a kind of quadrilateral. Crocodiles belong to the reptile group. Leicester grew because of its importance as a market town.</td>
</tr>
<tr>
<td>Evaluating</td>
<td>Smaller cars use less petrol and produce less pollution. Although Henry VIII was a popular King, he did not rule England very well. The experiment would have been more successful if we had used a more accurate method of measuring the volume.</td>
</tr>
<tr>
<td>Generalising</td>
<td>Most reptiles lay eggs. The majority of people in London use public transport to get to work. Science fiction stories are usually set in the future.</td>
</tr>
<tr>
<td>Defining</td>
<td>A thermometer is an instrument used for measuring temperature. An isosceles triangle has two sides that are equal. A noun is the name of a person, place or thing.</td>
</tr>
<tr>
<td>Narrating</td>
<td>First he ate a slice of watermelon and then he ate a piece of cheese. We added a spoonful of salt to the beaker of water and watched to see whether it dissolved. The coach arrived at nine o’clock and by ten past nine we were ready to leave.</td>
</tr>
<tr>
<td>Instructing</td>
<td>Make a circuit with one battery, a bulb and a switch. Draw an equilateral triangle. Add the milk to the bowl and mix thoroughly.</td>
</tr>
<tr>
<td>Describing</td>
<td>Mansfield is located ten miles to the north of Nottingham. Henry was rather vain and was fond of fine clothes. The River Soar joins the Trent near …</td>
</tr>
</tbody>
</table>
**Game-Like Activities**

These activities are useful for re-cycling and consolidating information. They usually take the form of some kind of board game such as a track game or a “connect four”. Here are two examples. The first is a connect four and the second is a track game.

<table>
<thead>
<tr>
<th>Materials Connect 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is tough</td>
</tr>
<tr>
<td>It is transparent</td>
</tr>
<tr>
<td>It is hard</td>
</tr>
<tr>
<td>It is rigid</td>
</tr>
<tr>
<td>It is soft</td>
</tr>
</tbody>
</table>

Prior to this activity the pupils will have carried out another activity to explore the properties of the materials these objects are made out of and they will have recorded their observations on a tick chart. This activity therefore aims to consolidate their learning about properties.

One pair of pupils has the yellow cards while the other pair has the blue cards. Each pair shuffles the cards and places them face down on the table. The yellow pair then take the top card from their pile, turn it over and place it on an appropriate space on the board. The blues then have their turn.

The winners are the pair which make a line of four of their cards (across, down or diagonally). It therefore becomes important not to put your cards on the first appropriate place you find but to think about where you can put them to block your opponents and build your line of four cards.
Track Game

Prior to this activity the pupils will have carried out a matching activity.

The idea is that they take it in turns to roll a die and move their counter in any direction they choose. When their counter passes through a rectangle they can collect a card with the name or picture of whatever organ is located there. In the rectangle is a description of location. From the description, they have to work out which organ (or pair of organs) it is they can collect. In order to collect it the pupils have to record the name, location and function in writing. They do this in the form of a complete sentence such as:

“Because I have ........ which is / are located ........I am able to ..........”

The aim of the game is to collect all or as many organs as you can in the allotted time and to see who has collected the most. Those who have not collected all of the organs by the end of the game can fill in their missing items with the assistance of those who have.
Some practical hints on using the activities in the classroom

- Pupils work together on activities in groups of two or more. The size and make-up of the groups will depend upon the nature and purpose of the task.

- If your pupils are unused to working together collaboratively it may be helpful to introduce such work gradually. Start with short tasks in pairs before attempting larger random groupings. Some attention to developing group work skills (active listening, turn-taking, encouraging, paraphrasing etc.) will prove beneficial.

- Self-chosen ‘friendship’ groups of pupils often do not work very well. There may be too much ‘friendly’ consensus (sometimes called ‘groupthink’) which will discourage the exploration of new lines of thought or alternative ideas. In addition to this, there may be a lack of task focus which will result in inconsequential chat.

- Many activities work well with mixed-ability groups of four or five. There are several techniques for achieving random groupings ranging from giving each pupil a number or colour according to the number of groups you want to divide your class into and they have to find the other pupils with the same colour/number, to a more language based activity where pupils have to find the matching parts of a word, sentence, picture or character in order to form a pair or group.

- Activities may serve different purposes at different stages of the learning process. For example, they may function as a useful starter activity for a topic or a revision activity at the end of a topic. They may also be used as main learning activities within a topic.

- Once the pupils are engaged in the activity the teacher’s role is simply to monitor the learning and support the pupils by using questions and comments to draw attention to key issues and help them to clarify their thinking.

- Sometimes the most difficult task for many teachers is to stand back and allow pupils to struggle with the task until they succeed; the temptation may be to over-help the pupils rather than “support” them in the process of learning.

- Photocopying materials onto different coloured card is useful for managing sets of cards. Storing sets in zip-up plastic wallets or press top plastic bags keeps sets complete and discrete.

- It is extremely useful to monitor how well the activities work so that the materials, strategies and techniques can be adapted to match pupils' abilities and needs more closely.