



The Crystal Maze

or

The ITEC NorthEast Biodome
at St Mary's



Brief history/context:

- Academic year 2015 -2016 two Y5 children have a terrible time and are at loggerheads with each other all year.
- Constant meetings with parents
- Teacher resigns due to the stress
- One set of parents go to Ofsted
- September 20th 2016 we receive a No-Notice Safeguarding Inspection



- The Inspection finds we have no issues with safeguarding at all.
- We take stock of our provision.
- We decide to use the Inclusion Quality Mark to assess our provision and as a standard to work towards.
- We re-evaluate our curriculum



The Inclusion Quality Principles



- Promotes access and diversity
- Raises achievement for all
- Creates an environment for all to succeed
- Improves the inclusive nature of all schools



The school is situated alongside the largest industrial park in the north east with the likes of:

- Hitachi
- Husquavana
- 3M
- Gestamp
- ITEC
- Crafters Companion (CEO is the newest Dragon)
- PalRam

Pupil Premium hovers around 33%



As a staff we looked at the figures and felt there were at least two possible reasons for the high Pupil Premium:

1. The locals didn't have the skill set to work in the industries on their door step
2. The work ethic was missing

We decided to look at the skill set.



As a staff we took a speech by Pope Francis as our starting point:

"A path that leads to the three languages that a mature person needs to know:

the language of the mind,
the language of the heart,
and the language of the hands.

All in harmony.

In other words, think of what you feel and do;
listen to what you think and what you do;
and do well what you think and do.

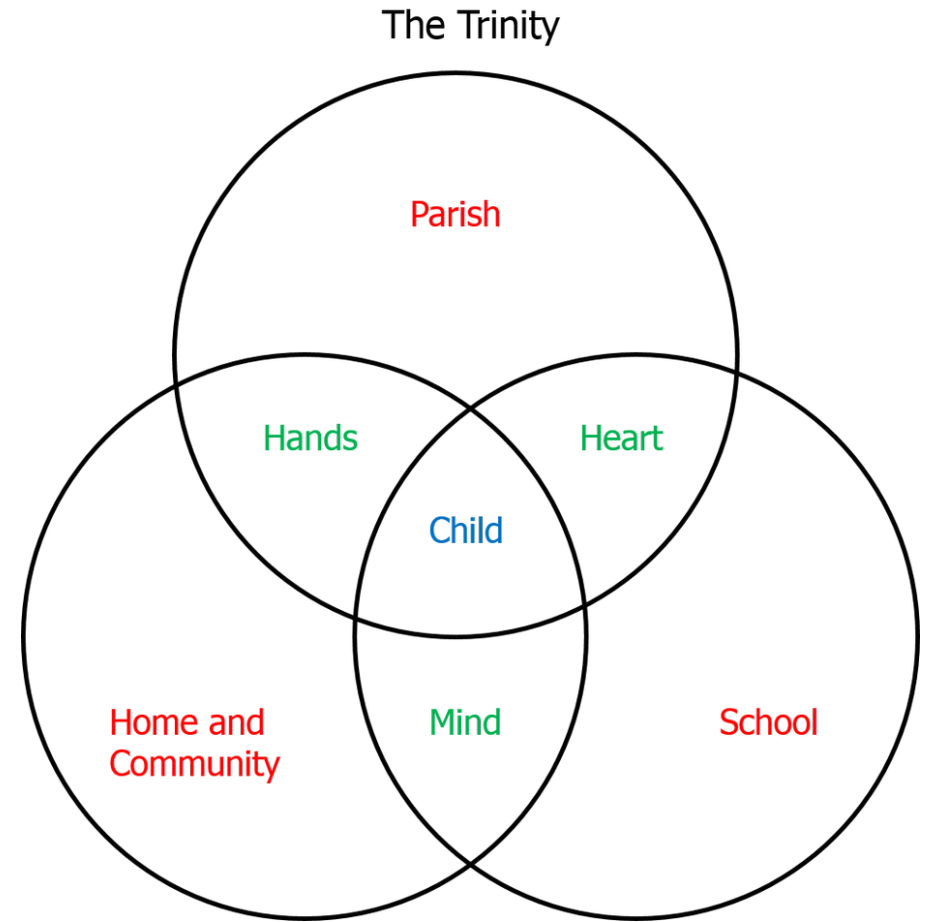
The three languages, in harmony and together."



Being a church school we work with the parish along with the home and community.

Our 'intent' was that we needed our children to

1. Be caring - so undertake charity and community work.
2. Be empathetic – to people, situations and feelings generally.
3. Be capable of making a difference at whatever they aimed to be when leaving statutory education.



As most of the industries in the town are science and engineering based we decided to massively increase the STEM content of our curriculum at the same time address a general feeling of low self-worth and in some incidents low aspirations, through work on resilience and mental health.



As the Head I was lucky enough to be part of the local Maths Hub visit to Singapore.

- Following the visit, Singapore Maths – ‘Inspire’ was introduced into school.
- We have had it in school for four years.
- The impact is only just starting to move through the school.
- Where it is taught consistently, it is having an impact
- If there is a high level of staff absence or movement the knock on effect is huge.



Using Model Drawing

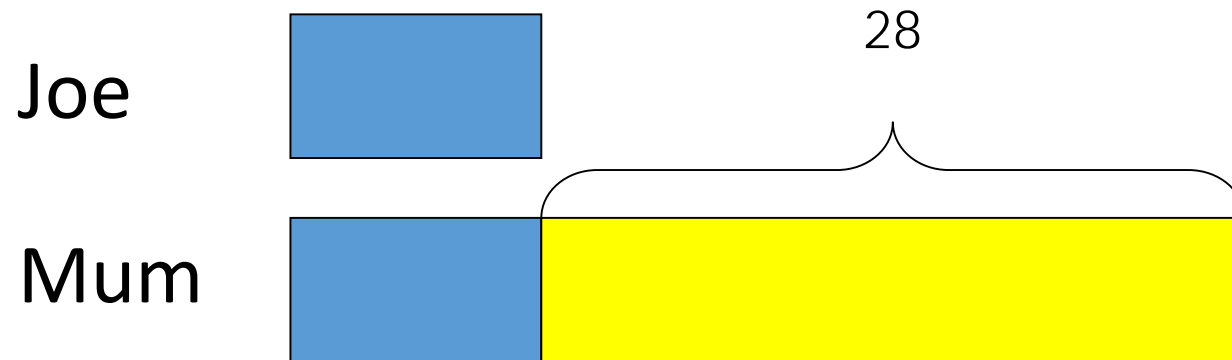
Example:

- Mom is 28 years older than Joe.
- Mom is 4 years younger than Dad.
- Their total age is 84 years old.
- What is Mom's age?



Example:

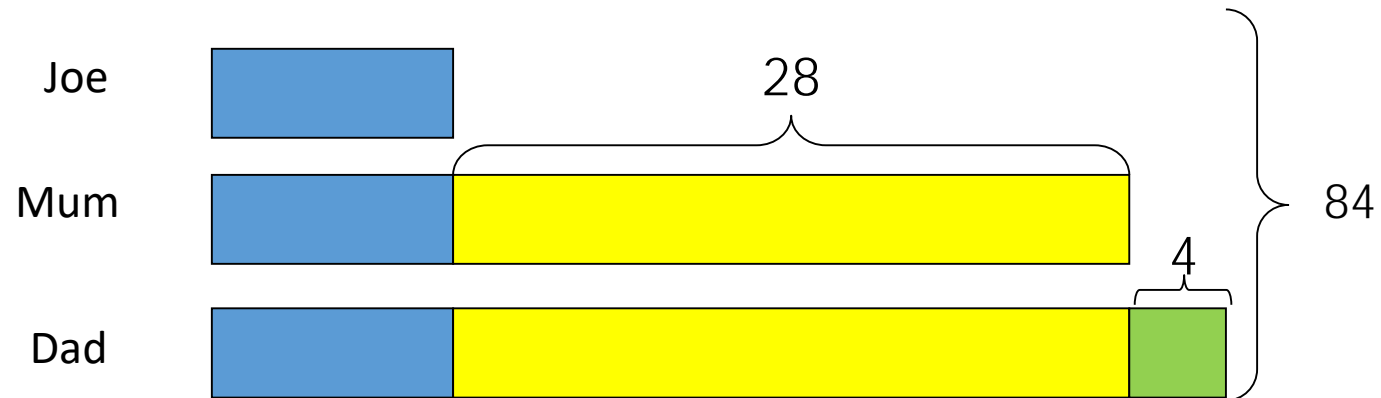
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Example:

Mom is 28 years older than Joe.

Mom is 4 years younger than Dad.



- We have a high 'Number ' content in the lower years.
- A great deal of time is spent on arithmetic in the upper classes.
- Most of our Y6 achieved near full marks in the arithmetic element of the Maths SATS this year. (We need to work on reasoning now!)
- This is going to be extended throughout all the years



Resilience and Self Worth

- Yoga
- X Platoon
- Children's Leadership Team
- Buddies in Hoodies
- Pupil Forum
- Mini Police





‘One word: XPlatoon. But that one word has an endless list of meanings: adventure of a lifetime, confidence building, learning to cope on your own... as I have already said the list goes on and on. So let me take you on a journey back in time to my experience at XPlatoon...’

<https://www.flipsnack.com/XPLATOON/x-platoon-a-path-for-life-fd1p2n3po.html>

www.xplatoon.com





X PLATOON





Welcome sisters and brothers.
We are the Mini Police.
We like to help others
We are the Mini Police
Bringing joy to those that need it.
We are the Mini Police
STOP! THINK! DON'T Speed it.
We are the Mini Police
We know what's wrong and right
We are the Mini Police
Be kind, forgive, Don't fight.
We are the Mini Police
Here to inform ignorance,
So we can all be Mini Police

Together we'll make a
difference.

St Mary's Mini Police



St Mary's Mini Police Projects



IS THIS CLEAR ENOUGH?

Zig Zag lines outside schools are there to protect YOUR children.

- NO** Picking up
- NO** Dropping off
- NO** Parking
- NO** Excuses!

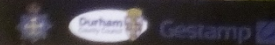


Thanks to the Mini Police from St Marys RCVA School, Newton Aycliffe, for their inspiration in creating these images.

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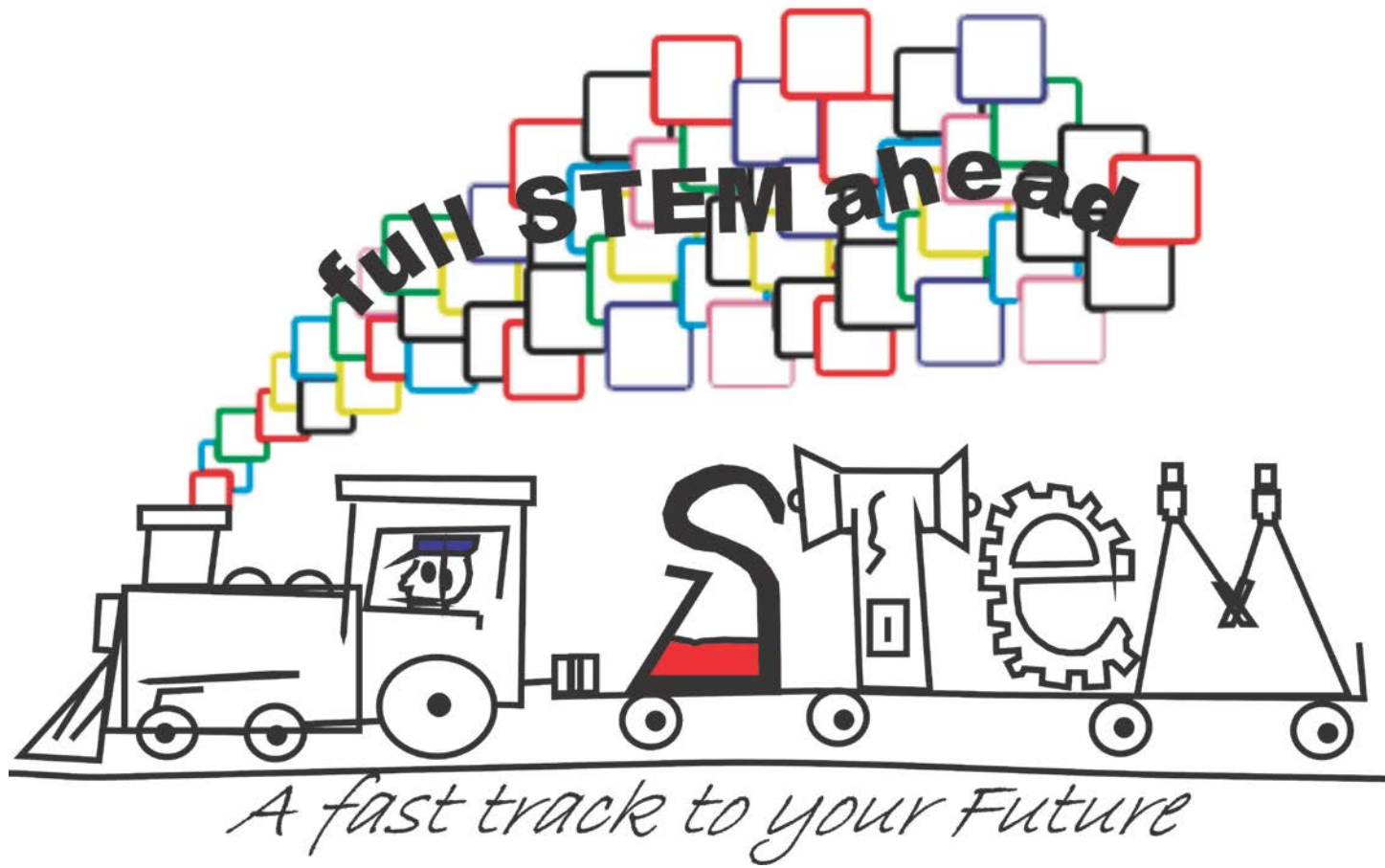
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7 Benefits of STEM Education

Fosters ingenuity and creativity: Ingenuity and creativity can pair with STEM and lead to new ideas and innovations. ...

Builds resilience: ...

Encourages tech use: ...

Encourages experimentation: ...

Teaches problem-solving: ...

Encourages teamwork: ...

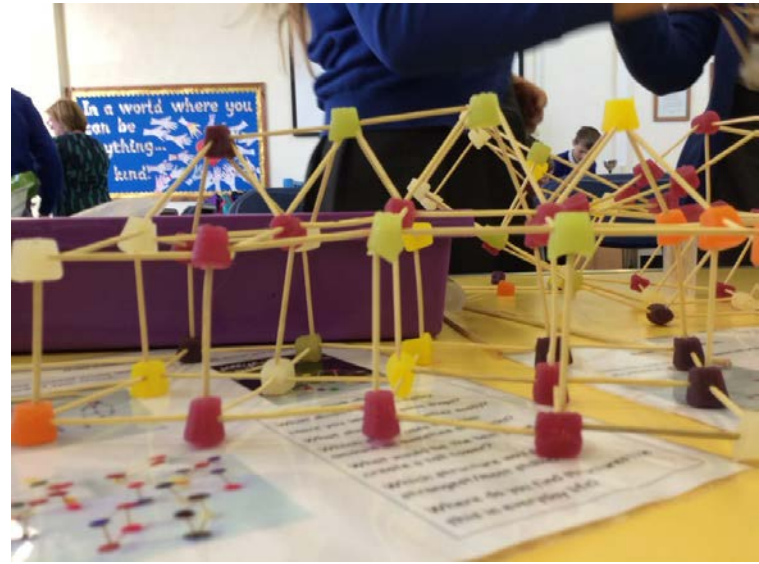
Encourages adaption:

Encourages knowledge application: ...



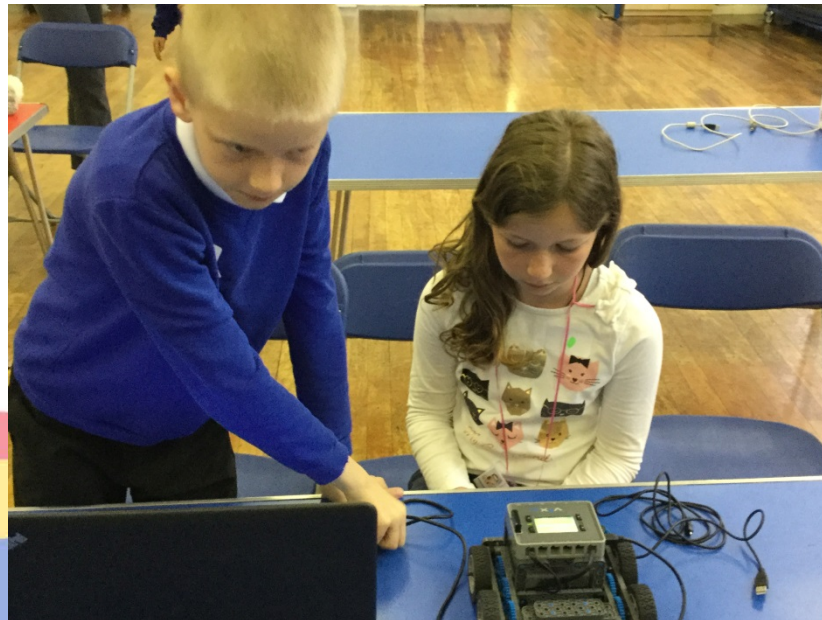
- What is STEM learning?
- Why is STEM learning approach important?
- How can I teach STEM?
- How can I fit STEM learning in to the curriculum?

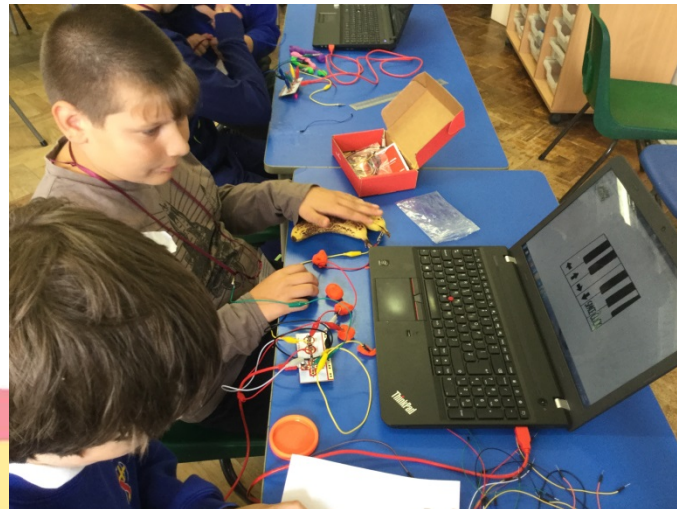
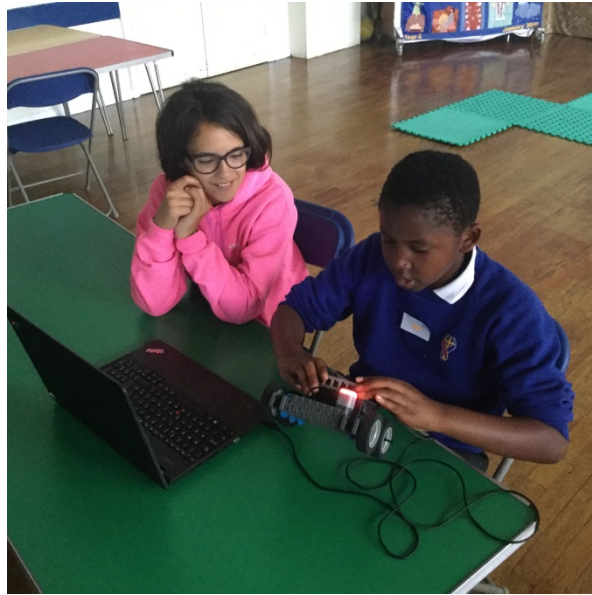












<https://www.thenorthernecho.co.uk/news/15380991.robotics-circuits-and-bananas-break-down-cultural-divide-between-newton-aycliffe-pu>





St Mary's School Biodome Project

Lizzy Kengyelics
St Mary's Catholic Primary School,
Newton Aycliffe.



Background

- Biodome installed in December 2018
- The aim of the project to promote student engagement and wellbeing





- Children
- ITEC
- Palram
- Salvage company
- Thinford Nursery
- Parents
- Teachers
- Governors



Learning through wonder

- Wondering can spark curiosity, investigation, and discovery in learning
- Motivate learners to see something from different perspectives
- This session considers learning through wonder



How is it used?

- The children grow
 - Vegetables
 - Fruit
 - Herbs
- And we investigate!!
 - How can vegetation grow without soil?
- Whole school approach
 - Targeted approach with individual groups



Some Advantages

- Learning
 - Where does food comes from? How do we grow it?
 - Team work
 - Problem solving
 - Authentic Tasks
- 1 in 9 children aged 5-15 have a mental health disorder (2017)*
 - Project provides children with a supportive environment
 - Key to ensure good mental health for all children



Our Vision

- Incorporate gardening into the school curriculum
- Working with BBC Children in Need
 - Seed to Table growing project
- Career Pathways



Teach

Facilitate Guide

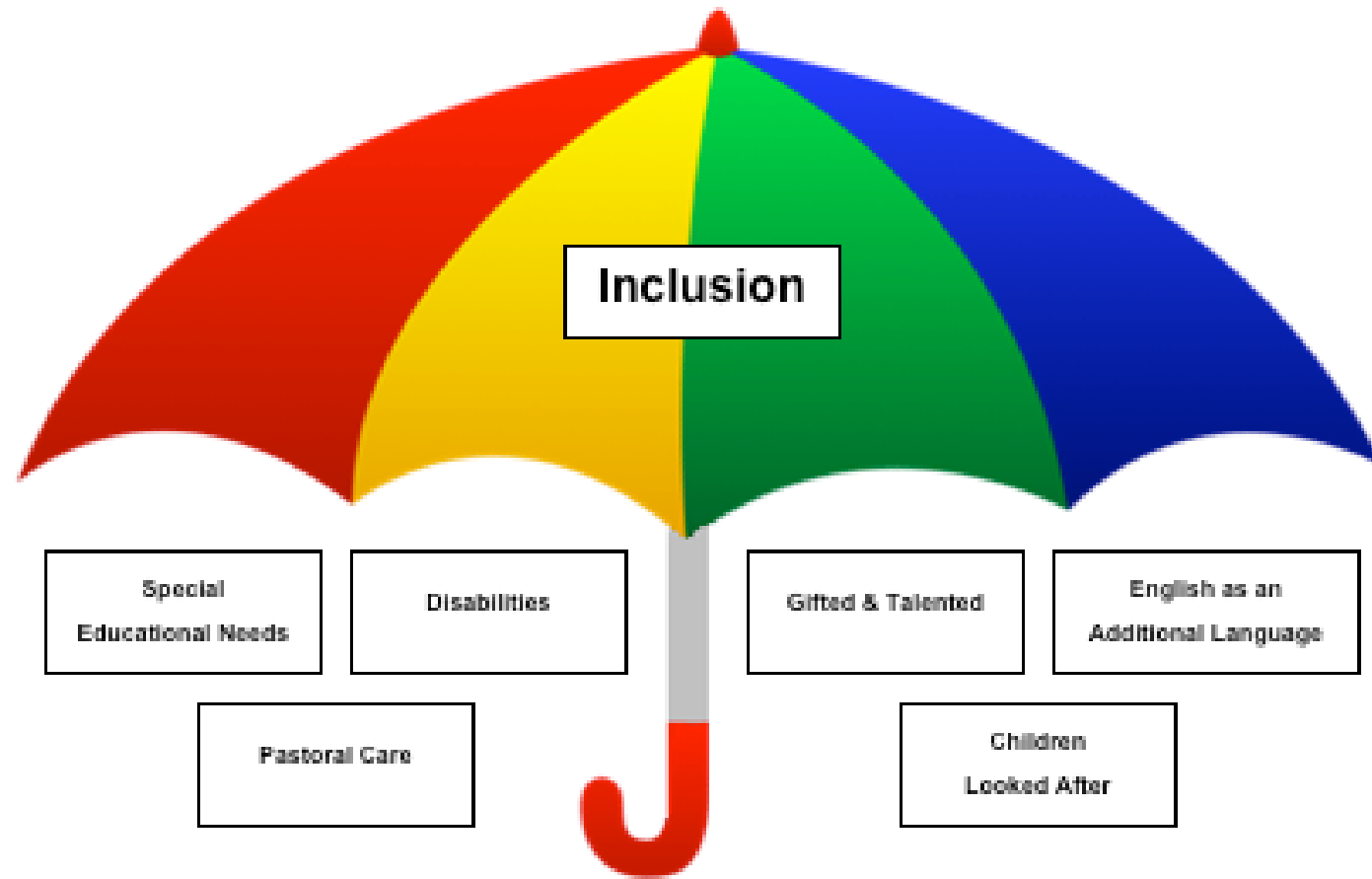
Coach

Learn

“Tell me and I forget.
Teach me and I remember.
Involve me and I learn” –
Benjamin Franklin

Involve





What factors influence learning?

- Support
- Task
- Pupil
- Environment



Case Study Child H Reception January EHCP

- Child H will not use the toilet at school or home she wears pull ups which are used as a nappy.
- Child H does not verbally speak at school she has only recently started speaking at home –Child H previously spoke at home from September 16-December 16, stopped speaking in December and Dad has just told us Child H is now speaking at home again (correct as of April 17).
- Child H is able to communicate by using her nose, nods and shakes her head. Child H requires adult support when moving to areas of the classroom. Child H refuses to move and will remain in one area for a long period of time if not holding onto an adult's hand. Child H will not touch other children's hands to allow them to support her.



- Child H can only be assessed within certain areas of the EYFS curriculum due to being nonverbal and not touching items, therefore having an impact on accurate academic assessment.
- We have as a school concerns regarding her eating habits and drinking. Child H refuses to eat or drink in school – concern is that during the summer months when the weather gets warmer that Child H will overheat and become dehydrated. Child H has already had to be sent home with a temperature that we couldn't bring down due to her refusal to remove her cardigan, go outside or drink any fluids.



Targets from EHCP

- Child H will develop her tolerance of other children in the classroom and have two preferred friends.
- To seek out her preferred friends and initiate play without the need for an adult to be in the vicinity.
- Child H will move around the classroom when asked to during adult led activities without the need for adult support.
- Child H will inform adults of wet or soiled nappy in school.
- To determine the anxiety driven behaviours (CAMHS).
- For Child H to feel safe and secure at school by engaging with a key member of staff during regular check in times.



Where is this Child now?

- Mainstream?
- Specialist?
- Home school?
- Is she receiving an education?





- Child H is making huge progress achieving greater depth in her reading and writing. She is also at expected standard in her maths. Child H has developed into a lovely independent girl, who has grown in confidence. She has excelled in a lot of areas and had made some good friendships.
- Child H has successfully met ALL of her EHCP targets.
- She no longer has an EHCP



Questions?

