

## Section 2: Differentiation in practice in the curriculum

### Using differentiation to achieve pace and variety

Differentiation is about teaching and learning styles and teachers should be using all three types of differentiation in order to have a variety of teaching approaches to accommodate the different learning styles in the classroom. As has been outlined above, teachers who only organise in the 'ability group' way are limiting the learning of many pupils in their classes, particularly those with special educational needs. All pupils should experience all three types of differentiation in order for teachers and pupils to maximise the teaching and learning that occurs in the classroom.

The best way to meet pupil's different learning needs is to deliver the curriculum in a number of different ways; to differentiate the vehicle by which the skills, knowledge and concepts arrive, as well as presenting a range of tasks. The reason for doing this is because it ensures the maximum amount of pupil involvement, ie pupil planning, pupil assessment and pupil decision-making. In fact, the three can be fitted into a logical progression of teach, practice and assess:

- differentiation by classroom organisation is a way of helping pupils to access knowledge, increase understanding, develop concepts and practise skills
- differentiation by paired task is a way of helping pupils to self-assess, peer assess, target set and practise skills to reach targets
- differentiation by outcome is a way of both accessing knowledge and experiences and assessing at the end of the teach and practise cycle.

*'The key to the differentiated curriculum is the flexible use by teachers of a wide range of activities and lesson organisations.'*

Janet Spillman, 1991

Teachers can use any approach to differentiation and in any order, so long as they get started. All the ideas presented in this pack have two purposes: for immediate use in the classroom and to stimulate discussion.

The activities in this pack provide examples of all three types of differentiation. By examining these ideas, teachers can assess which forms of differentiation they already use and which steps or methods to try next in order to increase their repertoire of curriculum delivery styles. The activities centre around the core subjects of English, Mathematics and Science. They are offered in the format outlined above – differentiation by paired task, outcome and classroom organisation. In this way, teachers can try out all the approaches and will start to experiment applying the ideas offered for one part of the curriculum to other areas.

## Teacher planning

One of the rules that should be operated is the 80-20 rule. Usually when differentiating by task in the 'old way', the teacher does 80% of the work and the pupils do 20%. Look for ways of changing that round so that the pupils do 80% of the work and the teacher does 20%. This makes teachers less tired; pupils more engaged and less dependent.

If, for example, you want a pupil to do a cloze exercise on the topic you have just finished, rather than writing this yourself get them to devise a cloze exercise on this topic for younger aged pupils who know nothing about this topic. As well as saving time for the teacher to get on and teach, this method increases motivation, self-esteem and learning for the older pupil. After all, teachers come to understand their topic better as they teach it.

This method of approaching the planning of the curriculum can help to offset the extra planning and preparation which teachers may feel daunted by when faced with the suggestions for workshops in differentiation by outcome, or the skills training in differentiation by classroom organisation.

The time and effort invested in planning and organisation is well worth it. It means that your role as a teacher changes dramatically. Instead of answering questions about pencils, margins, dates and other presentation/getting started issues, you will be either observing and assessing the pupils, or engaged in discussions with the pupils about their conceptual development.

## Sharing the outcomes and criteria with the pupils

In this pack the outcomes rather than the aims for each activity are identified. This is deliberate as identifying and sharing the outcomes is a crucial part of differentiation and effective teaching. Pupils often know the task but do not understand why they are doing it. This means they cannot show off their learning. A helpful way of doing this is to write on the whiteboard a description of where the pupils should be and what they should be able to do if they have 'finished'.

Proforma 1 (page 93) is an example of a planning sheet for teachers. This could then be used as a guide as to what to write on the board for the pupils. It may be that there is only one aspect of learning that will be focused on in the lesson; it may be that all four will be visited – it does not matter. What matters is that the teacher prioritises the learning before choosing an activity and allows the pupils some choice in arriving at the learning objective.

The teacher assessment sheet Proforma 2 (page 94) and the assessment form for the pupils Pupil sheet 10 (page 86) are two ways in which the teacher can assess the impact on the pupils of the sharing of the learning objectives and the differentiation of the curriculum.

The activities outlined below tend to use the 'Three-part lesson approach', ie 'Focus, Do, Review'. A 50-minute lesson is assumed in each of the following activities. This may be closer to a 'double' lesson in some schools. If you have 35-minute lessons then do shorter main activities but still use the three-part lesson.

## Science activities

Topic: Respiration

Year: 8

Learning objectives:

- To be able to describe the way the air enters our bodies when we breathe, using the correct terminology, and the way it goes around the body and out again.
- To know the reasons for respiration.
- To understand the ways in which the lungs work when breathing.
- To understand the principles of gaseous exchange in respiration

Lesson 1

Learning objectives:

- To be able to describe the way the air enters our bodies when we breathe, using the correct terminology, and the way it goes around the body and out again.
- To know the reasons for respiration.

Focus:

In random pairs, using the key words to be learnt in this topic (see Pupil sheet 11, page 88) to get into random pairs. Organise the pupils to sit facing each other and to take it in turns to share what they know about breathing, ie the air going into the body and out again.

Provide pairs with an outline of the top half of the body – one outline between two (using Pupil sheet 12, page 89). Ask the pairs to label the diagram with as many key words as they can to describe the breathing process. Point out that there are clues in the room in the form of keywords for the pair cards. Tell pairs to join with another pair to make a four and to explain their diagram and add anything that they think they have learned from the other pair.

Invite fours to contribute to a board drawing at the front to explain their thinking. Ask them why they think we need respiration.

This activity allows the teacher to ascertain previous knowledge, understanding and recall of keywords. It will become apparent how much is general knowledge in the group and how much is one or two people.

Do:

- Tell the pupils that they will need to be able to both label a diagram and explain the breathing process for the end of module test.
- Provide a number of books in the room.
- Working with the partner from the other pair in the four, ask the pupils to collect some more specialist words from the resources to ensure that they have collected all the keywords that they will need to explain the breathing process.

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- Tell them they can record the keywords in whatever way they choose.
- Collect on the 'board' diagram the new or extra words that they have found. Ask the contributors to explain their word also.
- Provide them with the list of keywords used for the pairs exercise at the end of this exercise.

### Review:

Put the pupils in new random pairs – using a number method to work together to mentor each other and decide how they are going to remember the keywords to describe how the air goes round the body in the breathing process. Tell them that they will need to explain to 'others' in the class next lesson.

### Lesson 2

#### Learning objectives:

- To be able to describe the way the air enters our bodies when we breathe, using the correct terminology, and the way it goes around the body and out again.
- To know the reasons for respiration.

#### Focus:

Set up the lesson so that each pair has to come to the front and explain the breathing process to the satisfaction of the others. The class has to be as critical as possible and to keep asking for clarification. They are to mark each pairs' attempt.

From this exercise the teacher should be able to judge how far away the class is from all of the pupils knowing all of the keywords and being able to use them to explain.

Set a challenge for them that is based on competitive, co-operative groups. They are to practice telling their partner the breathing process ready for a written test and the table with the highest marks will get a reward. Give the pairs some time to mentor one another in the cues they will use to remember how to spell these keywords.

#### Do:

- Understand the reasons for respiration.
- Have new pairs brainstorm the reasons they can think of for respiration.
- Review the learning in the group.
- There will probably be some reference to energy.
- If there is not, try to get the pupils to consider the purpose of respiration in other living things.
- Set up a number of experiments for the pupils to do to measure breathing, pulse and heart rate and energy levels.

#### For example:

- sit-ups in timed intervals
- running on the spot in timed intervals
- push-ups in timed intervals.

## The place of differentiation in special needs provision according to the Code of Practice 1994

