

Science Department GCSE Intervention.

Intervention refers to putting in place strategies to help students to rectify any underperformance as soon as it is identified through regular, short focussed guidance and support. The most effective intervention is led by the subject teacher who has an in-depth knowledge and understanding of the student's barriers to achievement and strategies they can focus on to improve their attainment.

Common Barriers to Progress Are:

- Low attendance
- Social difficulties- poor self-esteem, difficulty working with others, feeling stressed or anxious
- Lack of academic aspiration
- Large misconceptions
- Lower progress as a result of inappropriate teaching methods, which don't meet learning needs
- Poor behaviour
- Lack of challenge resulting in boredom and a lack of focus
- Underdeveloped learning skills – features such as poor listening, easily distracted, problems grasping cognitive needs in a whole class situation, poor literacy or mathematical skills

The diagram below highlights intervention strategies that can be implemented to enhance attainment, the majority of which can be employed during day-to-day teaching.



Characteristics of Effective Intervention

Struggling Students Benefit from Classroom Intervention Strategies that....

- Include explicit, well-organized (systematic) instruction as well as opportunities to consolidate information;
- Are provided in small-group or one-on-one formats;
- Small timeframe provision on a regular basis
- Provide extended opportunities for practice, including guided, independent, and cumulative practice with teacher feedback;
- Are provided in addition to regular classroom practice;
- Include continuous progress monitoring.

Tiered Intervention Triangle.

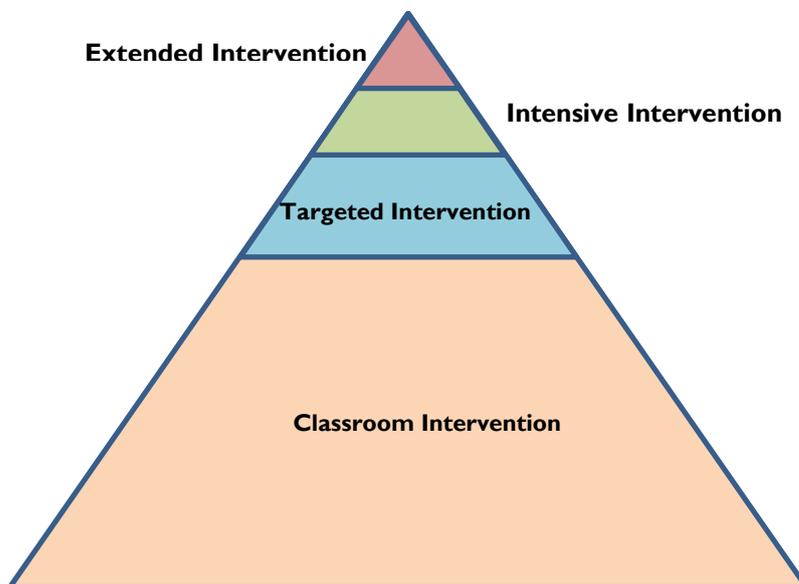


Figure 1 Based upon the RTI model

- **Tier 1** – Classroom Interventions are designed for All Students, and they should reach approximately 80% of students
- **Tier 2** – Strategic Interventions should help Some Students, an additional 15% of students.
- **Tier 3** – Intensive Interventions should target A Minority of Students, 5% of students
- **Tier 4** – Extended Intervention will apply to a Few Students, approximately 2%

The Intervention System

1. Classroom Intervention – Identification of underperformance in class.

Subject teacher led and monitored

Description: Student is struggling with a topic principle or concept

How would I know this?

This is during class teaching – talking to students, questioning students, work is incomplete, and students are disengaged, disruptive. AFL assessment during lesson is key in identifying students who are under performing.

Action(s):

1. High quality differentiated teaching, learning styles and personalised learning during the lessons
2. Learning conversation with the students concerned to include strategies that can be implemented to enhance attainment
3. Concern recorded on SIMS

2. Targeted Intervention

Subject teacher led and monitored

Description: Through formative and summative assessment in lessons it is apparent that a student has failed to understand a specific topic. To ensure that this is accurate, specific levelled criteria should be used (from lesson outcomes) and gauged against student's projected performance.

How would I do this?

Use of levelled (or graded) ALL/MOST/SOME criteria and book marking. Use of self and peer assessment and regular marking of selected pieces of work.

Action(s):

1. Targeted homework activities set. This can be in the form of Doodle questions, past paper questions, workbook pages, recommended reading from the revision guide, textbook or internet, additional specific questions
2. Phone call home to parents to inform them of a concern of underperforming. During this conversation the parents must be informed that focussed homework activities will be set for the students to complete on a weekly basis until they have demonstrated they are attaining at or near their target level.
3. Short and regular contact with students to support, guide and evaluate their progress from the targeted set work. This can take place during the lesson, a time convenient to the subject teacher or the Teaching and Learning sessions on Wednesday. Twenty minutes of the Teaching and Learning time each week will be dedicated to making contact with parents and meeting with students. This coaching should be may be on a one-to-one basis or to a small group and a short timeframe in order to make the conversation focussed and convey a sense of support as opposed to a punishment.
4. Sticker to go in planner (or note written in planner)
5. Concern recorded on SIMS by teacher and Tutor informed for I to I sessions

3. Intensive Intervention

Description: Key assessment shows understanding 2 grades/levels below students projected performance.

How would I do this?

This information can come from level assessed tasks that have been set, or interim tests. Support here should be based on consistently assigned tasks to ensure the best use of data.

Action(s):

Subject teacher led and monitored:

1. Continue with teacher actions from tier 2

Departmentally led:

1. Letter home from HOF informing of underperformance and concern and the support to be offered, HOH informed
2. Electronic academic report card issued
3. Peer mentor assigned
4. Logged on SIMs by HOF

4. Extended Intervention – Exam Preparation

Description: Predicted grade shows student being below target by 2 grades or more.

How do I make my prediction?

End of topic/rotation test and formative assessment. This test must be consistent for all students and grade boundaries must reflect those of an actual exam at the level for this student. This level of intervention is to take the form of booster sessions similar to the KS3 L6 project and led across the department as a teacher who possesses a differing teaching style.

Action(s):

Subject teacher led and monitored:

1. Continue with teacher actions from tier 3

Departmentally led:

1. Letter home from HOF informing of underperformance and concern and the support to be offered, HOH informed Student expected at revision sessions
2. Student invited to Easter Revision school
3. Parents invited for meeting or workshop
4. Booster sessions

Narrowing the Gap – Moving D's to C's.

The Issues:

There are a number of factors that frequently cause students to lose marks in exams, and for the D/C student this can mean not achieving the C grade of which they are capable. These are:-

1. Misreading the question and as a result giving an answer which misses the point;
2. Failing to tailor the exam answer to the number of marks available;
3. Extracting information inaccurately from tables, graphs, drawings, photographs or other sources in the exam;
4. Using subject-specific, often technical language inaccurately or incorrectly
5. Omitting units for numerical answers
6. Poor spelling;
7. Not making best use of time in the exam

More generally, the D/C student also exhibits weakness in exam preparation, such as:

1. Failing to organise their revision, including failing to prepare a timetable;
2. Not being able to prioritise the most important aspects to revise;
3. Spending time 'revising' while not concentrating;
4. Lacking a suite of effective revision skills and techniques;
5. Having insufficient subject notes to revise from;
6. Showing uncertainty about how to tackle the exam itself

Intervention Strategies:

Oral Feedback

A suggested sequence for giving individual oral feedback in a planned review as intervention

1. Plan feedback which is positive and specific
2. Reinforce the value and importance of the pupils' contribution

3. Focus on recent learning objectives and learning outcomes in the context of pupil targets
4. Give the pupil(s) time to reflect and respond
5. Encourage the pupil(s) to ask questions to clarify their understanding of the progress they have made
6. Identify and agree the most important next steps in learning and revise pupil targets if necessary
7. Agree immediate and longer-term actions. Clarify when these will be reviewed, by whom, and what evidence will be sought

Written Feedback:

In order to improve the quality of feedback there must be explicit expectations about it. Teachers need to explain to pupils that, in line with whole-school policy:

1. they will receive feedback on their work periodically and selectively
2. such feedback will be focused on key priorities [the learning objectives]
3. such feedback will identify what they need to do to improve
4. seeking help is an essential part of their learning and leads to useful discussion about ways of learning
5. feedback will require interactivity/action by the pupil
6. All feedback needs to be positive and specific.
7. Feedback is even better if linked to curriculum targets eg grade requirements.
8. Taking the time over constructive comments reaps rewards with student performance.
9. Mark less to achieve more!!!

Target setting:

The purposes of target setting:

1. To use sources of information, including attainment data, to focus plans on raising standards of pupil attainment.
2. To ensure pupils' prior attainment and achievement is built upon throughout the key stage.
3. To identify and focus teaching on areas of underperformance.
4. To actively support improved learning outcomes for underachieving groups of pupils.
5. The majority of GCSE subjects have pre-published sheets to aid students with their revision, using curricular targets.
6. Checklists can be created for all units of work and are helpful in reinforcing grade differences.
7. Persistent use of revision booklets reinforces good revision habits in students
8. Students need to be encouraged to set, and record, their own curricular targets.
9. Students need to be given opportunities to self-assess their own coursework and make any amendments if required.
10. It is vital that coursework pieces, once marked, are shared with the students so that they know how to improve on any future pieces

Summary of intervention strategies:

1. Intervention needs to be constant throughout Key Stage 4
2. Oral and written feedback are two of the most successful intervention methods
3. Target setting is crucial in making students aware of their progress and the next steps that they need to take to move up a grade.

Training Needs:

1. SIMS training – within the department to successfully log intervention targets and the level of intervention.
2. Behavioural concerns logged on SIMS in order to identify “Hot Spots” and resolve BfL issues. Key stage managers will be able to pick up low level disruption at a very early stage in the year and manage
3. AfL sharing good practice across the department – how to assess students during every lesson
4. Shared good practice of short effective activities that can be employed to enhance the progression with and outside the classroom
5. Produce a resource pack for the topics we know are more challenging and students find difficulty mastering.