Learning To Fly

The JRCS Teaching and Learning Magazine—Issue 1, March 2015

Welcome, from the editorial team!

Welcome to the first edition of the JRCS Teaching and Learning Magazine – *Learning to Fly*. Our staff, visitors to Jo Richardson, and new staff joining our school commonly identify our focus on developing teaching practice as one of the things that makes JRCS a special place to work. Over the past few years initiatives such as the action research groups in CPD sessions, the Teaching and Learning Group, the rewriting of the JRCS Teaching and Learning Policy and, this year, Teaching Squares, have demonstrated that staff at JRCS care about becoming better teachers and care about making sure students have the best learning experience possible at our school.

Learning to Fly is a celebration of this work.

The magazine has two purposes. The first is to share with each other some of the great things that are happening in school. This inaugural edition includes: some great teaching ideas from the Teaching and Learning Group, who meet once a half term; a 'top-tips' section for new teachers and NQTs and your feedback from the Teaching Squares programme.

The second purpose of this magazine is to bring summaries of books and articles about teaching. We would all like to read more about the latest developments in pedagogy but often time is a constraint; *Learning to Fly* will offer précis of research in order to, hopefully, promote thoughtful discussion about practice amongst JRCS staff.

Finally, we would like to invite colleagues to contribute to future editions of *Learning to Fly.* Issue 2 is pencilled in for publication for the start of the new academic year. It would be great to have articles from a range of teaching staff so, if you have any ideas, let us know. More generally, if you want to get involved in helping to lead teaching and learning at JRCS and you have ideas on how we can improve further, come along to the Teaching and Learning Group*, or drop in any time to discuss in person.

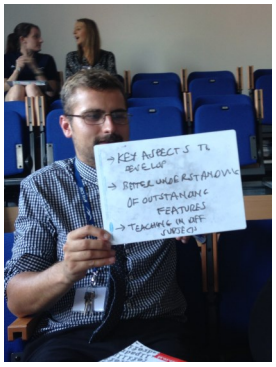
We hope you enjoy the magazine, and that it gives you some ideas and inspiration for your classrooms!

*Teaching and Learning Group meetings this year: 19th March and 21st May

THE JO RICHARDSON
SUCCESS FOR ALL
COMMUNITY SCHOOL
ACHIEVE

Teaching Squares

Before Christmas we invited colleagues to participate in the inaugural JRCS Teaching Squares Programme. The take-up was amazing with over 80% of teaching staff volunteering to join in. In all, colleagues saw over 270 hours of teaching, below is a summary of the comments made by staff at the end of the progress.



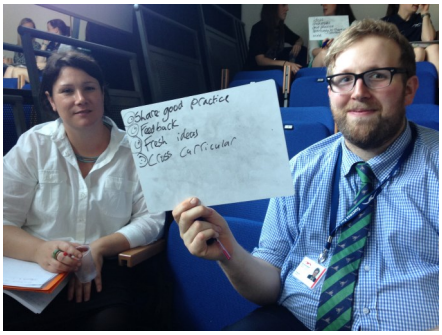
Look out for Teaching Squares II, coming after Easter!

What we said about watching learners:

- *good seeing learners in other contexts*
- *expected behaviour standards vary from teacher to teacher and can be challenging for students to accept*
- *updating teaching practice and refreshing strategies will help learners as they will experience a variety of methods*
- *often find it difficult to follow instructions*
- *we need more joined up thinking topics / aspects / units*
- *students have different attitudes to different lessons*
- *literacy skills are so important at all levels and subjects*
- *some students struggle to follow instructions*
- *have a vast range of learning environments*
- *homework is completed 'for the teacher 'instead of for the benefit of their own learning*
- *many needy learners – need to teach lessons where all feel catered for even though many are desperate for one on one*
- *engaged/ not engaged why?*
- *students thrive on positive relationships*

What we said about our colleagues:

- *very supportive*
- *great behaviour managers still struggle sometimes*
- *lots of people involved shows they care about making an impact/ improvement*
- *makes learning fun for us*
- *are we hesitant to teach from the front even if it might be the best approach*
- *passionate about subjects*

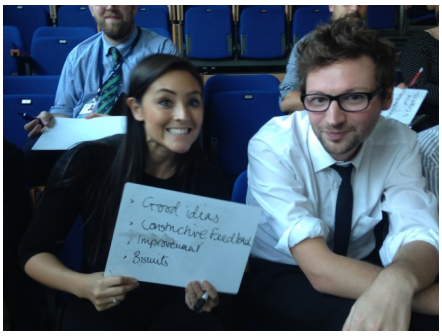


What we said about JRCS:

- *impressive how hard the staff work and how willing the students are*
- *good consistent practise across the school*
- *brave/open minded*
- *different interpretations of the bottom lines*
- *very departmental school*
- *greater need for cross curricular links eg Marxism, Feminism*
- *need for consistency of the good practise that is evident in the school*
- *do we foster independence?*
- *do the same disruptive students go from lesson to lesson being overlooked?*
- *good lessons and great resources*

What we like most about the squares:

- *much more enjoyable than formal observation*
- *makes learning fun for us and open to new experiences*
- *unequivocal success*
- *look how many teacher care about improving their practice – this was voluntary!*
- *useful opportunity*



To improve next time:

- *chance to see any one not just the square*
- *more time to organise the observations and purpose of visits*
- *I would like a greater focus on recommending ways to improve lessons*
- *I would like a focus on ways to improve lessons and an insistence that teachers should participate as students*

From the Teaching and Learning Group

Once a half-term the JRCS Teaching and Learning Group meets, normally in Business Studies. The group is voluntary and all staff are invited to drop in. The agenda changes from meeting to meeting but we always try and devote a good portion of the meeting to sharing ideas from around the school. Colleagues come along and discuss teaching strategies and resources that they have used and sometimes staff get the chance to participate themselves! Below are some of the ideas that have come out of the past couple of meetings. We would love to see as many staff as possible at the remaining couple of meetings this year. You don't have to bring ideas to share, just come along, listen and enjoy the complimentary biscuits!

Plickers https://www.plickers.com/

Plickers is an app that staff can download onto their smartphone / tablet. Students are given bar codes to hold up in response to questions. When the app is launched the camera on the smartphone reads all of the codes and provides real time updates on what different students in the group are thinking in answer to key questions. Real time AfL data, personalised down to student level. **Want to know more? See Jamie Cole in PE.**

Live Plicker update on iphone

Flip-Learning

Flip-learning is popular in charter schools in America. The principle is that students compete the knowledge acquisition before a topic is taught in class, thereby meaning that the teacher can focus on analysis, evaluation and exam skills in the lessons. Trials so far in history, English and PE have been successful. Email is the best way of sending out the homework, normally in the form of a worksheet and some links to help students find the information. Students then bring the work to the next lesson. Also, there is no escape if students are absent! **Want to know more? See David McFaul in History**

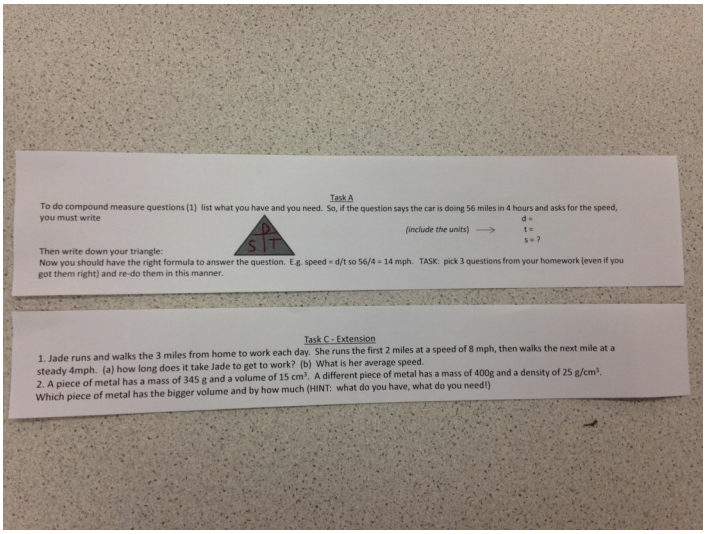
The Take Away Challenge!

Nando's homework

Personalised homework has been promoted in Business Studies through the development of the Nando's loyalty card! A range of homeworks are featured on the card; students can challenge themselves by completing more than one or by completing more difficult work. They get stamps for completing the homeworks and, when the card is complete, a prize. **Want to know more? See Mr Marks in Business Studies.**

Personalising Task Marking

In Maths, to reduce time spent writing tasks on work, Anna Moody has developed a strategy of pre-printing tasks that will address the most common misconceptions in an activity. The marking instructs students to complete task A or B or C etc, and then students collect a copy of the task from the front of the room, stick it in their book and then complete it. In large departments or if the same activities are being done by multiple classes, setting up this system can save lots of time marking in the long run. **Want to know more? See Anna Moody in Maths.**



Task A

To do compound measure questions (1) list what you have and you need. So, if the question says the car is doing 56 miles in 4 hours and asks for the speed, you must write

(include the units) ⟶ d = t = s = ?

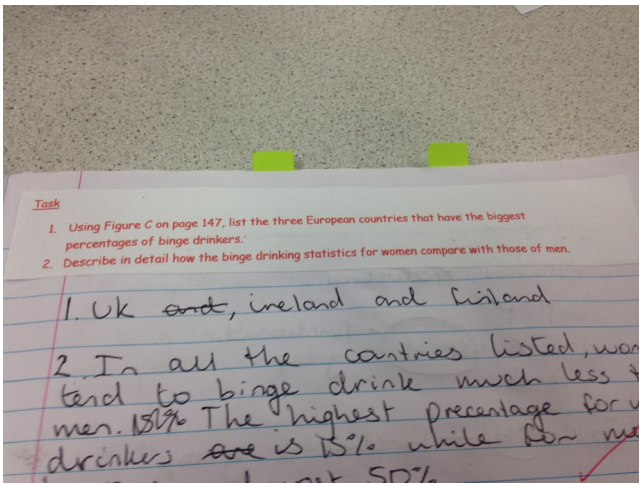
Then write down your triangle:

Now you should have the right formula to answer the question. E.g. speed = d/t so 56/4 = 14 mph. TASK: pick 3 questions from your homework (even if you got them right) and re-do them in this manner.

Task C - Extension

1. Jade runs and walks the 3 miles from home to work each day. She runs the first 2 miles at a speed of 8 mph, then walks the next mile at a steady 4mph. (a) how long does it take Jade to get to work? (b) What is her average speed.
2. A piece of metal has a mass of 345 g and a volume of 15 cm^3. A different piece of metal has a mass of 400g and a density of 25 g/cm^3. Which piece of metal has the bigger volume and by how much (HINT: what do you have, what do you need!)

Students collect pre-printed tasks to address misunderstandings



Task

1. Using Figure C on page 147, list the three European countries that have the biggest percentages of binge drinkers.
2. Describe in detail how the binge drinking statistics for women compare with those of men.

1. UK ~~and~~, ireland and finland

2. In all the countries listed, wo[illegible] tend to binge drink much less [illegible] men. 18% The highest precentage for [illegible] drinkers ~~are~~ is 15% while for m[illegible]

Students locate the tasks, complete, then move stickers to side of book

Sticking to the task!

Karolina's marking is regularly identified by students as being amongst the most supportive and useful in the school. After most lessons, she sets tasks for students in their books and leaves small stickers poking out of the top of the book. Students can, therefore, quickly find the tasks. Once they have done them the students move the stickers to the side of the book, to show that they have been completed. A great way letting students know where the tasks are and letting staff know when they have been completed. **Want to know more? See Karolina in Science**

Our next meeting is on 19th March, please come along!

Experts' Corner—Seb Hayes in History writes:

Experts' Corner is an area of the classroom which has stretch resources and activities which are specifically created to help students improve their assessment pieces. In the long term the plan is to have a permanent area for KS3 with resources for each topic, but this is still very much a work in progress!

The key focus is the work of academic historians and exposing students to academic work to improve their historical vocabularies, writing styles, analysis and their ability to develop independent judgements.

The results thus far have been promising with a number of students attempting (several very successfully) to integrate academic work in their assessment pieces.

It is also been promising to see a high volume of year 7 students using measurement language (from the continuum on my wall) and the whole school key words and the tangible impact of R2W on later assessment pieces.

Experts' Table

"Many Popular Teaching Practices are Ineffective": a summary of the Sutton Trust report

Summarised by Tom Coltman

*"*What Makes Great Teaching*",* by Professor Rob Coe and colleagues at Durham University, warns that many common practices can be harmful to learning and have no grounding in research. Examples include using praise lavishly, allowing learners to discover key ideas by themselves, grouping students by ability and presenting information to students based on their "preferred learning style".

On the other hand, some other teaching approaches are supported by good evidence of their effectiveness. Many of these are obvious and widely practiced, but others are at odds with common assumptions. Examples include: challenging students to identify the reason why an activity is taking place in the lesson; asking a large number of questions and checking the responses of all students; spacing-out study or practice on a given topic, with gaps in between for forgetting; and making students take tests or generate answers, even before they have been taught the material.

Previous Sutton Trust research shows that the quality of teaching is by far the biggest factor within schools that impacts on the achievement of children from poorer backgrounds. It found that over a school year, poorer pupils gain **1.5 years'** worth of learning with very effective teachers, compared with 0.5 years with poorly performing teachers. In other words, a great teacher can produce a whole year's extra learning.

So, what constitutes effective teaching?

Six key factors that contribute to good teaching are identified. The two factors with the strongest evidence in improving student outcomes are:

Content knowledge. Teachers with strong knowledge and understanding of their subject make a greater impact on students' learning. It is also important for teachers to understand how students think about content and be able to identify common misconceptions on a topic.

Quality of instruction. This includes effective questioning and the use of assessment by teachers. Specific practices, like reviewing previous learning, providing model responses for students, giving adequate time for practice to embed skills securely and progressively introducing new learning (scaffolding) are also found to improve attainment.

The other four elements of effective teaching have fair to moderate evidence showing a positive impact on results. They are: **classroom climate** which includes the quality of interaction between teachers and students as well as teacher expectations; **classroom management** which includes efficient use of lesson time and managing behaviour with clear rules that are consistently enforced; **teachers' beliefs**, the reasons why they adopt particular practices and their theories about learning; and **professional behaviours** which relates to professional development, supporting colleagues, and communicating with parents.

As well as summarising what the research says about effective and ineffective practices, Sutton Trust have looked at the different methods of evaluating teaching. These include: using 'value-added' results from student test scores;, observing classroom teaching;, and getting students to rate the quality of their teaching. The report finds that when done well and used cautiously, all these methods can be useful, but it warns they are easy to get wrong should not to be used in isolation to assess teaching.

The seven examples of strategies unsupported by evidence are:

Using praise lavishly. For low-attaining students praise that is meant to be encouraging and protective can actually convey a message of low expectations. The evidence shows children whose failure generates sympathy are more likely to attribute it to lack of ability than those who are presented with anger.

Allowing learners to discover key ideas for themselves. Enthusiasm for 'discovery learning' is not supported by research evidence, which broadly favours direct instruction.

Grouping students by ability. Evidence on the effects of grouping by ability, either by allocating students to different classes, or to within-class groups, suggests that it makes very little difference to learning outcomes. It can result in teachers failing to accommodate different needs within an ability group and over-playing differences between groups, going too fast with the high-ability groups and too slow with the low.

Encouraging re-reading and highlighting to memorise key ideas. Testing yourself, trying to generate answers, and deliberately creating intervals between study to allow forgetting, are all more effective approaches to memorisation than re-reading or highlighting.

Addressing low confidence and aspirations before teaching content. Attempts to enhance motivation prior to teaching content are unlikely to succeed and even if they do the impact on subsequent learning is close to zero. If the poor motivation of low attainers is a logical response to repeated failure starting to get them to succeed through learning content will improve motivation and confidence.

Presenting information to students in their preferred learning style. Despite a recent survey showing over 90% of teachers believe individuals learn better when they receive information in their preferred learning style, the psychological evidence is clear that there are no benefits to this method.

Professor Robert Coe from Durham University said:

"Great teaching cannot be achieved by following a recipe, but there are some clear pointers in the research to approaches that are most likely to be effective, and to others, sometimes quite popular, that are not. Teachers need to understand why, when and how a particular approach is likely to enhance students' learning and be given time and support to embed it in their practice."

"Given the complexity of teaching, it is surprisingly difficult for anyone watching a teacher to judge how effectively students are learning. We all think we can do it, but the research evidence shows that we can't. Anyone who wants to judge the quality of teaching needs to be very cautious."

Check out more from the Sutton Trust:

www.**suttontrust**.com

Hexagon Learning -

An instant resource to support analysis, evaluation and essay planning

The ability to select, prioritise, categorise and link evidence is a valuable skill that students learn in various subjects, especially those that require students to write essays. Using hexagons is a particularly simple and effective way of developing these skills.

The Hexagon approach for essay writing

Make a list of some points students could include in their essays. Put these into Classtools.net Hexagons Generator to create your hexagons.

Stage 1: Selection and Categorisation

Divide the class into pairs for the activity. Give each pair a copy of the hexagons for the students to cut up and organise into categories of their choice. This process can take up to 20 minutes. Encourage students to come up with no more than five categories. Students can also choose to leave out some of the hexagons if they consider them to be less important than others. Prioritisation and leaving information out is an essential skill especially in timed exams.

Spend five minutes or so comparing different categories.

Following this give each student a sheet of blank hexagons. The next challenge is to identify other factors that could be included in their essays and write those points in the blank hexagons. Share ideas amongst the class until all relevant points for the essay have been included. The newly made hexagons are added to the categories already made with the pre prepared hexagons. Sometimes this may involve adding new categories, or amending earlier categories.

Stage 2: Linkage and Prioritisation

By this stage, the students should have decided upon the main categories which could for the basis of a paragraph in an essay. It is still necessary for them to decide two things.

Firstly, students would need to decide in which order to deal with the points in each paragraph. It would not be enough to simply introduce the category title, then randomly write about each piece of evidence from the hexagons in that group. This is where the hexagons are particularly useful. The six sides mean that factors can be placed alongside each other in various combinations to highlight connections between batches of factors within categories. After students have rearranged their factors in this way, they stick them down onto sugar paper. They could then write the title of each category over each batch of hexagons, and annotate around each group of hexagons to explain why they were arranged in that particular way.

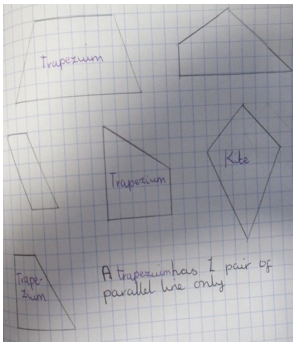
Secondly, students decide how to connect their main categories together to create an overall thread of argument. They do this by drawing arrows between the factors and explaining their connections over them.

Stage 3: Essay Writing

The final part of the process was to use the completed diagrams as an essay plan. You can at this stage photograph the diagrams and disseminate them to the whole class. Using the separate categories of hexagons students have paragraphs for their essay with a logical order and 'flow'.

Reflection and Conclusions

The 'Hexagon Approach' is effective in steering students away from narrative approaches of writing and into an analytical frame of mind. Students often rush the planning stages of their extended writing and this approach helps them to frame categories of analysis and build a command of the material. Also spending time on this planning stage provides students with the opportunity to change their initial assumptions, link factors together within and between categories, and give them the effective basis of an accomplished written piece.

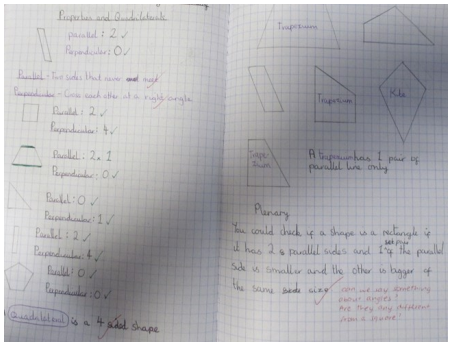


Purple Pens

Students are responding well

to opportunities to use their purple pen

across different subjects



Subject-specific vocabulary in Maths

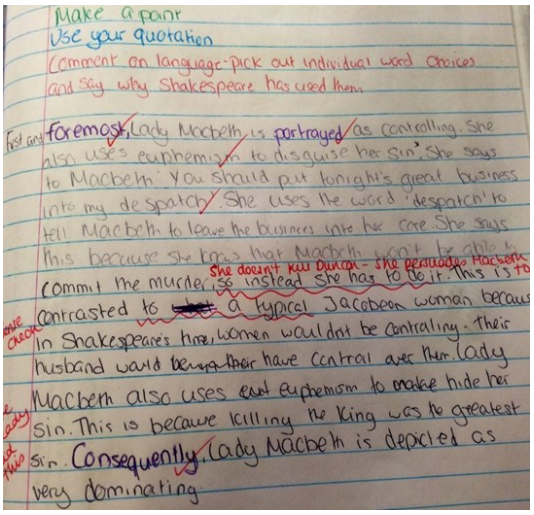
Students should use their purple pens for:

- Writing, underlining or circling JRCS key words
- Writing, underlining or circling subject-specific vocabulary
- Self or peer assessing literacy mistakes in their work
- Responding to literacy marking

Literacy Marking Code

Codes will be used to highlight literacy errors:

Code	Error	Action
Sp	Spelling mistake	Underline part of the word that is incorrect and put Sp in the margin. Maximum of three per piece of work
P	Punctuation mark missing or incorrectly used	Circle place where punctuation should or shouldn't be and write P in margin
CL	Capital letter required	Circle the letter and write CL in margin
Voc	Incorrect use of vocabulary (either technical or subject-specific vocabulary, or vocabulary used in the wrong sentence context)	Circle the word that has been incorrectly used and write voc in margin
^	Word missed out of sentence	Put ^ at point where word or phrase is missing
~	unclear meaning or incorrect grammar within a sentence	Put wiggly line under the poor expression or where it doesn't make sense
//	New paragraph needed	Put // where change is required (change of time, place, argument moves on, etc)



Key words and literacy self-correction in English

JRCS key words

Depict

Foremost

Portray

Simultaneously

Hence

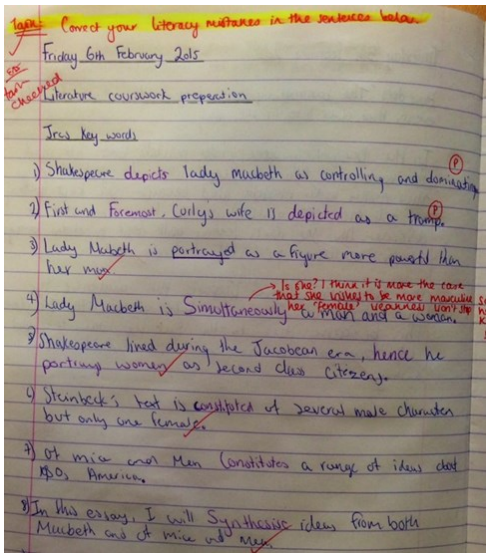
Constitute

Synthesis

Vehement

Consequently

Unequivocally



Playing the Game (that just got harder)

Progress 8 – The New Floor Standard

Tom Coltman

Ten years ago the target for secondary schools was 20% of pupils getting 5 or more passes at grade C or above – it didn't include a requirement for English or maths then either. How things have changed – the current standard is 40% getting 5 A*-C passes and that has to include English and maths (5ACEM).

Back in 2004 any school below 20% 5A*C for 3 years in succession would be closed. At that time Fischer Family Trust were producing value-added (VA) data showing the progress made by students. Interestingly, the analysis showed that – for schools below 20% - around 1 in 5 of them had value-added scores in the top quartile. This clearly shows the need to look beyond threshold (5A*-C) measures. Reports which FFT provided for DfE included analysis of overall points score as well as 5A*C. This meant that schools focussing too much on the C/D boundary could be distinguished from schools who were doing well with all of their intake.

Progress 8 provides accountability measures which focus beyond the C/D boundary. The threshold measures are not disappearing (C+ in English and Maths, English Baccalaureate) but, critically, Progress 8 is to be used for the new floor standard. 5A*C (EM) floor is a measure of attainment and, in reality, it only looks at the performance of pupils around the C/D boundary. Progress 8 focuses only on the progress made by pupils and is equally affected by the performance of pupils with high, middle and low attainment upon entry to the school.

Progress 8 comes into effect for all schools in 2016 and the key questions will be:

- What difference will the change be from 5ACEM to Progress 8?
- Will it change the number of schools below the floor?
- How will it affect Jo Richardson?

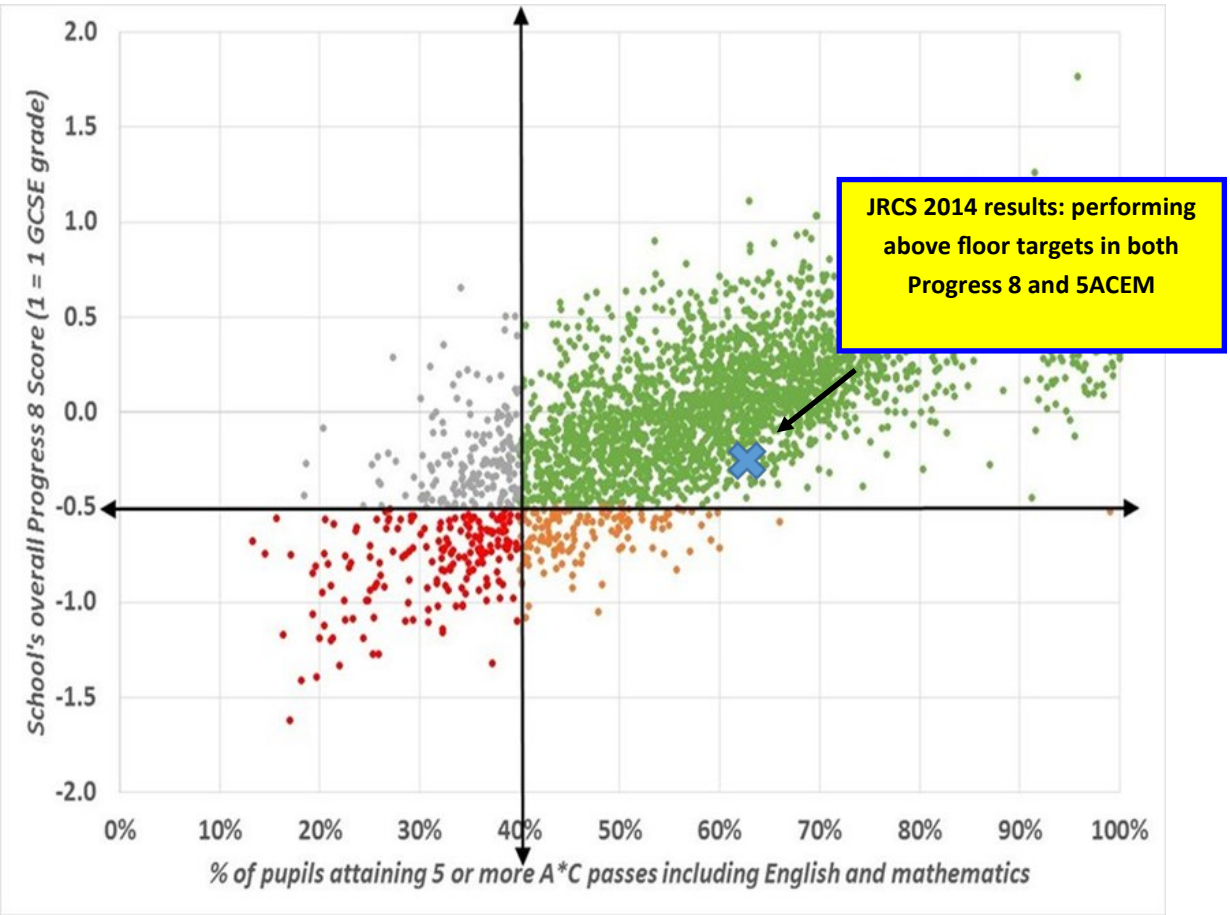
What we need to bear in mind is that there are other changes coming into effect that will also have an impact:

- Vocational subjects will no longer count as more than one GCSE. A smaller range of 'high quality' subjects count and a maximum of three vocational subjects can be included.
- In 2014 rules regarding early entry come into effect. These mean that, for the purposes of performance tables, DfE will count the first entry. In the past this was the highest grade achieved.
- From 2017 onwards, 'reformed' GCSEs graded on a 1-9 scale will be part of KS4 outcomes and, by 2020, all GCSEs (and presumably other subjects) will be assessed on this scale.

What then of the possible impact of Progress 8? The floor here is calculated in a very different way. Instead of being an arbitrary standard (40% of pupils above a threshold) it is a relative measure:

- Each pupil's attainment in a group of 8 subjects is compared with the average for pupils nationally with the same prior (key stage 2) attainment.
- The difference is divided by 10 (8 subjects but English and maths are doubled).
- If the school's Progress 8 score is more than half a grade below then it will be below the floor standard. Though that will be reviewed each year.
- The 'escape clause' provided by expected progress in English and maths no longer applies.

Progress 8 allows up to 3 high quality vocational subjects – 1 more than allowed under the 5A*CEM calculations for 2014 and 2015.



Colour	Details	Number of Schools
	Not below floor on either measure	2517
	Below floor on 5A*CEM only	175
	Below Floor on Progress 8 only	145
	Below floor on both measures	180

Progress 8 will enable schools to better understand their own strengths and weaknesses and to plan for improvement.

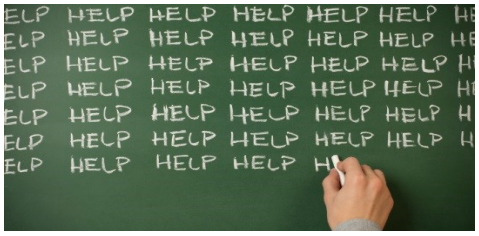
It is important, therefore, for a school/department to be aware of:

• Its' own strengths and areas for improvement.

• How the national picture will change as other schools change their curriculum and entry patterns.

Progress 8 is unequivocally a fairer better way of measuring the performance of schools as it focuses on the progress of all students and not just the C/D borderline. Outlined by OFSTED in 2013 an area of improvement for us is to ensure all students "*think deeply enough or to justify their answers.*" This may be the key to ensuring all students - especially VHPA - are making good progress. Essentially, the focus now is on residual and the biggest challenge for JRCS will be ensuring all top end students are fulfilling their potential. We have known for some time that engaging and challenging the top end is an area that we need to improve upon so perhaps when Progress 8 comes into effect in 2016 we'll be ready. The first year may be tough as our current Year 10 have a higher proportion of pink and dark pink students than any other year group so far, but we like a challenge, don't we? Bring it on!

For Students, NQTs and Beginner Teachers



The initial year in teaching can be a challenge. According to research, student achievement tends to be significantly worse in the classrooms of first-year teachers before rising in teachers' second and third years (Rivkin, Hanushek, & Kain, 2005). 15 percent of teachers leave the profession and another 14 percent change schools after their first year, often as the result of feeling overwhelmed, ineffective, and unsupported (Ingersoll & Smith, 2003; Smith & Ingersoll, 2004).

Avoid being one of these percentages. Here are some top tips for students, NQTs and beginner teachers:

Advice from JRCS former NQTs:

"Try to make all of your interactions with students positive. Pick twenty of the most irritating/poorly behaved students and make sure are twice as positive with them. Control their behaviour with your relentless positivity. "

"Make sure you use your free periods properly. Far too often a free period would have passed and I'd feel like I wouldn't have achieved anything tangible."

"Challenge lateness or lack of homework at the end of lessons. First priority is to teach the lesson and try wherever possible not to disrupt the flow teaching and learning."

"Imagine you are in your lessons.....would you enjoy them?"

"Try and be efficient with your time. If you have time in the day, do a bit of marking as that's a little bit less marking that you'll have to do in the evening."

When marking, ensure written feedback is as succinct and meaningful as possible. Marking can be a time consuming and arduous task. Don't make it harder than it needs to be. Research suggests students gain little from work littered with corrections. Be specific with your feedback, giving students one or two things to focus on. Do not write anything in books that students will not benefit from!

Try to work through things one at a time to avoid drifting between tasks. *Procrastination is the thief of time!* Always do the worst task first, giving yourself a strict time limit, just as you would with your students. This is hugely beneficial psychologically. Try not to leave tasks for long periods of time. Don't spent time worrying about things you have no control over.

Approach new theories with an open mind and always test them with a class before bragging. New techniques are only useful if they don't add extra stress to your workload, are simple for students to understand and improve the atmosphere and rate of learning in your classroom. Look out for evidence-based research – studies which have been completed through educational institutions often stand out.

Ensure you prepare exciting, engaging and challenging lessons. Forget formal observations, you're being observed by up to 30 pupils every lesson. It's your chance to put into practice all that you've learnt.

Share your passion for the subject. Pupils are much more likely to respond positively if they sense your enthusiasm for what you teach. Do not reserve a dry teacher persona for your students, give them some personality.

Accept that you are at the early stages of a journey of learning and that you will sometimes make mistakes. The important thing to do is reflect on how you can improve and allocate some time each week to your own development. Revisit notes from your teacher training on learning theories, talk with and observe colleagues that are known for making excellent use of behaviour for learning strategies, and evaluate your own practice. Make sure you think rationally about how you are getting on. If you have a bad lesson don't spend time fretting about it. Channel your energy into productivity.