

## **The future is skills**

*Ian McCracken*

### **Abstract**

In this article, the author describes the formation, development and current status of a skills system in use in a Glasgow Secondary School. The school's circumstances are outlined, and then the article explains how issues and observations with the school library led to a number of hypotheses and a rationale. The progress of the skills system as it evolved and became part of a Whole School concept is explored, and the characteristics of the system, which the school believes is unique, are discussed. The ways in which this Future Skills System relates to the new curriculum in Scotland are indicated, together with the means by which the system brings together careers, employers, expectations and skills. The article concludes by highlighting the current stage in the process.

### **Introduction**

In its follow-through report published earlier this year, H M Inspectorate of Education (HMIE) identified Govan High School's development of "Future Skills" as an example of good practice: "...that allows the school to identify, develop record and report the achievements of individual young people" (HMIE, 2009). While many documents, reports and organisations have highlighted the importance of skills, Govan High School has gone a significant step further by specifically identifying these skills, and integrating them throughout the school in every way possible. The fact that HMIE has now publically recognised this achievement – and the further steps that the school has undertaken (as described in the quotation above) – demonstrates clearly the unique nature of the skills system and underlying philosophy that the school has undertaken.

While the Future Skills System was being developed, evolved and continually tested rigorously, the school would not and did not publicise the work in which it was engaged. A stage was reached when it was ready to meet public scrutiny. There has subsequently been considerable positive reaction from schools,

---

### **Ian McCracken**

Ian McCracken is the Learning Resource Centre Manager in Govan High School, Glasgow. He has been a keen advocate of skills connections for many years.

Email: [IMcCracken@govanhigh.glasgow.sch.uk](mailto:IMcCracken@govanhigh.glasgow.sch.uk)

Received 26 October 2009

Accepted 04 December 2009

colleges, universities, employers and educationalists. Senior Library and Information Managers have recognised in the Future Skills System a serious and dedicated effort to, at long last, tackle properly the chimera of transferable skills that have so long eluded definition.

### **Govan High School**

Govan High School is a secondary school (ages 11-18) in the South-West of Glasgow. The school is in a district that often features near the top of any list of deprived areas in Scotland, according to a number of reports. Over the years, the number of pupils in the catchment area has shrunk, and is now less than 400. Employment in the area has for generations been very high. Few pupils traditionally go on to university straight from school. The school is very much at the centre of the community and makes every effort to try and overcome some of the real and perceived barriers that have prevented pupils from – in the words of the school mantra – “achieving their full potential”. Staff who work here are very committed to assisting pupils as much as possible and willingly work above and beyond formal job description – e.g. by running lunchtime clubs, out of school events, etc. Those most involved with the System described in this article are the Headteacher, who has now worked in the school for 14 years, the librarian who has worked here for 29 years, and the Deputy Headteacher, who although he has worked in the school for less time, has seen the issues affecting pupils at first hand, starting when he was appointed with a role in Behaviour Support.

### **Current curricular structure in Scotland**

“A Curriculum for Excellence” is the name given to the current system in place in Scotland. To quote from the website (Learning and Teaching Scotland, 2009a): “The purpose of Curriculum for Excellence is encapsulated in the four capacities - to enable each child or young person to be a successful learner, a confident individual, a responsible citizen and an effective contributor.

The experiences and outcomes in the range of [curriculum areas](#) build in the attributes and capabilities which support the development of the four capacities. This means that, taken together across curriculum areas, the experiences and outcomes contribute to the attributes and capabilities leading to the four capacities.”

### **Future Skills – starting points**

The development of Future Skills had a number of roots. A key one was not the definition of the skills themselves, but a “Skills Rationale”. Having worked with teachers and pupils in the library for many years, and having been involved in much collaborative work with other organisations in the library and information world, it was clear to me that only by establishing a foundation of solid and rational ground rules could we proceed with any hope of success to making any skills focus actually work. Further details can be found in the next section.

We therefore looked at what the word “skills” signified, and came to the firm conclusion that these must be cognitive and communicative as well as mechanical. We also considered where these skills should be found, and were in no doubt that

they must be in every kind of work that was being done, whether in the classroom, the library/resource centre or on an educational visit out of school. I knew from working with different departments and establishments that there was much idiosyncrasy or randomness in the description of skills. It therefore became a key principle that everyone (staff and pupils) should use the same skills set, and that we should establish the notion of a “Common Vocabulary”. By ensuring that people throughout the school were referring to the same skills by the same names, it eliminated confusion and – for the first time – enabled connections to be made throughout the school.

When we describe these principles to the many visitors who come to hear and see future skills in action, their simplicity often surprises people. However, we have never yet come across any individual or organisation that has actually established its own principles or indeed appears to have considered the importance of underlying principles themselves. Librarians and information managers often encounter “assumptions” by others and as a consequence have to help users find information that others have “assumed” the users can find for themselves. In the education field, my view is that the most common assumption is that pupils/students have excellent analytical skills. I cannot see how it can be possible for there to be skills transferability *without* analytical ability: the pupil/student has to be able to analyse the task in one subject and be able to recognise the same basic element in another subject – but who teaches analytical skills?

As part of its consideration of the principles involved, we looked at the notion of the independent learner. It became clear that to be independent learners, pupils/students must be involved in their learning. This not only reinforced the Common Vocabulary – for how could pupils become involved in their learning without having a way of sharing information about it – but it also led us to put the learner at the centre of everything we were doing: in theory and in practice.

### **Skills origins - library**

Like many librarians, I had often been surprised at how often tasks that teachers set pupils in the library often took many skills for granted, or where skills were mentioned at all, that they were described in entirely different ways by different teachers. Frequently, this resulted in teachers getting angry with pupils – they often thought that the problem was because pupils were deliberately wasting time, whereas from what I could see the issue was more fundamental.

Again like many librarians, I spent much time before library bookings talking to individual teachers to minimise any potential issues. This would succeed for a while, but had to be done time and again as new staff arrived at the school. I felt that a good starting point for a more inclusive approach would be Keywords. On discovering that different subjects even had a different name for these (some subjects called them “Topic words”), I then concluded that the only sensible approach would be to look for underlying skills – in that way, it would not matter what teachers called things. After much reflection, I concluded that the skills required to produce useful keywords were: analytical ability, flexibility, ability to make connections and good vocabulary.

An opportunity to put this theory into practice came in the form of a Homework Club that I started with support from local Community Workers and the school's Behaviour Support teachers. The group of pupils attending the Homework Club did not fit any conventional stereotype of those most likely to attend such clubs so were therefore an ideal group for our purposes. As well as homework emanating from teachers, we also used a wide range of fun learning activities and through both highlighted skills. As can be imagined this took a lot of time and effort, but we persevered as the pupils were clearly enjoying being given more opportunity to become involved and were often competing with one another to be first to recognise their skills.

When it was decided that the library would be converted into a Learning Resource Centre, it became essential to seek pupil helpers to assist in the complicated process. A number of senior pupils volunteered, and provided invaluable assistance. Starting from the list of skills compiled for the Homework Club, the helpers and I identified a whole range of skills that would be useful. The purpose of the list was three-fold: first of all so that we could look at a wide range of skills that pupils were themselves identifying, secondly so that they could judge their own progress "before" and "after", and thirdly so that pupils completing university or job applications could more confidently describe their own skills, and could explain very clearly how they had gained these skills.

The screenshot in Appendix 1 highlights the skills that between us we developed in the left-hand column. The scores listed show some of those that one pupil estimated she had improved.

When we reviewed the skills, it was obvious that there was some duplication or overlap; also that if skills were to be utilised in a wider context some of them would be far too specific or would apply only to libraries. The next stage is set out below.

### **Skills background - whole school**

A staff visit to a school in Ireland, an innovative Primary-Secondary Pupil Induction programme and a Visual-Audio-Kinaesthetic Staff Training Programme were the very diverse starting points for the development of Future Skills at a whole school level from its inception in the library/resource centre.

In Ireland, we were looking at various initiatives taking place in a partner school. One of these was a mentoring programme, in which younger pupils received much help and support from older pupils. The school had an extensive training programme for the older pupils, who were able to speak with confidence, articulacy, intelligence and understanding about the role they played in supporting those in lower year groups. What caused complete silence and indeed consternation were questions to the mentors from us regarding what skills the older pupils themselves got out of it – this was not covered in the training, and none of the pupils appeared to have thought of it for themselves – an assumption/gap of transferable and analytical skills that gave us much food for thought.

An external consultancy was employed to run an in-service activity on Visual, Auditory and Kinaesthetic Skills (Child Central, 2009) Staff were then divided into groups to ensure a mix of different subjects. As a participant in one group, it was soon evident to me that there was much more in common than teachers themselves realised in how various subjects were tackled. I offered to pull all the ideas together and look for underlying techniques and ideas. This later became very valuable evidence to demonstrate to any subject-bound staff that there was much more in common across the subjects than had been previously recognised. It had also brought to the fore yet again the issue of transferability of skills, as Teacher A would state the name of a process that encouraged Visual Skills in their subject, and everyone else would look blank until Teacher A described what actually took place, and Teacher B would say “oh yes, we call that...”. The fact that teachers themselves were experiencing the effects of a lack of any collective way of describing things made the later introduction of the Common Vocabulary resonate much more clearly than it would have done otherwise.

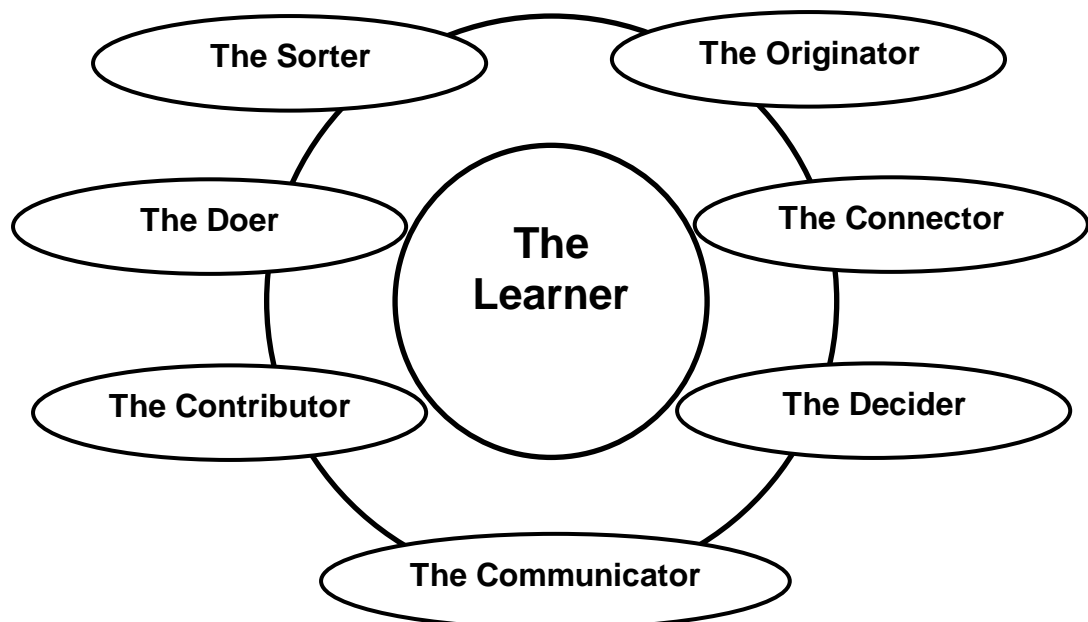
As a change from the standard routine of showing next year’s new intake of pupils round the school in June, we had devised a title “Skills, Thrills and Fun” and invited staff to run activities on a theme – crime and investigation. In order to maintain the curriculum for other year-groups, middle school pupils had been drafted in to assist staff on a random allocation basis to make sure the younger pupils did not get lost, or to take them to dining hall, and other facilities. It soon became evident in many of the activities that these middle school helpers had many more skills. They took part most enthusiastically and were equally able in helping the younger pupils with a whole variety of tasks. What was remarkable was that some of the pupils who were best at doing this had hitherto either demonstrated no interest in anything, or were “challenging” pupils. Again, the skills implications were considerable and made us think about how these could be replicated. We chose what we thought at the time would be a good idea – trying to “convert” other lessons to the Skills, Thrills, Fun formula. We also made a list of skills that had been used in one of the activities, but it soon became evident that trying to convert lessons was an endless and tedious job, and that the skills list was far too narrow in conception.

We therefore had an Open Meeting for staff to suggest skills and arrived at a provisional list. The experiences that many staff had undergone through Skills, Thrills and Fun and the Visual, Auditory and Kinaesthetic Training had helped to engender an understanding of the importance of this meeting, so there was a large turnout from a wide variety of departments.

We wanted to make sure that the skills identified were the “right” skills, so checked to see which of them could be identified in **all** Standard Grade subjects (not only the ones taught in Govan High). This “matching process” confirmed to the school that the skills permeated the whole Scottish curriculum. It also helped to establish a principle; namely that connecting the Future Skills System to other facets of education was viable, affirmed the universality of the Future Skills System and provided us with a very adaptable analytical tool. This process, which we have logically dubbed “matching”, gave us a final list of 71 skills. (See Appendix 2 for full list) We then decided it was important to group them in “families” and came up with seven categories: The Doer, The Contributor, The

Connector, The Communicator, The Originator, The Sorter and The Decider. The concept was and is that everyone is a mixture of skills from all of these categories, and that many if not most people will have significant “grey areas” or hidden skills which various experience and better analytical skills can help them recognise. We pictured these skills in a circle with “The Learner” in the middle, to signify that the model applied to pupils and adults, and that each learner needed to have a variety of types of skill. We also wanted to emphasise the fact that every learning area (not just traditional classrooms) contributed to the potential development of a wide range of the skills: we did not want a situation for example where the English Department in school might “assume” that it could or should just focus on the skills of the Communicator, or the Technical Department assume that it equated with the Doer. Such narrow thinking would have been totally contrary to our way of thinking – fortunately any fears we might have had in that respect were completely groundless, or were eliminated through the extensive staff training process, which included all categories of staff, not just teachers. From our abortive experiment with Skills, Thrills and Fun (described above), we had also come up with a radical way of approaching change – no longer would teachers (or other staff) have to discard all the work they currently did and have to start again, but instead, all they would have to do would be to highlight skills that were already present in their lessons, and involve pupils in this process.

## Future Skills



**Figure 2: Model illustrating the Future Skills ‘families’.**

When several years later the Curriculum for Excellence used some similar terminology in its four capacities - “Effective Contributor”, “Responsible Citizen” it gave us some considerable satisfaction that we had been first to recognise the importance of personalising the terminology.

Once we had refined our skills list through the medium of the Standard Grade matching process described above, we also realised that, now that we had our definitive skills list, they could be matched to anything else – so we have progressively matched them to individual lessons and learning experiences, course plans, national and local employers' expectations, to the Skills for Scotland strategy (Scottish Government, 2007) to 100 wide-ranging careers, as well as to Curriculum for Excellence (in principle and in detail). Given that there is a great deal of talk about employers' expectations but often little substance, it is perhaps useful to note that Govan High School liaises with the [Glasgow South Business Club](#) and matched the Future Skills directly to responses from employers. When the President of the Glasgow South Business Club saw the Future Skills System for himself, he stated to the school "This is exactly what Businesses are looking for".

### **Recording pupils' skills**

With the financial assistance of the local council, and the technical expertise of an educational ICT Company, the school has now set up a database where all the skills gained by individual pupils can be recorded, analysed and evaluated. Pupils can ask to have skills certificates printed for them. These not only show what skills the pupils have gained, which skills areas are their strong point, which developmental events and activities they have been involved in, but also indicates how successful they have been in each of the four capacities of a Curriculum for Excellence.

### **Parallels**

From 2004, the Future Skills System has gradually been developed. Being centrally involved throughout this time, I have been able to see very clearly what I term macrocosm-microcosm parallels between the system and library services. Many of the Future Skills have a clear place within libraries – e. g. most of the skills in the Communicator, Connector, Decider, Doer families in particular fall into this category. If pupils/students are involved in helping in the library, then self-evidently, the Contributor comes into play.

### **Effects in the library/resource centre**

Highlighting skills pupils can learn in the library by using more generic skill names has helped me – and I think can assist other librarians – in drawing teachers' attention to connections between different subject requirements and the place that libraries can play in their development. By emphasising the connections, rather than the skills themselves, I believe more continuity can be achieved, and have found teachers more willing to listen – as skills taught in the classroom are now being shown to have a direct bridge to "libraries" Also, by using a non-subject specific terminology, the librarian in my opinion is much better placed to draw together elements from a diverse range of subjects and to become a hub or connecting point for any given curricular initiative, since the skills' names will not ever again have to be changed when any new system change is introduced; all that needs to be done is for the skills to be matched in. If a matching in process has already been established by the librarian, in co-

operation with teaching staff, then the benefits of this continuity should immediately be recognised.

### **Wider effects**

Since the Future Skills system has come into operation and despite a significant downturn in the local and national economy, there has been a marked increase in number of the school's leavers going into jobs, education and training. Pupils giving us feedback after successful interviews have on a number of occasions indicated how impressed prospective employers have been with the certificates. In terms of the effect on pupils – they are now often much more self-confident, since not only members of staff but their fellow class-members are highlighting skills they previously did not know they possessed. While impossible to measure in any formal way, the many visitors who come to the school from throughout the country invariably comment on pupils' engagement with skills. While it may sound a simple thing, pupils being confidently able to identify specific skills that they have acquired or developed across the whole curriculum is much harder than might be supposed. I have read many articles about skills, but never seen one yet in which the skills are named, are in use under the same names across the curriculum, link classroom work with wider achievement, and above all actively involve pupils in the process.

### **Squaring the circle**

Lest readers think that the information literacy element has been lost, recently this author utilised the Future Skills system to analyse all the Outcomes and Experiences from Curriculum for Excellence that explicitly or implicitly included an information literacy element (Learning and Teaching Scotland, 2009b).

This process was valuable for a number of reasons: first of all, it enabled overarching skills connections to be made throughout all the subject-specific outcomes/experiences, which makes it much easier to identify the skills required and employ a common vocabulary to assist pupils in their acquisition. Secondly, it also helped to identify which skills would be most required by pupils in reaching these outcomes. In ascending order, these were: Image modelling; Reaching conclusions; Setting information out; Big picture connections, adapting communication, discovering, processing information, gathering facts, ICT E-lit; and – top of the list – Analytical skills.

### **Conclusion**

The development of the Future Skills System has enabled the school to identify and track skills throughout the curriculum, and into wider achievements. It is also of considerable value in identifying the need to focus on underlying skills, what these skills are and how important they are in a number of different settings. Libraries are often already in the forefront of supporting the acquisition of many of these skills; therefore the use of such a system of this may even prove useful in demonstrating in a clear and comprehensive way how much libraries can contribute to pupils/students gaining a range of invaluable and truly transferable skills



**References**

*Child Central* (2009) URL: <http://www.child-central.com/learning-styles-children.html> [accessed 20.9.09]

HM Inspectorate of Education (2009) *Follow-through report on Govan High School*, URL: <http://www.hmie.gov.uk/documents/followup/GovanHSFT8433836.html> [accessed 20.9.09]

Learning and Teaching Scotland (2009a) *A Curriculum for Excellence*, URL: <http://www.ltscotland.org.uk/curriculumforexcellence/curriculumoverview/aims/ourcapacities.asp> [accessed 20.9.09]

Learning and Teaching Scotland (2009b) *Experiences and outcomes*, URL: <http://www.ltscotland.org.uk/curriculumforexcellence/experiencesandoutcomes/index.asp> [accessed 20.9.09]

Scottish Government (2007) *Skills for Scotland*, URL: <http://www.scotland.gov.uk/Publications/2007/09/06091114/0> [accessed 10.1.08 *et seq.*]

### Appendix 1: Screenshot of sample skills profile

<u>Skills</u>		
<p>I have put into tables the skills that I have improved or developed during my time working in the LRC. I have rated them on a scale of 1 to 10, 1 being the ones I was least good/confident at.</p> <p><i>Skills I have improved:</i></p>		
Skill	Before working in the LRC	After working in the LRC
Communication	4	8
Teamwork	4	8
Organisation	8	10
Leadership	3	5
Problem Solving	7	8
Listening & Responding	5	7
Planning	8	9
Specialised Terms	3	6
Alphabetisation	8	10
ICT/Internet	7	9
Skimming	4	8
Self-confidence	4	7
Motivation	4	8
Self-concept	4	6
Sense of Achievement	5	10
Opportunity to take responsibility	4	8
Reflection	8	9
Resilience	8	9
Participation	5	8
Developing informed attitudes	5	7
Social Skills	5	9
Patience	3	7
Dedication to task	6	10
Reliability	8	9

---

**Appendix 2: List of Future Skills in the seven categories**
**THE COMMUNICATOR**

Adapting communication	Being able to put across information, ideas, etc in a way that's clear and takes account of their possible effects
Creating word pictures	If you see a picture, video, football game etc, being good at putting what you've seen into words
Creative writing	Being good at imagining situations or events, and describing them in writing
Empathetic skills	Acting with a lot of understanding for others' feelings, or for the feel of a situation
Focus on feeling	Being able to tune into the way emotions (yours or someone else's) ought to play a part in something you're involved in
ICT-E-lit (electronic literacy)	Being able to search for the answer to something easily on the Internet, and knowing when you've found the information that meets your needs
Note taking	Being able to write down the important points from a source of information, such as a book, internet site or speech
Objective reporting	Being able to describe something that happened, without including how you felt about it, or any of its personal effects on you
Presentational skills	Being able to show others work you (or others) have done or produced in an attractive way
Self projection	Being aware of how your actions or behaviour are seen by others, and making changes in the way you act, so that you come over the way you really want to
Setting information out	Being able to take information that you've heard or read and make it clear to others
Sharing ideas	Being able to and willing to explain your ideas to others, and not just keep them to yourself
Summarising skills	Being able to put the main points of a long piece of information (written or spoken) clearly across to others
Vocabulary	Being good at picking up new words in your own language or others, and enjoying doing so

**THE CONNECTOR**

Analytical skills	Being able to take a situation and study it fully, and understand what are the most important things about it
Auditory learning skills	Listening to a skill or task being described, and being able to learn how to do it yourself, from what you've heard
Big picture connections	If someone sees the "big picture connections", he or she understands that there's more involved in a situation than it appears, and can take a mental step back from things
Current affairs awareness	Being interested in important issues affecting you, going on around you or in the world
Diagrammatic interpretation	Being able to easily understand information in the form of a line drawing, pattern, blueprint, plan DIY drawing, musical score and so on
Future orientation	Thinking about and planning for the future, instead of only getting caught up with what's happening right now
Gathering facts	Being able to find the right information that you need for a task
Image modelling	Being able to have a clear picture in your head of something without actually seeing it
Networking connections	Being able to see how different things tie together
Objective rational thinking	Looking at a situation on its own, without letting your personal beliefs get in the way
Perceptive interpretation	Having the ability to watch or hear something and understand the meaning behind it
Processing information	Not just listening to what people say to you, or something you've read, but being able to think about what it means
Synthesizing skills	Being able to bring together ideas or information from different sources and put them into an overall picture that you can understand, and that makes sense
Very observant	Being good at seeing exactly what's going on around you
Visual learning skills	Watching a skill or task being shown, and being able to do it yourself from what you've seen

---

**THE CONTRIBUTOR**

Consideration	Being able to take into account the feelings or ideas of others
Co-operation	Being willing to work together with others without wanting your own way all the time
Environmentally friendly	Wanting to do your part in helping the planet by recycling, cutting down global warming by saving energy, and so on
Helping others	Being willing to give your time, understanding skills or patience in supporting others
Participation	Being willing to take part in jobs, activities or tasks
Team skills	Being able to work well with others in a group – knowing when to speak up, when to listen, and how best to help the group

**THE DECIDER**

Decision-making	Being able to know clearly how and when it's important to make choices
Efficiency	Knowing what you're intending to do, and having everything you need to hand without waiting until the last minute
Focus on task	Being able to keep everything else out of your mind, except the one thing you're working on
Judgement	Being able to make the best decisions. This might include ones where there is no easy answer, or where you can only use previous experiences to come to an answer
Leadership	Being the kind of person that others like to follow. Someone that sets an example, or is good at encouraging others
Objective peer evaluation	Looking at others just on their situations or abilities, without letting friendship or dislike get in the way
Organising	Being good at getting things into an order that's easy to understand and use. Not getting into a mess with your work or your life
Reaching conclusions	Having studied a situation, being able to understand clearly what caused it, and what the results are
Self-evaluation and correction	Being able to look at how you're behaving, or the work you're doing, understand that you could do better, and what you need to do to achieve this
Strategic planning	Starting with a clear general plan of what you want to do, rather than thinking just about small details one at a time

**THE DOER**

3-D spatial judgement	Being good at hitting what you're aiming at, or being able to judge distances, spaces and objects well
Action learning skills	Copying a skill or task being shown, and being able to learn how to act it out yourself
Deriving activity from instruction	Being able to carry out a task that you have only read or heard what you're supposed to do
Experiencing	Being willing to involve yourself in some real-life experience, and the completely different feelings you get from doing so
Following instructions	Being able to carry out everything you've been given to do in the way you're supposed to be doing it
Hand-eye co-ordination	Having the skills to match what movements you're making with what you're actually seeing during a task or a sport
ICT - practical	Being able to use a lot of different word processing and graphics programs
Mechanical skills	Being confident with machinery, types of apparatus, engines and so on
Perseverance	Being willing to keep on with something, even when you feel you're not getting anywhere, or might even fail
Practical application	Being handy with a wide range of skills and tools that are used to make or repair things, or in other real-life situations
Practical measuring	Being able to use a range of measuring tools such as rulers, scales, graphs, measuring jugs, and so on
Pushing boundaries	Being willing to try harder than you or others might expect, or push yourself into new areas
Using equipment	Being good with a lot of different tools and instruments needed for a particular kind of work or hobby

**THE ORIGINATOR**

Creativity	Having the kind of brain that often comes up with new ideas, works of art, pieces of music etc.
Designing	Being able to put together all the parts that make up a plan, menu or new idea
Discovering	Being able to find out about new things or new situations
Imagination	Having the ability to dream up ideas for stories, paintings, or thinking how things could be very different from what they are
Independent expression	Being able to come up with your own ways of doing things, without copying other people's opinions, fashions or artistic ideas
Independent working	Being able to come up with your own answers, without copying other people's work

**THE SORTER**

Assimilation	Being able to take in all the facts and make some sense of them
Counting skills	Being good with numbers and figures
Flexibility	Being good at trying different ways of finding answers to a problem, or being willing to change plans to go along with other people
Neurological connections	Being able to take in one kind of information to your brain, and change it into another form
Open to discussion	Able to listen to someone else's ideas, and willing to understand that you may not always be right
Problem-solving	Being good at coming up with ways of solving tricky situations
Weighing up different points of view	Being willing and able to take a number of different choices or opinions, and to look at them against one another