

TEACHING LEARNERS ON THE AUTISM SPECTRUM IN THE MAINSTREAM CLASSROOM.

STRATEGIES THAT WORK IN THE MAINSTREAM CLASSROOM TO ADDRESS THE NEEDS OF THE STUDENT WITH AUTISM

Understanding Autism Spectrum Disorder

Every student is different, every student with ASD is different.

Social, behavioural and communication characteristics of ASD learners

- Weak central coherence
- Difficulty understanding non-verbal cues
- Slow pedantic language – overly detailed, problem summarizing events
- Stilted social skills – difficulty identifying the relevant social skills
- Difficulty in accessing the relevant memory
- Difficulty implementing and following organisational strategies

Girls and ASD

- Diagnosis
- Testing
- *Camouflage hypothesis*
- *Expert mimics*
- *Imitation*
- *Challenges with daily living skills*

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■ **Challenges for ASD learners**

- Low working memory
- Slow processing time
- Over sensitive to sensory stimuli
- High level of distractibility
- Poor organisational skills
- Hyper-lexia and reading fluency challenges
- Difficulties with expressive and receptive oral language
- Weak motor skills especially hand-writing skills
- Low level of social skills

■ **Positive attributes of students with ASD**

- Dependable and predictable
- Loyal, honest and trustworthy
- Strong sense of right and wrong
- Good visual and spatial memory
- Able to follow established routines
- Respond to clear directions
- Creative
- Perfectionist
- High on-task behaviours

■ **Students' perceptions of helpful support options**

1. being reminded of pending changes;
2. getting copies of things teachers wrote on the board;
3. using special interests to do projects;
4. help with organising themselves;
5. receiving rewards for jobs well done;
6. a quiet space to do assessment; and
7. 1:1 help from an adult.

Reference: Autism CRC - Report 2016 <http://www.autismcrc.com.au/download/1063/Autism%20CRC%202016%20Research%20Priorities%20Survey%20Report%20FINAL.pdf?redirect=node/571>

8.

The challenge of school

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- Reduced family involvement
- Lack of social skills becomes accentuated
- Teachers may be unaware that a student has autism
- Possible lack of student support resources
- Managing technology

Effective Teachers

- Create classrooms that meet the needs of all their students
- Set clear expectations and goals
- Actively model inclusion
- Give regular and constructive feedback

Strategies - Using effective teaching strategies for students on the autism spectrum will benefit all students

Strategies

1. **Get to know your student**
2. **Inclusion**
3. **Sensory issues**
4. **Build competencies: Organizational issues, Communication, Routines, Transitions**
5. **Teaching Strategies – chunking, pre-teaching, priming, exams**
6. **Manage Stress and anxiety**
7. **Motivate students to Learn /Rewards/Motivators**
8. **Social Strategies - Peers, Social stories, CWPT, Circle of Friends , buddy systems**

Strategy One

Get to know your student

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Ask, ask, ask
Initial fact-finding

What are the student's ...

- Strengths and weaknesses
 - Likes, special interests, challenges
 - Things that may trigger a meltdown
 - Behaviours exhibited before meltdown
 - Best way to approach situation when meltdown occurs
 - Important Sensory issues (e.g. highly sensitive to light, touch, noise etc)
- Make and use anecdotal records in your classroom
 - Document exactly what the student says and does in your classes
 - List specific actions you have taken to interact positively with the student
 - Record off task behaviours (e.g. leaving their seat) using a checklist for frequency and time
 - Identify behaviours as either on-task, off-task, disruptive or aggressive
 - Use these records to communicate with student, parents and staff to inform future decisions
 - Communicate positive behaviours more often than bad news to parents

Strategy Two

Inclusion

- Clear policy and guidelines
- Supportive and effective leadership
- Positive teacher attitudes
- All Students educated about different learning styles
- Adequate teacher - student supports in place
- Involvement of all stakeholders in decision making incl. parents
- Flexible curriculum



**CLEARING A PATH FOR PEOPLE WITH SPECIAL NEEDS
CLEARS THE PATH FOR EVERYONE!**

Strategy Three

Sensory issues

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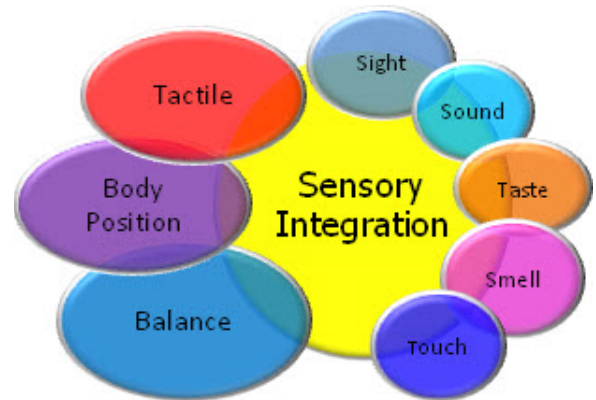
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- Sensory Processing disorder is a neurological disorder that affects taking in, processing and responding to sensory information.
- It can affect behaviour and learning
- Can affect all senses
- Can be hyper reactive or hypo reactive
- Affects learning

Sensory challenges

- Environment
- Visual
- Smell
- Taste
- Balance
- Touch
- Body awareness



Strategies to reduce sensory sensitivity

- Quiet place in classroom
- Home base to go to when needed
- Identify and avoid the sound
- Use ear plugs to camouflage sound or block sounds
- Run errands to reduce stress, provide a break

Strategy Four

Build Competencies

<p>Visual</p> <ul style="list-style-type: none"> · Daily timetable, use visuals (photographs) to illustrate timetable · Lesson outline · Use visual aides to support routines · Write lesson plan on whiteboard · Provide written instructions · Break activities into small steps · Color code activitie 	<p>Routines</p> <p>Support routines with visual aides</p> <ul style="list-style-type: none"> · Establish a clear routine for beginning and end of the day · Pre-warning for transitions between classes and activities · Avoid unstructured free time. Instead give a choice of activities e.g. lego or painting
<p>Transitions</p> <ul style="list-style-type: none"> · The more structured the routine the better · Use visuals for all transitions · Pre warn about any change · Use timers 	<p>Supports in the classroom</p> <ul style="list-style-type: none"> · What are you assessing · Modify Curriculum

Communication

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- Use concrete language; 'yes' or 'no' **avoid** 'maybe'. Be straightforward and direct.
- 'When' and 'then' e.g. when you finish writing two sentences, then you may go get a drink
- Avoid sarcasm, idiom, and metaphors. ASD students are very literal.
- Check for understanding. Say less
- Praise effort
- Don't require eye contact. Speak quietly and calmly
- Make sure you get the ASD student's attention when you want to tell them something, otherwise they may miss what you say
- Sometimes students with ASD don't respond right away – give more time to think about answers and be patient

Strategy Five Teaching Strategies

Getting the work done

- Prime – pre teach key terms, provide visual and oral texts for home
- Teach specific skills – chunking, celebrate failures, model social behaviours, use CWPT
- Manage group work
- Use graphic organisers, Visual Instructions and Reminders
- Limit materials, organize materials into containers or folders
- Provide feedback carefully – discuss with student how to do this
- Actively teach test/exam techniques
- Use 'special interests' as a key motivator

What teachers need to know before the lesson starts

- Adapt the learning to what the student needs for that lesson, on that day
- Flexible approach tailored to the student's individual needs
- Reduce barriers to success
- Understand the student and their needs
- Inclusion
- Reward effort

Effective teaching

- Prime
- Pre-teach key terms, provide visual and oral texts for home
- Chunking- Make tasks manageable
- Set realistic expectations
- Break larger tasks into achievable small steps
- Create a time-line - Allocate time to tasks
- Review progress and modify as required
- Use a visual map to plan tasks
- Identify key steps and how to achieve them
- Work backwards from your end goal
- Model mistakes and celebrate failures
- Show how teachers/role models cope with frustration
- Approach errors as opportunities to learn
- Make spelling errors
- Start again

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- Discuss how you and other students have learnt from their mistakes
- Use anecdotes
- Provide feedback carefully – discuss with student how to do this

Strategies for writing

- Support language by providing concrete examples and explicit instructions
- Assist organisation with visual supports to assist in organizing and supporting ideas
- Use physical prompts to break inertia – with younger students hand contact may be appropriate, for older students use non-invasive cues
- Sensory regulation – instigate movement breaks before settling to write and to reward on task behaviours

Autism is a communication difficulty = Reduce words, use visuals

Exams - Key Difficulties

- Managing Anxiety
- Not understanding why, they need to sit an exam
- Not understanding exam questions: key words, vocabulary, marking schemes and how they work, actively teach how to answer questions
- Sensory issues
- Difficulty staying on task
- Supporting students during the exam period

At home

- Teach relaxation techniques eg smiling minds
- Ask the school to remind the ASD student about using relaxation techniques
- Keep special interest items at home to avoid distractions
- Provide good nutrition
- Encourage regular physical activity
- Be available to offer support to your ASD child
- Display exam timetable at home

Teachers

- Weekly study plan for whole course
- Exam timetable
- Explain how to prepare for exams – revision lessons and practise papers
- Complete practise papers in class
- Social story for exams
- Try to meet your student at the start of each exam to reassure them
- Special arrangements for exams
 - Extra time
 - To sit in a smaller room or to sit alone
 - To use technology e.g. word processing
 - Support teachers to act as prompts
 - Use same supports in internal as external exams to establish routines
 - All must be requested in advance

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Strategy Six Managing stress and anxiety

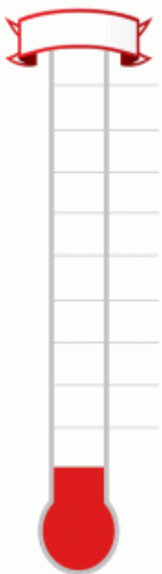
Manage Stress and anxiety

- 85% of 18 year olds on the AS will develop anxiety
- Greatest challenge to success
- Disability of trust
- Slow processing means learners may be unaware of their anxiety as it develops
- Triggers for stress – change, social situations, sensory experiences, any unpredictable event
- Teach the learner with autism to recognise anxious feelings
- ASD children are easily over-stimulated and slow to recover once they are over stimulated
- Behaviour problems are often a sign that the child is too stressed by sensory stimuli
- Use a stress thermometer to allow the ASD student to monitor his stress level in your class everyday
- Allow the ASD student to establish effective strategies to manage their own stress. Either a “home base” or by leaving class to get a drink or visit a trusted teacher.



Anxiety busters

- Measurement of heart rate using fitbit HR
- Use pre-identified stress busters - Routines and rituals to restore calm
- Establish a home base
- Confront rituals that may lead to an increase in stress levels
- Know where to go for help
- Energy bank – withdrawals and deposits
- ‘This is me’ book – lists qualities in personality and abilities
- Special interests – create an alternative world, sense of identity
- **Stress thermometer**
- Motivate your students - Use appropriate rewards
- Use ‘special interests’ as a key motivator



Exams - Key Difficulties Strategies for Exams

Key Difficulties

- **Managing Anxiety**
- **Not understanding why, they need to sit an exam**
- **Not understanding exam questions**

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- **Sensory issues**
- **Difficulty staying on task**

Anxiety:

- Change in routine
- Unstructured time esp during swat vac
- Establish a clear timetable for revision
- Plan revision tasks carefully cater to learning style preferences
- Prioritise which exams to be taken
- Beware of hyperlexia check for understanding and aptitude
- Perfectionism and fear of failure

Motivation

- ASD learner knows that have the knowledge why do they need to prove it?
- Need context

Understanding exam questions

- Need to begin in year 7
- Teach key words, vocabulary, marking schemes and how they work, actively teach how to answer questions
- Literal approach may lead to misunderstand the question e.g. discuss the language used in Macbeth? It is English!
- Teach exam language

Sensory Issues

- Large room, lights, smells, provide own space

Staying on task

- Need strategies, support teacher

Motor skill difficulties

- Esp fine motor skills, dictation may be a possibility too, need report to support these interventions prior to any formal exams through VCAT

Special interests

- Can dominate thinking sometimes this can help in exams but usually students should be encouraged to use interest as a reward.

Supporting the ASD student

Teachers

- Weekly study plan for whole course
- Exam timetable
- Explain how to prepare for exams – revision lessons and practise papers
- Complete practise papers in class
- Social story for exams

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- Try to meet your student at the start of each exam to reassure them

At home

- Teach relaxation techniques eg smiling minds
- Ask the school to remind the ASD student about using relaxation techniques
- Keep special interest items at home to avoid distractions
- Provide good nutrition
- Encourage regular physical activity
- Be available to offer support to your ASD child
- Display exam timetable at home

Special arrangements for exams

- Extra time
- To sit in a smaller room
- To sit alone in a room
- To use technology e.g. word processing
- Support teachers to act as prompts
- Use same supports in internal as external exams to establish routines
- Must be requested in advance
- *We cannot stress enough the importance of keeping records from early years to support accommodations requested – OT reports, psychologist reports are all needed to request any accommodations in Victoria*

Try to meet your student at the start of each exam to reassure them

Strategy Seven

Rewards/motivators

- Time to spend on their favourite activity (often a computer based activity works well)
- Time devoted to special interests- time on their own
- Reward or Sticker chart/communication diary

Strategy Eight

Social Success

- Promote understanding with all staff and students to increase empathy
- Have strategies that all staff can access ie yard duty cards
- Set up a 'safe place'
- Lunch time clubs!!!
- Make a schedule for each day of the week what the student will be doing at recess and lunch

Social Skills - THE KEY TO SUCCESS IS SOCIAL

Social Stories

- Used to support the ASD student and provide guidelines for appropriate behaviours

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- Written with the student
- Stories are revisited regularly
- Stories enable the student to make good choices in stressful situations
- Stories may be shared with peers to increase empathy

Reminder all social stories need to be written with the student these are examples *only* !

Sentences

- *Descriptive* - Describe what people do in particular social situations, and clearly define where a situation occurs, who is involved, what they are doing, and why
- *Directive* - Direct a person to an appropriate desired response. Then state, in positive terms, what the desired behaviour is.
- *Perspective* - This type of sentence presents others' reactions to a situation so that the individual can learn how others' perceive various events. These describe the internal states of people, their thoughts, feelings, and mood
- *Control* - These sentences identify strategies the person can use to facilitate memory and comprehension of the social story.

<http://carolgraysocialstories.com/social-stories/>

- Descriptive - Sometimes at school I don't know what to do.
- Directive - That's ok. I will take two deep breaths and tell myself it's ok. I can ask _____ to help me.
- Perspective - I can say, "I don't understand what to do." _____ will tell me and I will listen.
- Control - I will work on asking for help when I don't know what to do.

Social Stories for exams:

About exams

Sometimes teachers give a test or exam to see what students have learnt in lessons.

You can be given a test or exam in any subject you study at school.

When a teacher tells the class, we have a test or exam they often tell students what information will be covered.

It is helpful to listen, to what the teacher said and do some revision.

Sometimes students feel nervous before doing an exam.

It is okay feel nervous.

During an exam

Sometimes teachers give tests or exams for students to complete.

During exams, it's important to try think about the questions and how to answer them.

That way people can do their best in the exam.

Later, when exams are finished, students may want to think about their special interests.

It is okay to think about my special interests after the exam.

I will try to think about exam questions and answers during the exam

Class-wide Peer Tutoring (CWPT)

- Students working in small groups to complete a set task

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- Keep activities short maximum 20 minutes
- Reward group work skills and effort not just product
- Support active listening skills
- Monitor each group in turn and track on task behaviours
- Provide feedback

Success in the playground

- Promote understanding with **all** staff and students to increase empathy
- Have strategies that are easily accessible for all staff. i.e. yard duty cards
- Set up a 'safe place' for the student
- Lunch time clubs!!!
- Make a schedule for each day so they know what to expect and you will soon see where they need more support
- Open your classroom
- Peer support programs in the playground
- Organised play especially in Primary schools can reduce aggression in the playground by over 50%
- Games should be cooperative.
- Use Peer leaders or older buddies to act as mentors

Circle of Friends

- A resource group for students who meet regularly to support the ASD student – ASD student, peers, teacher-facilitator
- The circle sets goals and develops strategies to support the student
- Group members volunteer to participate
- Regular meeting time
- Benefits all students as develops inter-personal skills

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APPENDIX

Teaching Resources -

Part 1

Supports for Written assignments: the need to be specific

Executive function deficit – inability to plan or organise effectively – trouble starting, staying on task, completing the task

Practical examples:

1. **Scaffolding assignments**
2. **Using PEEL for factual essays**
3. **Creative Writing**
4. **Teaching inference**
5. **Writing to argue, inform, persuade and advise using GAPS**
6. **Argument writing – two points of view**
7. **English Literature**
8. **Poetry Analysis**

Reduce words, use visuals

Think about Lego instructions – no words!!

Part 2 Supports for

1. **Literacy and Maths**
2. **General Knowledge**
3. **Hyperlexia**
4. **Verbal Instructions**

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Part 3 Class Wide Peer Tutoring Activities

Strategies adapted from Canavan, Cary, Supporting Pupils on the Autism Spectrum in Secondary Schools, A Practical Guide for teaching Assistants, Routledge, London, 2015

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Part 1

Supports for Written assignments: the need to be specific

1. Scaffolding Assignments – use Templates

Name: Subject: Teacher: Assignment title: Date set:	Plan -
Complete by... Number of words... no less than.... words no more than...words remember to...	You have now completed your task. Hand, it in to....

2. Using PEEL for Factual Essays

PEEL

Point
 Evidence
 Explain
 Link

POINT	EVIDENCE	EXPLAIN	LINK

3. Creative Writing

1. Set the scene
2. Introduce the characters
3. Create a problem or challenge include dialogue
4. Describe the conflict/issue

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5. The climax/resolution

Where? scene	
Who? characters	
What happens? How? Why? The Plot The conflict	
The climax Then end the story	

4. Teaching Inference

Reading between the lines.


John left the house carrying his bucket and spade.

How do you know this? What is the clue to the inference he is going to the beach?


He is carrying his bucket and spade.




Inference

Read the text	I know these FACTS!	The CLUE is 	I conclude the INFERENCE is...
Put text here			

I predict...

Read the text	I know these FACTS!	The CLUES are 	I predict that this will happen...
Put text here			

Inference...

Read the text	I know these FACTS!	CLUES 	INFERENCE
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Put text here			
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5. Writing to argue, inform, persuade and advise using GAPS

GAPS

Genre (type of writing: story, report, analysis)

Audience (Who are you writing for?)

Purpose (Why are you writing this?)

Style (What style or form should it take to serve the purpose and appeal to the intended audience?)

Templates – Genre, audience, purpose, style

Essay title	
Key words	
Genre – the type of text I will be writing is:	
Audience – the people who are going to read this are:	
Purpose – I am writing this to:	
Style – therefore, I will write in a friendly/ formal/humorous.	
Writing devices, I will use are (rhetorical question, repetition, personal experience, statistics, facts, opinion, appeal to reason)	
Vocabulary – words I will use	

6. Argument writing – two points of view

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Introduction: the question / the idea is/ the issue is...		
It is often said...	This may be true	This argument does not convince me....
It has been suggested...	nevertheless	I am convinced that...
Opponents of...say that...	However,	I disagree with this because ...
Advocates of this...say...	Alternatively,	Despite that.
To sum up... Finally,... therefore, I would argue that...		

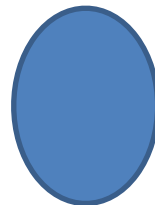
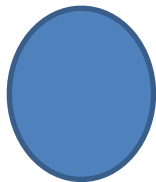
7. English Literature

Character analysis

Character's name	
Personality fact	Evidence

Comparing characters

Draw the characters here:



Character	Character
Fact	Fact
Evidence	Evidence
Fact	Fact
Evidence	Evidence

8. Poetry analysis

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- **Content** – summary of what the poem is about
- **Aim** – the intention of the poet
- **Theme** – the idea of the poem and the author’s feelings about it
- **Syntax** – the position of the words relative to each other
- **Diction** – choice of words and use of words to express meaning
- **Imagery** – illustrated, metaphors, simile, mental pictures
- **Rhythm** – sound, metre, pattern, iambic pentameter
- **Rhyme**
- **Tone** – expresses a particular feeling or mood
- **Form** – structure and organisation
- **Opinion** – your opinion and why

Part 2 Further resources

- 9. Literacy and Maths**
- 10. General Knowledge**
- 11. Hyperlexia**
- 12. Verbal instructions**

1. Literacy and Maths

Need to teach mathematical terms

Challenge of low working memory

Need to teach how to keep track of the answer as they move through different parts of the maths problem –

Parts of the question	Calculate	answer

2. General knowledge

Lack of knowledge can lead to misunderstandings e.g. in a wealthy landlord’s house where is the dishwasher – no historical context

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3. Hyperlexia

Hyperlexia, also, problems with Ambiguity, figures of speech – ask questions to check understanding

Use reading blind to focus attention – just two bits of paper covering excess text so you can read a bit at a time

4. Verbal instructions

- Use sparingly, visual instructions
- Teach key words and how to address them
- Ask questions carefully...tell me, write down, show me, list, explain, describe, plan,
- Be specific, use numbers and focus attention on the theme

Part 3 Class Wide Peer Tutoring Activities

Using Talk the Text Resources

- 1. Science: Sequencing text – what happens to ice when heated (Science)**
- 2. Science: Understanding what the question is asking you to do?**
- 3. Handout Maths: Dominoes for the numbers system**
- 4. Handout Art: Matching related vocabulary to key terms**
- 5. Handout Maths: Clumping activities to activate prior learning**
- 6. Handout History: Never-heard-the-word grid for the language of international conflict**
- 7. Handout English: Sequencing events activity – Macbeth**
- 8. Handout French: Sequencing conversation activity**

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All Resources adapted from: Strong, Julia, Talk for Writing in Secondary Schools, McGraw-Hill Education, 2013

Science: Sequencing text – what happens to ice when heated

----- ✂ -----
At the beginning of the experiment, the thermometer in the beaker containing the ice read -10°C .

----- ✂ -----
Once the lit Bunsen burner was placed below the beaker, the temperature rose steadily to 0°C .

----- ✂ -----
However, at this point, for a few minutes there was both ice and water in the beaker but there appeared to be no change in the temperature of the water.

----- ✂ -----
This can be explained by the fact that particles in a solid are packed closely together. As a solid melts, the energy transferred is used to pull the particles apart.

----- ✂ -----
As the particles in a solid are heated, they vibrate more and the temperature rises. This is because, when all the particles are pulled apart, they are freer to move.

----- ✂ -----
Thus as more energy is put in, they move faster and faster causing the temperature to rise. **In other words**, they have more kinetic energy.

----- ✂ -----
The thermometer then showed a steadily increasing rise in temperature.

----- ✂ -----
After x minutes, the water reached 100°C (boiling point) and soon started to boil furiously.

----- ✂ -----
 (Developed in collaboration with Simon Cossutta, science teacher, Cardinal Newman School, Brighton)

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Science: Understanding what the question is asking you to do?

Command word	Explanation of its meaning (in context of science exams)	Example answer to illustrate what the command requires
1. Calculate	Use the numbers given in the question to work out the answer. Always show your working – marks may be awarded for the method even if the final answer is wrong.	<ul style="list-style-type: none"> Mass of N $1 \times 14 = 14$ $(14/135) \times 100 = 10.37$ Percentage of nitrogen = 10.4%
2. Compare	Describe (explain) the similarities and/or differences between things. Don't just write about one.	<ul style="list-style-type: none"> Generating electricity for an immersion heater burns fossil fuels, which releases carbon dioxide into the atmosphere but solar energy doesn't release any extra carbon dioxide. Solar energy is a renewable energy source, which also means that we are conserving fossil fuels, which are in danger of running out. Solar energy does have disadvantages because it needs the daylight and some countries don't have enough hours of sunlight, like Scotland in the winter. This means there will be times when not enough hot water is available for the household, whereas an immersion heater can supply hot water all of the time.
3. Complete	Fill in the gaps. Answers should be written in the space provided, e.g. on a diagram, in spaces in a sentence or in a table.	<p>(a) The particles in a solid vibrate about fixed positions.</p> <p>(b) The particles in a gas move at high speed in any direction.</p> <p>(c) The particles in a solid are arranged in a pattern.</p>

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<p>4. Describe</p>	<p>Recount facts, events or a process in an accurate way (explain what happened). For example, an experiment you have done. You may need to give an account of what something looked like, or what happened, e.g. a trend in some data.</p>	<ul style="list-style-type: none"> In the beginning, dust particles and gases are pulled together by the force of gravity. As the atoms of hydrogen gas are forced together, the nuclei collide and nuclear fusion begins. The star becomes stable as the forces acting inwards and the forces acting outwards are balanced. Eventually it runs out of hydrogen, so the star starts to cool and becomes a red giant. Then it starts to shrink under its own gravity and, as the material comes closer together, the temperature rises and the star glows much brighter as a white dwarf.
<p>5. Evaluate</p>	<p>Use the information supplied (or your own knowledge and understanding) to explain the evidence for and against and draw conclusions. This goes further than 'compare'.</p>	<ul style="list-style-type: none"> This trial involved large numbers, so that would have given valid results. It was also a good trial of the general population because if poor uneducated women could make it work, it would be reliable. However, the trial was not very ethical by today's standards because we don't know that the women gave informed consent, and they were not told it was experimental or that there could be side effects. The trial was not well designed, as there was no placebo control group and they did not do pre-trials to find the best dose and check for side effects. I believe that this was an unethical trial.

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<p>6. Explain</p>	<p>Make something clear, or state the reasons for something happening. The points must be linked coherently and logically. The answer should not be a simple list of reasons.</p>	<ul style="list-style-type: none"> The molecules in the egg yolk have a 'head' part that dissolves in water, but a long 'tail' part that dissolves in oil. A large number of these molecules surround the oil droplet and so it can remain suspended in the water as an emulsion, which is stable. The egg yolk molecules act as an emulsifier.
<p>7. State, give, name, write down</p>	<p>Only a short answer is required, e.g. a single word, phrase or sentence. (Only write the specified number of answers, or you may lose marks for any wrong examples given.)</p>	<ol style="list-style-type: none"> It is taken in by plants to use in photosynthesis. It dissolves in the oceans. It is used by marine organisms to make skeletons and shells, which fall to the bottom of the sea and eventually get covered up and compressed to make limestone.
<p>8. Suggest</p>	<p>Apply your knowledge and understanding to a new situation putting forward an idea tentatively, based on scientific knowledge and/or principles, rather than stating a proved fact. There may, therefore, be more than one correct answer.</p>	<ul style="list-style-type: none"> The particles might be small enough to pass through the skin and they might be toxic inside the body.
<p>9. Use the information in the passage/ diagram/ graph/ table to ...</p>	<p>Your answer must be based on the information given in the question. (If the information given in the question is not used, no marks will be given.)</p>	<ul style="list-style-type: none"> Steam is made in part D Oil from the plant material is vaporized in part C Steam and oil vapour are condensed in part A

(Adapted from AQA's 'Command Words for GCSE Sciences')

Handout Maths: Dominoes for the numbers system

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proportional to	index notation	integers	index law
exponent	percentages	roots	compound interest
upper bound	decimals	powers	lower bound
constant	ratio	index	reciprocal
greater than or equal to	fractions	calculation	less than or equal to
indices	significant figures		

Handout Art: Matching related vocabulary to key terms

Artist's intention	exaggerate express	distort explore	recreate evoke	reflect suggest
Mood	happy frightening	sad awesome	haunting entertaining	evocative nostalgic
Form/ composition	balanced design	symmetrical angular	arrangement curved	composition foreground
Use of tone, colour, texture	vivid clashing	sombre pastel	bright matching	dull rough

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Style	technique realistic	abstract surrealistic	cubist pop art	impressionist graphic
Medium	watercolour clay	chalk found objects	charcoal oils	textile video camera
Technique	shading printing	weaving rubbing	sculpting dyeing	blending drawing

(Adapted from material developed by the Art department at Hampstead School, Camden, London)

Maths: Clumping activities to activate prior learning

Words related to circular shapes	Words related to multi-sided shapes (more than 3 sides)	Words related to triangles	General 2D/3D words
radius	square	triangular	regular
diameter	rectangle	three-sided	edge
circumference	kite	isosceles	face
concentric	parallelogram	equilateral	surface
spherical	rhombus	scalene	angle
cylindrical	oblong	congruent	centre
curved	pentagon	pyramid	right angle
semi-circle	polygon		line

Handout History: Never-heard-the-word grid for the language of international conflict

Listen carefully while the words below are read to you and used in context – then fill in the appropriate column.

Key words	Never heard the word before	Heard it but not sure of its meaning	Know what it means and can explain in context – jot down your ideas here
1. tension			

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2. European powers			
3. offensive			
4. nationalism			
5. conflict			
6. alliance			
7. strategic			
8. rivalry			
9. authority			
10. diplomacy			
11. independence			
12. assassination			
13. militarism			
14. imperialism			
15. crisis			
16. interpretation			
17. entente			
18. reconstruction			
19. expansionism			
20. casualties			
21. ultimatum			
22. polarised			
23. intervene			
24. unavoidable			
25. policy			
26. consequences			
27. reinforce			
28. factors			

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29. hostility			
30. aggression			

Handout Science: Never-heard-the-word grid for a unit on health

Listen carefully while the words below are read to you and used in context – then fill in the appropriate column.

Warning: Beware of tricky words that have a very different everyday meaning from their meaning in a science context. These tricky words are **highlighted** and marked with an **asterisk***.

Key words	Never heard the word before	Heard it but not sure of its meaning	Know what it means and can explain in context – jot down your ideas here
1. bacteria			
2. vaccination			
3. active immunity			
4. addiction			
5. alcohol			
6. alveoli			
7. white blood cells			
8. antibiotics			
9. antibodies			
10. breathing rate			
11. cancer			
12. carbon monoxide			
13. cell division			
14. correlation			
15. cardiovascular system			
16. drug			

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17. tar			
18. viruses			
19. respiratory system			
20. inspire			
21. expire*			
22. immunity			
23. immune system			
24. microbes			
25. nicotine			
26. passive smoking			
27. symptoms			
28. resistant			
29. infections			
30. tumour			

(Developed with the support of Julian Klafkowski, science teacher, Prescott School, Knowsley)

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Handout English: Sequencing events activity – Macbeth

	Enter 3 witches	<i>'Fair is foul Foul is fair.'</i>	Macbeth defeats the rebels
<i>'Brave Macbeth – well he deserves that name –'</i>	Macbeth and Banquo meet the three witches.	<i>'All hail, Macbeth, that shalt be King hereafter.'</i>	Duncan makes Macbeth the Thane of Cawdor.
<i>'Stars hide your fires; let not light see my black and deep desires.'</i>	Lady Macbeth reads the letter from Macbeth.	<i>'too full of the milk of human kindness.'</i>	Duncan arrives at Macbeth's castle.
<i>'This castle hath a pleasant seat.'</i>	Lady Macbeth accuses Macbeth of cowardice.	<i>'I dare do all that may become a man.'</i>	Macbeth reflects on killing the king.
<i>'that but this blow might be the be all and the end all here'</i>	The Macbeths prepare to murder Duncan.	<i>'Is this a dagger that I see before me ...'</i>	Lady Macbeth washes the blood off their hands.
<i>'A little water clears us of this deed.'</i>	Macbeth starts to feel pangs of guilt.	<i>'To know my deed, 'twere best not know myself.'</i>	Malcolm and Donalbain flee.
<i>'There's daggers in men's smiles.'</i>	Violent weather reflects the violent deeds.	<i>'Dark night strangles the travelling lamp.'</i>	Macbeth's guilt and anxiety increase

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<i>'To be thus is nothing, but to be safely thus.'</i>	One of the murderers reports that Banquo's son Fleance escaped.	<i>'Then comes my fit again.'</i>	Banquo's ghost appears at the feast.
<i>'This is the very painting of your fear.'</i>	Macbeth revisits the witches.	<i>'for none of woman born shall harm Macbeth.'</i>	Guilt drives Lady Macbeth to madness.
<i>'Unnatural deeds do breed unnatural troubles.'</i>	Macbeth learns of his wife's death.	<i>Tomorrow and tomorrow, and tomorrow ...'</i>	Enemies encircle Macbeth.

(Adapted from work produced by the English department at Mexborough School, Mexborough)

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Handout Maths: Never-heard-the-word grid for numbers and the numbers system

Listen carefully while the words below are read to you and used in context – then fill in the appropriate column.

Warning: Beware of tricky words that have a very different everyday meaning from their meaning in a maths context. These tricky words are **highlighted** and marked with an **asterisk***.

Key words	Never heard the word before	Heard it but not sure of its meaning	Know what it means and can explain in context – jot down your ideas here
1. exponent			
2. greater than/ equal to			
3. less than/ equal to			
4. significant figures			
5. decimals			
6. upper bound			
7. lower bound			
8. integers			
9. power*			
10. roots*			
11. index			
12. indices			
13. index law			
14. index notation			
15. standard index form			

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16. fractions			
17. percentages			
18. ratio			
19. proportion			
20. proportional to			
21. calculation			
22. compound interest			
23. constant			
24. reciprocal			

(Adapted from material developed by the Maths department at Bishop Stopford School, Enfield)

Handout French: Sequencing conversation activity

*	Comment tu t'appelles?	Je m'appelle Jean-Michel.	Ça s'écrit comment?
J-E-A-N M-I-C-H-E-L.	Il y a combien de personnes dans ta famille?	Dans ma famille, il y a quatre personnes.	Tu as des frères et des soeurs?
J'ai une souer mais je n'ai pas de frère.	Comment s'appelle ta soeur?	Elle s'appelle Christine.	Quel âge a-t-elle?
Elle a six ans.	As-tu un animal à la maison?	J'ai un chat.	Il s'appelle comment?
Il s'appelle Felix.	Il a quel age?	Il a un an.	Tu as un chien?

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Non, je n'ai pas de chien.	Qui est-ce?	Ç'est ma mere.	Elle est comment?
Elle est super!	Qu'est-ce-que c'est?	Ç'est un stylo.	Tu as une gomme?
Non - mais j'ai une règle!	Quelle est la date d'aujourd'hui?	Ç'est le 10 Decembre.	Ça va?
Bien merci. Au revoir!	*		

(Adapted from work by Gaby Simons, Languages department, Burnham Upper School, Buckinghamshire

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RESOURCES:

If you like to listen to **podcasts**, try:

The Autism Show, Ted talks esp TED Education, Conversations (you hav eto search but there are good talks here from interesting people)

Facebook users check out

NESTSEducation and Autism CRC, Cult of Paedagogy, Yellow Ladybirds (girls with ASD), Sue Larkey

Books

If you have an hour read Naoki Higashida's memoir "The reason I jump"

and if you really want to understand ASD read Prizant, Barry " Uniquely Human"

websites

<http://thereasonijump.com/>

<http://barryprizant.com/uniquely-human/>

<https://suelarkey.com.au/> great free resources

<http://www.autism.org.uk/> here you will find great videos to show your classes and peers

<http://www.autismcrc.com.au/> leading researchers to stay up to date read here

TV Shows

The A Word made by the BBC on Foxtel UK mini series – really great, bring tissues.

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