

Here are some ways to carry out your learning. Mix and match from the three columns.

With

- Yourself – work on your own
- A partner
- Others in a small group

By

- Reading
- Notemaking
- Testing a hypothesis
- Following instructions
- Collecting and analysing data
- Observing
- Peer teaching
- Watching
- Making
- Debating
- Modelling
- Listening
- Questioning
- Thinking
- Imitating
- Visiting
- Imagining
- Dancing
- Interviewing
- Exploring
- Meeting
- Dramatising
- Trialling
- Surveying
- Reflecting
- Evaluating
- Discussing
- Corresponding

Using

- TV
- Books
- Magazines
- Internet
- Photographs
- Family
- Your teacher
- Video tapes
- Journals
- Telephone
- Online course
- Experience
- Your own imagination
- Visitors
- Newspapers
- CD-ROMs
- Audio tapes
- School library
- Distance-learning materials
- Radio
- Friends
- Video conferencing
- Visits
- Public library
- Other teachers
- Neighbours
- Primary source documents
- The mail
- Other pupils' work
- Objects
- Pictures
- Computer
- Experts
- Models
- Pamphlets
- Study guides
- Your environment
- Worksheets
- Museum

Here are some ways of presenting your learning. Make choices based on what best suits the nature of what you've learned, your own learning style, and the assessment requirements.

Newspaper
 Illustrated booklet
 Project
 Lecture
 Seminar
 Video recording
 Audio recording
 Mime
 Hot seat
 Still images
 Dance

Lead a discussion or debate
 Posters or wallcharts
 Essay
 Exhibition
 Puppetry
 Song
 Overhead projector presentation
 Game
 Contribute to discussion or a
 debate
 Model

Teach a lesson
 Diagrams
 Radio show
 Flowchart
 Key-word plan
 Storyboard
 Lead a visit or field trip
 TV show
 Interview
 Poem
 PowerPoint presentation

Information Hunt

The simple and uncomfortable truth is, the more you find things out and work things out for yourself, the more it sticks. Hunted information is much more memorable than information received on a plate.



How?

1. Students are commissioned to find out information about the topic in hand. Each student is supplied with a Fact Finder sheet.
2. For younger students this could be in the form of a Hunter's Map giving locations in the classroom (and beyond – the further afield the better) where certain types of material can be found. The materials (posters, photographs, books, artefacts, CD-ROMs, people ...) enable the students to solve riddles that entitle them to a crack at the "treasure chest key question". It's important that there be a variety of information sources, not all the same type, otherwise the exercise can become tedious. Or, again for younger students, it could be in the form of a nine-, twelve- or sixteen-square bingo grid with questions in the boxes (the aim being to get a line, then a full house). For older students the sheet would be a more regular matrix to fill in or a standard question-and-answer sheet.
3. Whatever the style, the idea is to find accurate and complete information against the clock. Students have to organise themselves.
4. At any point in the proceedings students can come to the teacher to check how they are doing. The teacher will tell them which answers are acceptable and which need more detail or need to be redone. Of course, checking with the teacher takes precious time, especially if there's a queue. So the decision to check or not to check adds a bit of tension to the exercise.
5. As soon as someone has a full set of answers/has opened the treasure chest/has a full house, or as soon as time is up, the activity stops and the teacher and class go over the

Purposes (what the activity is designed to achieve)	
Thinking	*****
Emotional Intelligence	*
Independence	****
Interdependence	*
Multi-sensation	** (variable)
Fun	**
Articulation	



Particulars (what elements the activity contains)	
Individual work	****
Group work	** (variable)
Moving about	****
Speaking	*
Listening	**
Reading	****
Writing	***
Looking	***
Choice	*



Specific room layout	
Yes	<input type="radio"/> No



Applications

- Any subject as long as the teacher can organise a sufficient range of resources.
- **Modern foreign languages:** the exercise is conducted entirely in target language.
- **Science:** the resource stations can be mini-experiments to carry out.
- **ICT:** conducted entirely on line to help students master the Internet.

Why do it?

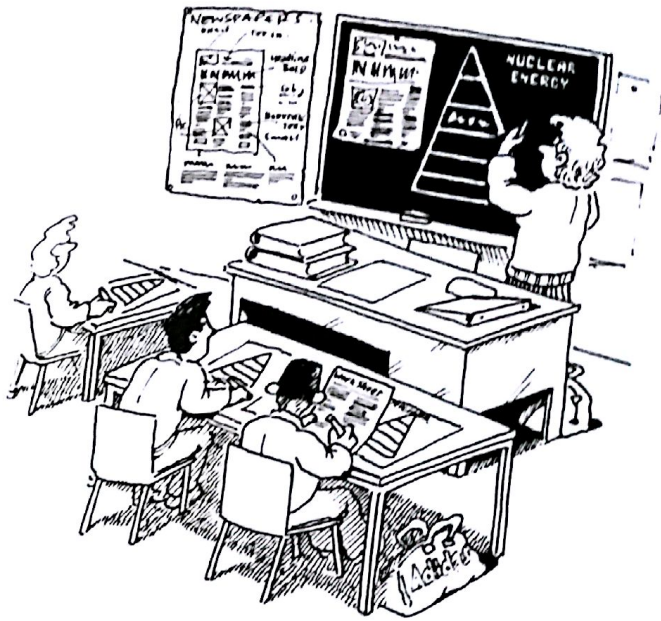
- It is designed to practise a number of independent learning skills: working to a deadline; using a range of resources; identifying key points within a resource; recording information quickly; answering questions precisely; having confidence in your own judgment; working with others (where that option is taken).
- It has a kinaesthetic element, moving around, which is important to some students and keeps them on board.
- It demonstrates that learning is more fun and more effective, and that the information is remembered far better, when resources are tackled actively, rather than passively received.

Variations

1. Students work in pairs or small teams rather than individually. This practises the added dimensions of group organisation and interdependence.
2. Instead of managing the operation, the teacher can be one of the resources, perhaps operating in role.
3. The information sources are other students. Everyone has a bingo grid where the boxes contain prompts such as "Find someone who can show you how to ...", "Find someone who can explain ...", "Find someone who has done ...", "Find someone who knows about ..." and so on. Students write the information and the student's name in the box so that cross-checks can be made by the teacher. The rule is: you can't have the same name more than once. This "human bingo" works well in **modern languages**, where the questions and responses are entirely in target language.
4. Number the sources of information. Students have to tackle them in order but all start with a different number to avoid congestion. This cuts down the independence of the exercise, and also the teacher's stress levels.
5. Students work in small groups. Each group receives a pack containing a range of source materials. In this variation students don't have to go and consult the materials: the materials have come to them. From the materials, groups have to answer a set of questions or fulfil a more open-ended brief, such as: "Find out as much as you can about French weddings", or "What can you find out about employment in North Wales?"

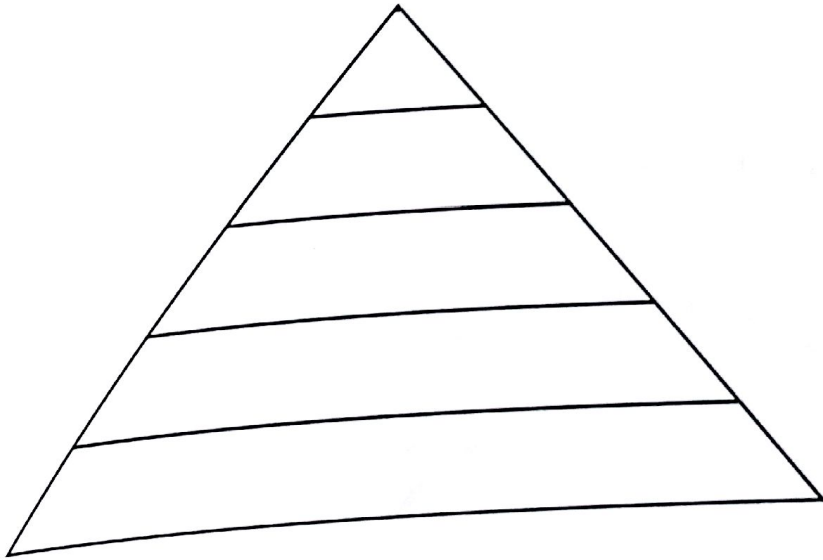
Hierarchies

More or less all nonfiction text is made up of hierarchies. Spot them, use them and you'll soon rise to the top.





How?


1. Each student draws a page-sized pyramid.



2. Explain that most nonfiction text is made up of hierarchies of information and that finding the hierarchies provides the structure for good notes. Show how newspapers make hierarchies explicit through the use of headlines, bold paragraphs, subheadings and smaller print. Well-written textbooks present information in a similar way. But not all texts are so helpful and it's up to students to detect the status of information in order to separate major from minor points.
3. Give out a nonfiction text appropriate to the topic in hand and to the reading ages of the students. While the "Hierarchies" technique is being learned, it's important that the vocabulary and syntax are not too difficult.
4. Ask students to find the big idea in the text: the headline. They write this in the apex of the pyramid.
5. Students then work out the next level of information – the main points – and note them in the next "layer" down.

Purposes (what the activity is designed to achieve)	
Thinking
Emotional Intelligence	
Independence
Interdependence	
Multi-sensation	
Fun	•
Articulation

Particulars (what elements the activity contains)	
Individual work
Group work	
Moving about	
Speaking	
Listening	•
Reading
Writing	...
Looking	•
Choice	

Specific room layout	
Yes <input type="radio"/>	No <input checked="" type="radio"/>

6. Finally, the details are written into the base of the pyramid. The shape encourages students to recognise that there is usually one big idea, two or three main points and lots of detail.
7. Ask students to memorise the material by covering up different layers, attempting to recall what they contain, then looking to check. In time, they should be able to work just from the higher layers which prompt the recall of detail.

Applications

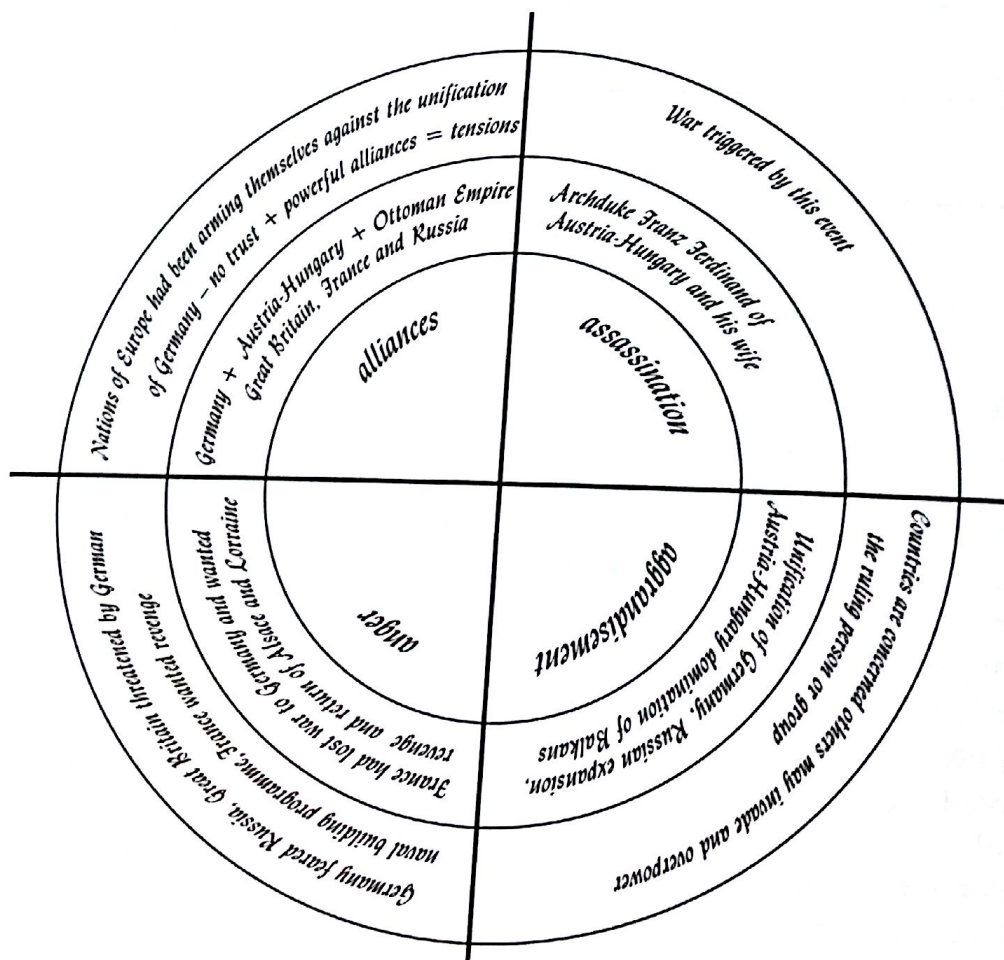
- Use with almost any **nonfiction** material.
- With **fiction**, use "Hierarchies" for character studies, interpretations, critiques and summaries.

Why do it?

- Passive reading is inefficient – the brain takes little in. For text to be understood, the material needs to be attacked with an active and purposeful mind. Deep learning occurs through understanding, not rote. Exercises such as this force understanding.
- The brain's neocortex is designed to work things out for itself, so this exercise goes with "the grain of the brain". Although taxing, the exercise should feel natural, especially if presented as a mystery to be fathomed or a challenge to be met.
- So much independent learning rests on the student's ability to deconstruct text and make useful, efficient notes. This exercise, if done often enough in different guises, helps to break the habit of copying or condensing text, and to establish the habit of discerning note making.
- Exam success depends on effective revision. Material has to be visited and revisited several times. This is much less daunting if notes are already in handy, revision-friendly formats.

Variations

1. Experiment with different shapes. For example, Target Notes:

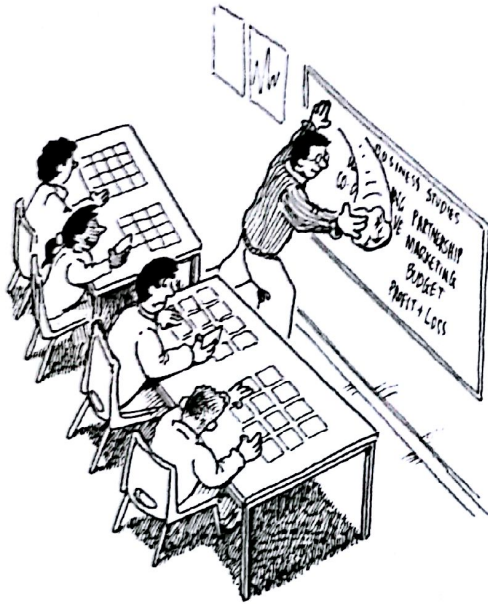


Take the causes of World War One. There are generally reckoned to be four causes: alliances, assassination, aggrandisement and anger. Each of these four headline words goes in a quarter of the bull's-eye. In the next layer out go key points. Take alliances, they were between Germany and Austria-Hungary, later joined by the Ottoman Empire; on the other side Great Britain, France and Russia. In the outer layer go the details of how these alliances contributed to the heightening of tension. For other topics, adjust the number of sectors as appropriate.

2. Instead of (or even as well as) shapes, use different colours for different "levels" of information.
3. Instead of text, ask students to work out the hierarchies of information within an **audio** cassette, a **video**, an **exposition** by the teacher, a **presentation by their peers**, or even a **diagram** in a book. Ideal as a listening exercise in **modern languages**. "Hierarchies" provides a way of focusing attention and sharpening the challenge in what might otherwise be quite "flat" tasks.

Hide 'n' Seek


"Seek and ye shall find" - this is one sure way not to lose your memory.





How?

This is a basic memory technique, the foundation of many variations. When they first use it, students are often delighted that learning occurs as if by magic.

1. Supply to each student, or students each make for themselves, a pack of small cards, about the size of business cards.
2. On one side of the cards students write the items to be learned, one per card, and on the reverse their meanings or definitions.
3. Each student lays their cards out on the desk face up. The meanings/definitions are face down.
4. Ask students how long they think it will take them to turn all the cards over. The procedure is: look at a card, give its meaning or definition in your head, then turn it over to see if you are right. If you are, you turn the card over. If not, you leave it face down and can't return to it until you have been round all the other cards. You can turn a card over only when you have given the correct meaning or definition.
5. Of course, learning occurs effortlessly at the point where the offered answer in the student's head is compared to the answer on the back of the card.
6. Once all the cards are turned, ask students to reverse the process. How long will it take you to turn them back again?

Purposes (what the activity is designed to achieve)	
Thinking
Emotional Intelligence	
Independence
Interdependence	
Multi-sensation	.
Fun	...
Articulation

Particulars (what the activity contains)	
Individual work
Group work	
Moving about	
Speaking	
Listening	
Reading	...
Writing	.
Looking	...
Choice	

Specific room layout	
Yes <input type="radio"/>	No <input checked="" type="radio"/>

Applications

- Modern foreign languages: vocabulary.
- History: dates, significance of key events and policies.
- Science: formulae, diagrams of apparatus, technical terminology.
- Maths: symbols, rules, conventions.
- PE: names of muscles and bones.
- Art: key features of artists' styles.
- Music: musical genres and examples of works, instruments from around the world.
- Geography: weather graphs and climate names.

Why do it?

- It's a very efficient and natural way of memorising hard information.
- It teaches the students an invaluable technique that can apply to many subjects.
- It thereby adds to their repertoire of independent learning skills.
- It helps students to realise that success can be achieved with a little effort and a little fun – it creates motivation for future learning.

Variations

1. Use pictures, diagrams or symbols on one side, words on the other.
2. To aid memorisation use different colours of card for different aspects of the topic: e.g. different parts of speech in **English** and **modern foreign languages**; positive and negative consequences of the Norman invasion in **history**.
3. Students can put the pack in an envelope, and they then have a ready-made revision aid to use at home.
4. Encourage students to make further packs for other topics; set pack-making homeworks.
5. Strengthen the level of challenge by getting students to set time targets for themselves. Then encourage them to beat their best time for turning a whole pack over.
6. Ask students to work in pairs. They put two identical packs together, one face up, the other face down. The cards are shuffled randomly around the desktop, and then they take turns to match pairs. When a pair is successfully matched, the player keeps it and goes again, and again until a mismatch is made. The player with the most pairs at the end "wins".

Discussion Carousel

A device for getting everyone to take part in productive, if not circular (!) discussion.



How?

1. Clear the desks.
2. Have the group sitting on chairs in two concentric circles, an "outer" and an "inner", of equal numbers. The inner circle faces outwards and the outer circle faces inwards. In other words, everyone is facing a partner.
3. The facing pairs are given a prompt and have a conversation for, say, three minutes. They are asked to make sure that each has a chance to speak. The teacher lets them know when it's half-time.
4. When the time is up, the outer circle stands and spins round (more accurately shuffles round) to the left until the teacher says stop. Students now sit down, facing a new random partner.
5. Before the new pair launch into *their* conversation, developing the subject further, each has to summarise to the other their **previous partner's** contribution. Listening skills to the fore!
6. Once again, when time is up, the outer circle "spins" and new pairs are formed. Students have to summarise both their first and second partners' contributions before conducting their third conversation.
7. This may be repeated as many times as is useful.

Applications

- Useful for any type of discussion. The discussion could be very academic: an A-level question; formulating a precise definition of a technical term or phenomenon; constructing a model paragraph answer to a GCSE question; planning a method to test a hypothesis.
- Use it to revise a topic or to find out what people already know before a new topic is begun.
- Use it to evaluate products (in **technology**, for example), or to evaluate the learning process itself.

Purposes (what the activity is designed to achieve)	
Thinking	****
Emotional Intelligence	**
Independence	**
Interdependence	***
Multi-sensation	**
Fun	***
Articulation	****



Particulars (what the activity contains)	
Individual work	*
Group work	****
Moving about	**
Speaking	****
Listening	*****
Reading	
Writing	
Looking	
Choice	



Specific room layout	
<input checked="" type="radio"/> Yes	<input type="radio"/> No



- It is a way of "broadening the mind" whenever matters of opinion are to be discussed (in English, religion, health, history). It prepares for argumentative writing.
- Use it to help students formulate their own opinions with a degree of privacy. It helps them gain confidence before taking part in an open whole-class discussion or formal debate.
- It can be used to air class opinion about a matter of common concern, for example what to do about bullying, as part of PSHE or school council business.
- "Discussion Carousel" can be conducted in a modern foreign language.

Why do it?

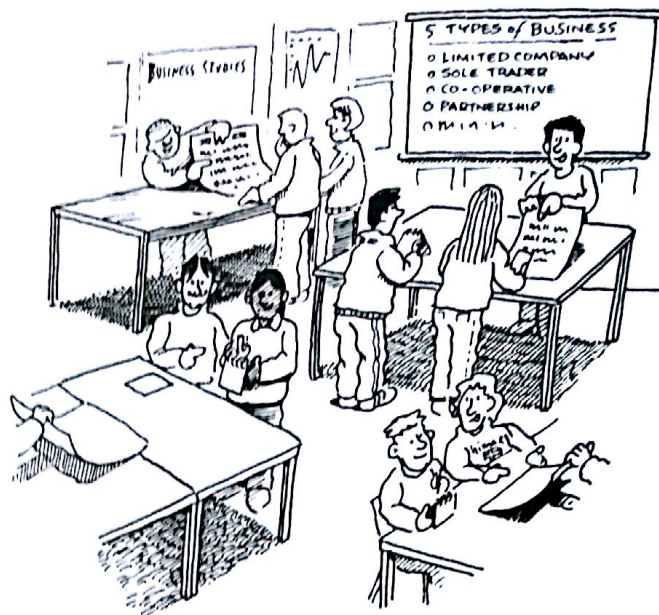
- Creates maximum participation – half the class is talking at any one moment.
- Enables each student to hear a range of opinion quickly.
- Practises listening skills.
- Encourages empathy.
- Gets students used to working with others at random, which is likely to make group work easier in the future.
- Deepens individual students' thinking by making them test it out on others.

Variations

1. If the students are nervous and have poorly developed listening skills, they can be allowed to take notes on what their partners say as an aide-mémoire. This is a stage to grow out of quite quickly, though.
2. To give everyone a chance to move, at changeover times, have both circles "spinning", but in opposite directions.
3. If it's not possible or desirable to move the furniture, have shuffling lines or slinking snakes around the classroom. The principle intention is to randomise pairings.

Marketplace

Commerce in the classroom? In the information trade, a little hustle and bustle is a small price to pay for getting the goods.



How?

This exercise is conducted through a series of strictly timed stages. The number of stages, and the timing of each, will vary according to the topic, the complexity of the material and the readiness of the students. Here's a typical example.

Students work in groups of three (fours are too big for this). Allocate a subdivision of the topic to each group and give them resource material on their subdivision only (one copy per person). The material should be mainly text. Also give each group a large piece of sugar paper (or flipchart paper) and three or four differently coloured thick felt pens.

Four or five subdivisions of the topic usually work well. In a regular class there will be ten or more groups, so give out each subdivision twice, to different groups in different parts of the room.

Write up the sequence and timing of stages on the board or overhead projector so that students can follow the exercise easily.

Have a gong or bell or buzzer to signal the start and end of each stage. Occasionally during the Stages, let the students know how much time is left.

Stage 1 (1 minute)

Show the students the learning objectives and the test that they will take later. It's a good idea to use an overhead projector for this. Give them just a minute to read through the test, then switch off. They are not allowed to take notes. Make sure they understand that they will sit this test under exam conditions, without reference to any materials, or anybody, at Stage 5.

Purposes (what the activity is designed to achieve)	
Thinking	*****
Emotional Intelligence	***
Independence	*****
Interdependence	*****
Multi-sensation	***
Fun	***
Articulation	****

Particulars (what elements the activity contains)	
Individual work	**
Group work	*****
Moving about	*****
Speaking	*****
Listening	*****
Reading	****
Writing	****
Looking	****
Choice	**

Specific room layout	
<input checked="" type="radio"/> Yes	<input type="radio"/> No

Stage 2 (15 minutes)

Each group converts the resource material for its subdivision into a visual display, a "poster", using the large paper and pens. The poster must be designed for visitors to view and understand (at Stage 3). The poster can have *up to ten words and no more* (adjust according to the material, but don't let them have too many words or the activity will be spoiled). The group is encouraged to use as many numbers, diagrams, symbols, pictures, graphs, cartoons, sketches and initial letters as it wishes, but not more than ten words. Abbreviations (e.g. "coop" for "cooperative") count as whole words. The group collaborates on this, making sure that everyone in the group understands the material and contributes to the "poster". If necessary, give each member of the group a different colour of felt pen and expect to see all three colours in the final product.

Towards the end of this stage, issue each group with its *minimum requirements*. These are the precise details to be included on the poster that will ensure that visitors get access to the right information for the test. The minimum requirements can simply be questions taken from the test that are relevant to each group's material. For example: "As a minimum make sure that your poster gives the answer to these questions ..."

Stage 3 (10 minutes)

By now each group has only a fraction of the information needed for success in the test. So groups have to learn from each other. In preparation, each group has to decide which one of its members will stay home and be its "stallholder". The others will go out into the "marketplace" to gather information. The stallholder touts for business by calling out the title of his group's subdivision, so customers can find their way around. The stallholder explains the poster to visitors, but is allowed to *answer only questions asked by visitors*. The researchers who go out into the marketplace will need to visit all the other subdivisions of the topic. They have to organise themselves to get the job done within the time limit, so they might decide to divide up the labour and operate individually. They should all take notes so that they can teach their group effectively at Stage 4. Their job is to look at other groups' posters, try to work out the ideas and information portrayed and ask the stallholders questions for clarification, explanation and expansion. If they have enough time, they should go to other versions of the same subdivision to cross-check information.

Stage 4 (10 minutes)

Everyone returns to their home base. Those who went into the marketplace to research information should now take turns to teach what they found out. It is an opportunity to clarify understanding. Students can run back to look at posters again or to ask quick questions in order to check details. The aim is for everyone by the end of this stage to be ready for the test. Even though they won't be able to use them in the test, encourage all group members to make notes – seeing and doing, as well as hearing, helps information to stick. During this stage distribute test papers, face down, to each group in preparation for Stage 5.

Stage 5 (10 minutes)

All notes, posters and original source materials are put out of sight. The test is conducted under examination conditions, individually and in silence.

Stage 6 (5 minutes)

In each group, students now put their heads together to see if they can come up with a complete and accurate set of answers between them. It's important that they did *not* know about this stage at the beginning.

Finally, the teacher goes through the test, focusing on questions that groups generally found difficult. For each of these tough questions the teacher asks volunteers to have a go at the answer. Then, as a last resort, the teacher teaches! In this way gaps are filled and holes are plugged.

Applications

Any topic that can be subdivided

- **Business Studies:** different types of business: sole traders; partnerships; joint stock companies; cooperatives; public-sector industries. Different theories of motivation: Herzberg; Maslow; McGregor; Taylor.
- **English:** different stanzas in a poem; different chapters; scenes; novels; characters; parts of speech; writing styles.
- **Technology:** assessing different materials; evaluating different products; comparing designs.
- **Maths:** revising different topics; learning new procedures and methods.
- **History:** examining a range of causes for the French Revolution; studying different interpretations of a character or event; comparing and assessing various primary and secondary sources; assessing various consequences of an event.
- **GNVQ leisure and tourism:** the relative attractions of different European holiday destinations.
- **ICT:** different software programs and applications.
- **Geography:** the causes and/or effects of urbanisation; different cities; different climate and natural vegetation zones.
- **PE:** inventing and sharing different games; demonstrating different warm-ups; different muscle groups; different drugs.
- **Drama and dance:** different interpretations from the same stimulus.
- **Art:** the essential characteristics, with examples, of different movements in the history of art; different artists; different painting techniques.

Why do it?

- By asking students to represent information using limited words, they are forced to understand the material.
- The exercise works with the "grain of the brain" by asking students to see patterns and make connections. This suits the neocortex down to the ground.
- We know that peer teaching is effective. Students are required to articulate and rearticulate material several times over, by which time it should have gone in!
- The exercise gives students a transferable model for notemaking – identifying key words, using a nonlinear layout and a range of symbols.
- The exercise encourages the use of visual intelligence, which supports those students who do not function well with words, and challenges those who do.
- It builds the skills of independent learning, including: time management; working with and through others; handling a range of resources; selecting information; asking the right questions; verbal and visual presentation techniques; memorising; handling pressure; operating under exam conditions.
- The exercise creates a model of interdependent citizenship.

Variations

1. Use it for revision rather than to learn new material.
2. Instead of a question-and-answer test at the end, there might be a task. For example, to write a report or essay, to make a series of key-word plans, or to make a product.

Section 2: Tools for Teaching and Learning

3. Instead of reprocessing source material given by the teacher, groups might prepare posters to explain their idea for a design, or solution to a problem, or experiment, or research method, or series of movements in dance. At Stage 4, students are not frantically trying to teach each other facts and concepts, but are explaining other groups' ideas and discussing which one they think is best.
4. Instead of allowing students to mill around the marketplace deciding their own route in their own time, use a more structured approach. Move students round in a circus from one stall to another at set intervals.
5. Sustain the activity over a series of lessons. Groups might take two or three lessons to research their material from a range of resources; they might take a whole lesson to prepare their "stall", which will be more than a simple poster but might have an audio recording, photographs, or a laptop PowerPoint presentation. This extended version works well at A level and advanced GNVQ.
6. Students set the questions for their part of the test. These are then checked, and if necessary refined, by the teacher.