

Craft, Design and Technology for Children having 'Special Educational Needs'

Introduction

I have taught CDT at a Comprehensive School to children of all abilities. My recent experience has involved teaching CDT to children categorised as being maladjusted and also to children who have 'mild' and 'moderate' learning difficulties. From my experience I am convinced that CDT should have a significant role in the curriculum for those children described as having 'special educational needs' by the Warnock Report (1978) and the 1981 Education Act. In particular I have been interested in identifying the specific aspects of the subject which might be most useful.

The concept of 'Special Educational Needs' stems from the Warnock Report (1978) which was the first ever report to enquire comprehensively into the education of the handicapped.

In 1977 the extent of those children requiring and being given 'special education' was about 1.8% of the school population in England and Wales, this represented approximately 176,000 children. Warnock recommended that the concept of 'special provision' should be expanded. This decision was based on the findings of the Isle of Wight Study (1964-65) a study which investigated the incidence of intellectual and educational retardation, psychiatric disorder and physical handicap. Warnock (1978) stated therefore:

'That about one in six children at any time and up to one in five children at some time during their school career will require some form of special educational provision' (3-17 (p.41).

This wider concept clearly expanded the previous idea of special educational provision and was meant to absorb other aspects of school provision, such as remedial departments which were not previously thought of as being 'special education'. The report highlighted those children who need some kind of additional help, most of whom are already in the mainstream of education.

My interest in the idea that CDT can be of special importance for children with SEN has shown that the subject is not being exploited as much as it should be for the benefit of such children. This seems perhaps to be because of other pressures, such as the constant strive to make the subject more acceptable for the brighter pupil?

What can CDT offer to Children with Special Educational Needs?

The underlying hypothesis on which I have based my ideas is the belief that most children enjoy 'doing things' in a practical rather than academic way. This is by no means a new idea when it comes to educating the 'less able'. I do, however, believe that teachers of CDT and many others are not aware of the vital role the subject can play in the education of children with 'special educational needs', needs which will vary but also which may have some common characteristics.

CDT is taught to smaller groups of children than most other subjects, the equipment used is extensive

and interesting. The materials used are varied and by the nature of the subject it is 'child centred'. Essentially, there is tremendous scope for a child to learn and express himself in a safe and controlled environment.

The Schools Council (1980) after surveying the opinions of teachers, found that with regard to 'non-academic' outcomes of educational activities Art and Craft, including CDT, came top in the following areas for disturbed children:

- i. relief of tension
- ii. personal enjoyment
- iii. sense of achievement
- iv. giving insight to personal and emotional problems.

The enjoyment and sense of achievement to which they refer is certainly something that I have witnessed when teaching CDT to children with mild/moderate learning difficulties and children categorised as being maladjusted.

Such achievement and enjoyment makes children want to return to the subject and progress onto more difficult projects. This could be the situation in many other subject areas, however being a 'doing' or 'making' subject the results are much more obvious. This point would seem to have been recognised by the Schools Council (1975):

'It is well established principle that the learning of slower children needs to be based on the concrete rather than abstraction' (p.18).

When a child meets the subject of CDT for the first time he could have behind him several years of failing in other areas of school life and possibly out of school life. He might have difficulty reading, doing arithmetic, getting along with other children and teachers. He might, because of these situations, lack confidence and be at the start of rejecting what school has to offer in order to avoid further failure, rejection being his 'defence mechanism'.

In the first or second year of secondary school, or the equivalent if he is in a middle or special school, a child will hopefully have the opportunity of working in a way not previously done in school. He will enter a workshop, within which contains a variety of new and interesting things, he will have the opportunity to produce 'something' using many skills which he has not already failed at using. If he

succeeds the end result is visible and real for all to see and probably for him to keep. Perhaps at this time, we can help the child with 'special needs' the most by capitalising on this interest, Eggleston (1953):

'It is precisely at this time, the beginning of the secondary period, that an exceptional opportunity occurs for assisting the educational development of the backward child' (p.61).

Eggleston referred to children who are now described as having moderate learning difficulties. He went on to describe the great influence the CDT teacher may have, he continued:

'An interesting stranger with a new subject which is at once acceptable to the boys as an adult activity, is in possession of an outstanding opportunity to assist the whole development of the backward child' (p.61).

This is of course providing the teacher is aware of the needs of the child. Eggleston continued to suggest that not only is CDT (then handicraft) useful, but that it could lead to be

'the key subject for the whole education of the backward child, which harnessing the practical interest of the boy, accelerates the whole of his educational development' (p.61).

This would seem to be quite a strong claim but one which I certainly subscribe to. Quite simply, what other school subject could be a better starting point for so many ways of using 'practical' 'concrete' learning? If we take, for example, a project of designing and making a toy lorry. Apart from learning about the materials and tools to be used, why not include work about the history of transport, some simple science, e.g. fitting electric lights, road safety etc., etc? The possibilities are endless.

Others who have found the opportunity of working in concrete situations with less able children included Duncan (1942):

'Attempts to educate them with an approach through the medium of words met with little success. We have seen, however, that in the ability to deal with relationships in concrete situations many of even the duller children are at the same levels as children of middle ability, and that in this respect some are even above the line of middle ability' (p.66).

Duncan's experience was gained by teaching 'backward' boys woodwork, he also stated that it taught them self-criticism and gave them a sense of achievement. He did, however, add that children who had an IQ of below 66 did not seem to benefit from such a medium for learning. This however, is contrary to the experience of Howard and Whally (1977) who experimented with some very basic woodwork with a group of mentally handicapped boys, brain damaged and Downes Syndrome. They began with simple operations such as hammering



nails, sorting nuts and bolts. They found that after the programme the behaviour of the boys improved.

Such simple operations cannot really be described as being true 'all round' CDT activities. However, it is just an example of how one particular area of the subject may be of use to children with a particular 'special need'.

With regard to the use of CDT for children with emotional and behavioural difficulties, one of the pioneers of this work with maladjusted pupils was Wills (1941). He saw practical and craft activities as being a most useful medium for therapy. Laslett (1977) sees the most beneficial aspect of craft as being the so many different things available for children to use:

'The wide variety of materials and tools in the craft room meet the children's needs and moods. There are soft, malleable materials which offer little resistance to cutting and shaping, and hard materials which only strong blows and bold movements can affect. This at once indicates the therapeutic possibilities of craft' (p.132).

Many children with 'special educational needs' for one reason or another may have difficulty making friends and sustaining relationships. They may be introvert, lacking confidence, having experience of relationships failing in the past or just be unpopular due to their behaviour. I believe that in CDT lessons an ideal opportunity arises for children to work together as a group or in pairs on a project of common interest. If a child has a special need in this area it would not be too difficult for any teacher who is made aware of the need to manipulate the situation to help. Laslett (1978) refers to the strength of the subject for this purpose:

'Craft lessons give children opportunities to increase their skills, to co-operate with other people and to realise their own limitations and

capabilities. The finished product reflects both their practical skills and their personal qualities' (p.133).

Problem solving is an important feature of the 'new' subject CDT. The way of solving problems in the workshop is taught in a definite sequence and applied to progressively difficult projects and briefs. Children growing up have many problems, especially those who have learning and behavioural difficulties. If these children become interested in CDT, might they not learn an approach to solving real life problems?

There are three specific areas in which I feel CDT can play an important role, under the headings of basic skills, self-image and motor-skills.

Basic Skills

By basic skills I refer to those basic ingredients which are needed to survive in other areas of the curriculum and post school, i.e. language (reading, writing and oral expression) and numeracy. My argument quite simply is: Could not CDT be used as a medium for promoting such skills in a way which is interesting, relevant and enjoyable? I believe so.

A child who becomes interested in craftwork quickly learns the names of the tools and processes involved. If all of the equipment is clearly labelled and details of the processes he needs to know are written appropriately, this will surely help his reading? He would be reading for a purpose.

If a child wishes to make something special and communicate his own ideas to a teacher, he will be asked to draw a simple sketch and then perhaps a more complicated working drawing. These will be labelled to explain details, information may be needed from relevant books. The pupil would be writing because he can see a need to do so. It would take little imagination to extend this 'relevant' use of written skills into other areas, e.g. letter writing for information on a specific topic, keeping a workshop diary etc.

Turning to the oral use of language, it is widely accepted that a child's language develops best when the child is in conversation with an adult and for this reason the Bullock Report (1975) recommended that:

'There should be more opportunities for children to be in a one to one relationship with adults' (p.70).

Surely the CDT teacher is in an ideal position here? Remembering that a child who is following an individual project will need to approach the teacher for specific help and advice (even the child who usually gets away with sitting quietly at the back of most other lessons!). With regard to Home Economics, which could be viewed as a branch of CDT, Devereux (1979) refers to the fact that many teachers may not exploit this opportunity:

'Specialist teachers realise the opportunity Home Economics offers for developing practical use of

communication and language skills — but how scientifically is this exploited?' (p.16).

The use of language in school CDT workshops would seem to be relatively uncharted ground but the new concept of CDT would seem to give tremendous scope for improving children's use of language. However, much more research is needed.

We may even move one step further from not only encouraging children who use verbal skills to explain what it is they are going or wish to do, but also by using lessons as informal counselling sessions. Not for every child, of course, but perhaps those one or two children in each class who may have 'special needs'. Wilson and Evans (1980):

'When the hands are occupied conversation on personal matters often arises more easily and with less embarrassment than formal counselling sessions' (p.180).

Numeracy

Much criticism has been levelled recently towards the standard of maths in schools. The Cockcroft Report (1982) recommends as part of the solution that maths should be given more relevance and used in different areas of the curriculum. He especially mentions Art and Craft subjects. I would suggest that CDT is a particularly important subject area for promoting concrete use of maths, if only we were to explore the opportunities. Cockcroft (1982):

'Teachers of other subjects as well as mathematics teachers, need to be aware of the part which maths can play in presenting information with clarity and economy, and to encourage pupils to make use of maths for this purpose' (p.148).

I have been able to find few documented examples of where Maths or English has been 'deliberately' taught through the medium of CDT type subjects. Burnett (1969) however, is one example. He decided to follow certain projects in wood to discover relevant 'maths in the environment', geometrical shapes, etc., which he followed up on, this he did with primary age children.

I am sure that with careful planning and choice of projects we would encourage most use of maths, perhaps even to help teach a particular stumbling point a child may have in learning certain mathematical concepts. CDT teachers at the very least ought to be aware, as Cockcroft points out, of the importance of how to present and use maths.

Self-Image

The importance of a child's self-image and his subsequent success or failure at school has become more and more acknowledged as being closely correlated. Research has shown that a positive self-concept and high self-esteem is likely to result in higher achievement (Bledsoe 1967, Bowden 1957). One of the characteristics of many children with 'special educational needs' who may be failing at school, is that they have a poor view of themselves

and low self-esteem. Such a situation may contribute towards the formation of a type of 'secondary handicap' as described by Shakespeare (1975). Teachers are in an ideal position to help improve (or make worse) a child's self-concept, by the situations he manipulates and what 'message' he relates to his pupils, consciously or unconsciously.

I believe that by using the many attributes of CDT, teachers can help pupils improve their self-esteem. This can be done by careful selection and planning of activities and projects which will result in the child achieving success. Such success, which will be visible and concrete, something for the child to show to 'mum'. Many children with 'special needs' badly need such reinforcement from parents, peers and other teachers. They may have few opportunities of achieving it in any other situation. Wilson and Evans (1980) survey of Special Schools found that:

'Staff felt that after competence in the basic skills, craftwork offered the best opportunity for improving self-esteem' (p.138).

From my own experience of teaching children having 'special needs' care is needed to prevent too much failure. Just as pleasing results in practical subjects are easy to see and be proud of, a total disaster can also be very obvious and make a child reluctant to participate.

Clearly the CDT teacher responsible for teaching children with 'special needs' ought to be careful that appropriate projects are selected. Projects which would seem to be commensurate with pupil's ability and interest level. Realising of course that making things too easy will do little to help. As Weiner et al (1972) explain, unless the child is responsible for his success he will not accept it as being a positive contribution to his self-concept.

It is useful at this stage to consider some brief suggestions from Coopersmith and Feldman (1972) regarding the way in which a child best improves his self-esteem. They explain that it is very important for a child to have the opportunity for choice and refer to the most extensive programme for affording choice as being a 'responsive environment'. This they based on the Montessori tradition that 'schools should respond to the learner' rather than the other way around. In order to create a responsive environment five essential features are necessary (all of which quite easily relate to CDT).

- i. Child allowed opportunity to choose from several activities.
- ii. Activities are self pacing.
- iii. Activities provide immediate feedback.
- iv. Teachers respond to child by giving help when requested.
- v. Teacher establish limits of environment, activities, materials and organisation.

In CDT pupils will have a choice of several materials and projects. They will have the opportunity to work at their own pace, they can see



their project taking form. The craft teacher is on hand to give advice when needed, but will structure the environment, setting necessary limits which are usually obvious to children for safety reasons.

Motor Skills

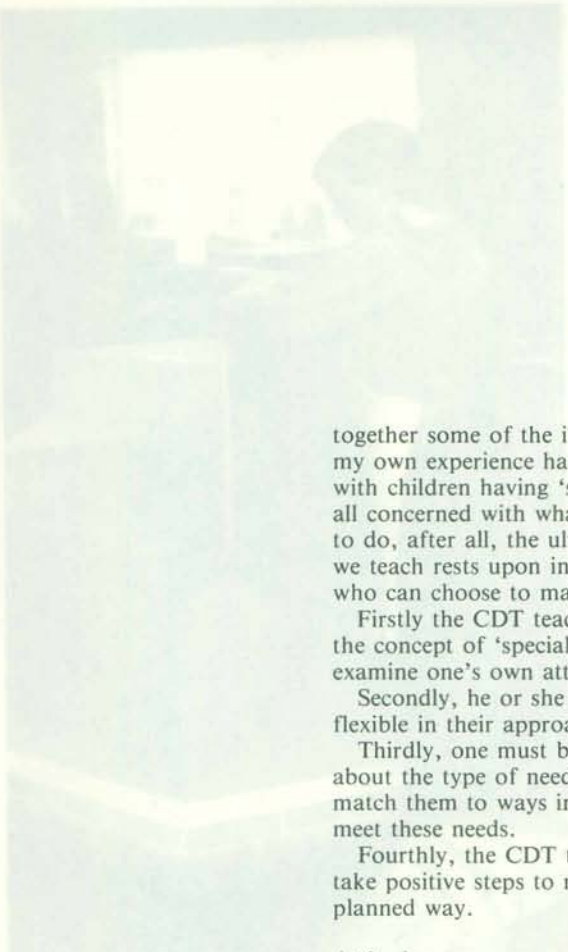
I have left what might be one of the most obvious possibilities of CDT for children with 'special needs' as the last. Some children for one reason or another may have difficulty with co-ordination, both fine and gross. Where else in a school can one find more of a selection of equipment which can be handled by pupils?

Simple and more complex operations can give children the opportunity of developing motor-skills, from using a pencil and cutting string to soldering tin sheet or shaping hot metal. I believe that the possibilities are endless, especially with an imaginative teacher. Each 'need' of course has to be considered and the appropriate type of work selected.

Problems and Pitfalls

Providing CDT on the curriculum for children with 'special educational needs' even if it is viewed as an important ingredient in their education, may not be easy. There is still a shortage of qualified teachers of CDT — in Special Schools difficulty might be found attracting suitable teachers because of limited equipment as Butterworth (1983) points out. Economic constraints may prevent such investment. On a wider base, however, most CDT teachers will encounter children with 'special needs' in the ordinary situation. How these teachers approach such children and any others who may be integrated from Special Schools will vary with each individual teacher.

I wish to consider four points which I feel are important for the specialist teacher to do if he or she is committed to help meet the needs of 'special' children. I have formulated these points by drawing



together some of the issues raised, but mainly from my own experience having met CDT face to face with children having 'special needs'. The points are all concerned with what the individual teacher ought to do, after all, the ultimate responsibility on how we teach rests upon individual teachers. Teachers who can choose to make an effort or not.

Firstly the CDT teacher must come to terms with the concept of 'special need' and be prepared to examine one's own attitude towards such children.

Secondly, he or she must be prepared to be more flexible in their approach to such children.

Thirdly, one must be prepared to find out more about the type of needs children may have and match them to ways in which CDT can help to meet these needs.

Fourthly, the CDT teacher should be prepared to take positive steps to meet these in a deliberate and planned way.

Attitudes

In my experience teachers prefer to teach the most able pupils. Why not? It is easier. How many teachers enjoy teaching the remedial class, or the class which contains several disruptive pupils? If the reader doubts my theory, I suggest a visit to a school staff room when the new timetable is announced!

The majority of children with 'special needs' require more time and effort from their teachers. For this reason such children may not be popular and may be labelled. The consequence of such labelling has often been discussed, e.g. Becker (1963). Such labelling and the related attitudes towards such children could be the cause of other problems. An example is perhaps truancy, as Hamblin (1977) states:

'Truancy can be a response to both the perceived irrelevancy of the curriculum and a sense that the school is not only uninteresting, but uninterested in certain groups of pupils' (p.75).

A great effort and determination is required for a teacher to overcome the pressures we may encounter from our colleagues, especially with regard to labelling. Staffroom language is very descriptive when concerned with children who have learning difficulties and behavioural problems. It is very easy to make excuses and opt out of making an effort with such children, blaming failure on *their* inadequacies not *ours*.

I believe that we must firstly examine our own attitude to children who have 'special educational needs' before attempting to hope to meet their needs. This is perhaps one of the hardest things to do, especially at a time when CDT teachers may wish to jump on the band wagon of their subject being more and more 'academically' acceptable for more able pupils.

In future the CDT teacher may be expected to teach more and more children with 'specific needs' in addition to those children with 'special needs' he will teach already. This may, for example, mean

teaching a physically handicapped or visually impaired child. At this point the teacher may have the choice of making a real effort to help or to look for problems, not solutions. Hegarty and Pocklington (1982) found that generally teachers of craft subjects erred too much on the side of caution with children having 'special needs', sometimes restricting activities. However, they did state:

'Teachers who gave pupils scope while exercising normal standards of care found no problems. One metalwork teacher found that pupils with learning difficulties not only treated the machines with respect, but took pride in being able to use them confidently. Nobody had accidents to report and it would seem as if undue over-safety is unwarranted' (p.253).

It would seem clear, therefore, that the attitude and experience of teachers can open and close doors for such children. In addition to opening closing doors teachers can also, as previously suggested, give signals to children, both positive and negative depending on their attitude towards such children. Evans (1959) considered this point particularly important when teaching craft to lower streams:

'Relationships are important — let the children know that you enjoy teaching them' (p.3).

Adapting Styles and Methods of Teaching

CDT teachers in my experience often tend to be quite disciplined into particular ways of controlling groups and methods of teaching. In many respects this would seem to be necessary due to safety considerations. I also believe, however, that this can sometimes cause such teachers to be cold and inflexible. When teaching children with 'special needs' we have to expect to help with problems which may not be experienced by other pupils in the group. It may be possible that such children may have characteristics which may be contrary to the attitude and expectations of the teacher. Evans (1959) listed eight characteristics of the 'backward' child, points which may be useful to consider when developing one's own philosophy and methods of teaching such children.

- 1) inability to concentrate.
- 2) slovenly appearance.
- 3) untidiness and carelessness.
- 4) attitude of 'anything goes'.
- 5) clumsiness.
- 6) poor retention.
- 7) resentment to correction.
- 8) behavioural difficulties.

'Due to the characteristics of the backward lad, it is plain that traditional methods of teaching woodwork will have to give way to unorthodox methods' (p.3).

Our acceptance of the pupils in our classes and our willingness to be flexible and innovative must have a great deal to play in the initiation of SEN children into the CDT workshop. I believe that we

should be prepared to cater and meet individual needs and not expect pupils with difficulties to slot exactly into the framework of traditional approaches. We might, however, choose to use this as our overall aim for that child.

A personal and I believe telling example of an inflexible approach is from a 'maladjusted' school which I visited. The woodwork teacher would not permit the boys in his class to do craftwork because they were wearing training shoes. The well equipped room was unused, the boys did written exercises instead. The school served a run down inner-city area, the boys may well have not had the appropriate footwear which was thought necessary for safety. I believe that in the circumstances the teacher could have approached the problem in a more imaginative way, perhaps by starting on more basic craftwork, leading up to operations which really did require stringent safety rules. Hopefully snowballing their interest on the way to a point where more of an effort was made to provide the necessary footwear.

In order to make the teaching of children with 'special needs' successful, equipment may have to be adapted, decisions regarding content will have to be made. A CDT teacher should perhaps consider using aids which he may have totally rejected when considering projects for 'ordinary children'. He will have to decide whether it is more important that a child succeeds in making what the others have made with the help of a template and jig, or whether the child should chance failing.

Being Aware of Needs

Once a CDT teacher has accepted the responsibility of working in a positive way to help meet the needs of children with difficulties, i.e. examined his own attitudes and is prepared to adapt his approach to teaching, I believe he should then be prepared to look at the type of needs we are concerned with. Especially how they relate to his subject content. Unfortunately, however, it would be difficult to draw up a problem and answer taxonomy for a child's 'special needs' as each need will vary. A teacher of CDT therefore ought to be prepared to consider particular needs and match these with his own knowledge and experience of how his subject can help to meet these needs. Hopefully I have begun to suggest some possibilities.

Teachers of CDT should be prepared to be critical of their own methods of teaching and also to extend their own immediate concerns into areas which they have previously given little or no thought. For example, the way in which they use language to communicate their ideas. Many children (unknown to the CDT teacher) may have difficulty understanding subject specific language. Words which they hear in the context of the workshop which might be totally out of touch with their own experience. Barnes (1971) has clearly explained that often specialist subjects use language which presents a barrier to their pupil's learning and should be introduced in a careful planned way.



Often CDT teachers will direct children to written material for reference, homework or punishment. How aware might that teacher be to the complexity of the material and the ability of his pupils? By being prepared to extend his or her area of professional knowledge possible problems may be prevented, especially for children who have learning difficulties.

Moving away from the 'learning difficulty' aspect to more general social problems which may surface in the teaching of CDT, I wish to briefly highlight children who could be described as being disadvantaged. Many children with 'special needs' will come from homes which are disadvantaged. I use the word disadvantaged as used by the National Child Development Study and later Wedge and Prosser (1973). They see these children as being part of large families, living in poor housing and their families have low incomes. The study explains that:

'Disadvantaged children are thus over-represented in Special Schools in general and in schools for the ESN in particular' (p.43).

I believe that the implications this might have for such children who follow the subject CDT are considerable. For example, today more and more schools are expecting children to contribute towards materials because of the present economic climate — do we check to see why children do not provide what it is they are asked to do? Or do we assume that they are just not interested? Children who continually forget their apron — have they got one? Or do they just borrow one when they can? These may seem minor points, but possibly the start of more serious problems. My view here is best summarised in the fictitious but nevertheless true to life novel 'A Kestrel for a Knave' by Hines (1968) when 'Billy' as not got his PE kit and this then starts further problems. How many more children with 'special needs' will continue to gain little from the subject of CDT because some teacher fails to

look beyond superficial behaviour and not the cause? If we fail to iron out these problems we cannot start to help the child with 'special needs'.

Making Positive Steps

Apart from examining one's attitude, being prepared to adapt one's style of teaching and being more aware of 'special needs' of children, what else can the specialist CDT teacher do? The answer to this will rest a great deal on the individual teacher and his ability to match 'needs' with the

scope of CDT to help meet these 'needs'. However, I would like to conclude by suggesting some points which might be considered useful.

Firstly, the CDT teacher or a representative from his department must be prepared to attend and take part in the group which is deciding how to meet the needs of particular children. He must put forward his own ideas of how aspects of CDT can help meet these needs. We cannot expect non-specialist CDT teachers or other professionals to know the tremendous scope of the subject.

Secondly, a teacher of CDT ought to be prepared to make special aids to his teaching. For example, children with learning difficulties may require specially adapted work cards, additional help possibly before each lesson. Additional jigs and templates may be needed to be made. Children who have difficulty grasping special concepts might be helped by additional visual aids, e.g. photographs, pictures and models to supplement working drawings. Children with specific needs and difficulties may need even more time spent on adapting equipment — surely the Design teacher is the ideal person to find solutions to such practical problems?

The CDT teacher must be prepared to project a good image of the pupils with 'special needs', especially as CDT may be one of the few areas in which that child has had evidence of 'visual' success. This can be done by displays around the school, showing off work as part of assemblies, photographing pupils with their work for display. Hopefully aiming to boost the self-image of the pupils which may give them more confidence in other situations.

Some children with 'special needs' may have difficulty sustaining interest on long projects, being unable to appreciate the eventual goal. To overcome this problem but still perhaps with the aim of encouraging such a skill, the teacher might introduce an 'award' scheme which encourages a collection of skills. This could be a very general record of skills achieved and collected or specific to a certain project.

Finally, relationships with any children I believe are important. The child with 'special needs' may have difficulty making and sustaining relationships with adults and peers. The CDT teacher should be prepared to offer opportunities for children to develop these skills by manipulating groups, steering the pupil with 'special needs' into situations where he might best develop. Many CDT departments will have craft clubs, special needs children should be encouraged to attend, after all few teachers may have shown such interest and willingness to have the pupil for extra time in the past. The CDT teacher may be able to go a step further and create situations where children with 'special needs' can be the envy of the rest of the school. For example, by including such children in a special project.



Conclusion

The future development of CDT along the lines I have discussed must depend on further research and experimentation. Perhaps a survey of what is being done already, a more detailed look at children interacting in school workshops. I have however expressed my concern that such research may not be forthcoming because of a lack of interest and also because those involved might be more concerned with upgrading the status of the subject. Perhaps the feeling might be that if we shout about the value of CDT for children having 'special needs' it may hinder this upgrading.

The role CDT could play for children having 'special needs' ranges from a core role to a supporting role, depending on the type of 'need' involved. As a core subject it could be used to rekindle the dying flame of enthusiasm suffered by some children in our system. A second chance at succeeding in a 'compulsory' environment in which they may have already failed, using common sense skills in order to lead to other less attractive ones. As a supporting role CDT could be used to help meet many need such as improving self-image, motor co-ordination or a therapeutic aid. I believe that the possibilities are endless.

Stag beetle. From *Animal Forms, a design resource book collected and arranged by Nigel Billington and John Jeffery* (Longman, £5.95).



Any theories regarding the education of children rely upon the co-operation of the teacher to try out, at the chalk face. I believe therefore that the successful use of CDT for children with 'special needs' depends on individual teachers being aware of the needs involved and the scope of their subject. Often the obvious might be missed and therefore in-service training ought to be seen as a way of highlighting the important role CDT and CDT teachers could play in the education of some very 'special' children.

Bibliography

- Barnes, D. (1971) *Language the learner and the school*, Penguin.
- Becker, H. (1963), *Outsiders*, New York, Free Press.
- Burrett, A.R. (1969), Mathematics through Art and Craft in *Primary School Maths*, No. 7, pages 14-25 (December 1969).
- Butterworth, J. (1983), *Staffing for Curriculum Needs*, NFER-Nelson.
- DES (1975), *A Language for Life*, (Bullock Report), HMSO.
- DES (1978), *Special Educational Needs*, (The Warnock Report), HMSO, London.
- DES (1982), *Report of the Committee of inquiry into the Teaching of Mathematics in School*, (Cockcroft Report), HMSO, London.
- Devereux, H. (1979), How valuable is Home Economics? in *Special Education in Forward Trends*, Vol. 6, No. 2.
- Duncan, J. (1942), *The Education of the Ordinary Child*, London, T. Nelson.
- Eggleston, J. (1953), Handicraft for Special Classes and Special Schools in *Practical Education and School Crafts*, Vol. 2, 528, December, 1953.
- Evans, H.T. (1959), *Woodwork for the Lower Streams*, Technical Press, London.
- Hamblin, D.H. (1977), Caring and Control, the treatment of absenteeism in: *Absenteeism in South Wales* (ed.) Carroll, H.C.M., University of Swansea.
- Heggarty, S. and Pocklington, K. (1981), *Integration of Children with Special Needs*, London, Nelson/NFER.
- Hines, B. (1968), *A Kestrel for a Knave*, Penguin Books.
- Laslett, R. (1977), *Educating Maladjusted Children*, London, Crosby, Lockwood, Staples.
- Schools Council (1975), *Teaching Materials for Disadvantaged Pupils*, (Gulliford and Widlake).
- Schools Council (1980), *Special Provision for Disabled Pupils — A Study* (Dawson, R.L.), Macmillan.
- Shakespeare, R. (1975), *The Psychology of Handicap*, London, Methuen.
- Wedge & Prosser (1973), *Born to Fail*, Arrow.
- Weiner, (1972), *Child Development*, New York, Wiley.
- Wills, W.D. (1941), *The Hawkspur Experiment*, Allen & Unwin.
- Wilson, M. & Evans, M., *Education of Disturbed Pupils* — Schools Council, Working Paper 65.