

GMCI – Growth Mindset Classroom Intervention

Intervention formed as part of thesis submitted by Fiona Murphy for a Masters in Education from DCU in 2017 with specialism in Poverty and Social Inclusion.



Growth Mindset Intervention – Guiding Principles

These guiding principles should underlie the intervention;

- **Empowerment** - The main purpose of the intervention is to give the children the tools to empower themselves and take control over their own learning. This in part can be achieved by teaching the children that their brain can grow, that they can get better at things and to not be afraid of failure.
- **Praise** – Children should be praised for their effort in relation to any completed tasks. Avoid phrases and language like ‘You must be so smart/clever’ that feed into a fixed mindset. Instead focus on the learning achieved in any task. Encourage a growth mindset. For example during feedback; *How could you make this work better? You are on the right track. I can see you put in a lot of effort into this so well done. What new learning did you achieve? What did you learn from this? What will you do the next time? Did you make any mistakes? How did you learn from them? Can you think of a new way for the next time?* Remember if a child is making no mistakes they are not challenging themselves and no new learning is occurring.
- **Trust** – Trust that every child is a learner and can achieve. Have high expectations for all children. Trust the children that they will naturally challenge themselves when given a choice and the freedom to do so. There is no predetermining what a child can or can’t do. You want to instil in the children a positive sense of themselves as learners.
- **Co-Agency** – View learning as a shared partnership between teacher and children.
- **Choice** – Commit to giving the children more choices in their learning. Eg; choose their own learning partners, groups, where to sit, what response to give to a task; through drawing , writing, art/music, movement, choose their own topic to learn from their own interests etc. Choose a suitable topic for giving the children a choice of activity at different levels. Challenge 1, 2 and 3: Allow the children to choose for themselves what challenge they would like to do instead of splitting the class into ability groups. Encourage enjoyment in challenging themselves.
- **Alternatives to Ability Grouping** – Give challenges at different levels. Allow the children to pick their own challenge. Trust the children to find a suitable one for new

learning. Consider peer-to-peer learning and flexible grouping. Emphasise the importance of learning together and that we are all learners.

Reference:

Swann, M., Peacock, A., Hart, S. & Drummond, M.J. (2012). *Creating learning without limits*. Maidenhead: Open University Press.

Picture Books used in lessons:

Andreae, G. (2001). *Giraffes can't dance*. London: Gardner Books.

Deak, J.A. (2010). *Your fantastic elastic brain: Stretch it, shape it*. San Francisco: Little Pickle Press.

Pett, M. & Rubinstein G. (2011). *The girl who never made mistakes*. Illinois: Sourcebooks.

Reynolds, P.H. (2010). *The dot*. London: Walker Books.

Lessons aimed at Children aged 7-9 years approx

Lesson One

Picture Book - '*Fantastic Elastic Brain*' – an introduction to the concept of **Growth Mindset**. Gather the children in the story corner so that they can all see the book and are comfortable.

Objectives:

We Are Learning To:

- **Understand what my brain is and what it does,**
- **How my brain can stretch and grow stronger.**

Resources: '*Fantastic Elastic Brain*' picture book. Ball of different sized elastic bands.

Book Introduction – Introduce children to the book *Your Fantastic Elastic Brain*.

- Before reading the book give the children some thinking time for them to think about what they think is in their brain.
- *Children, I want you to think about what is in your brain. Think about what we use our brains for. What do you know about your brain?*
- Ask some children to share their thoughts.
- Tell the children this book will teach them all about the brain and all the things it can do. *This book will teach us all about our brains.*

Reading the Book

- Share reading the book with the children, showing them the pictures as you go as much as possible.
- Maybe stop briefly on blue page to ask a few children; *What kind of things make you YOU? Eg favourite food, likes, knows, enjoys etc.*
- Stop at football page to discuss. *Can you remember the first time you did something? (Football, string instruments, other hobbies etc) How did it get easier over time?*
- Stop at hocus pocus to discuss. Emphasis to the children how important making mistakes are to learning. *Making mistakes helps your brain stretch and grow stronger.* Share a time you made a mistake and how it helped you learn. Then ask

the children: *Can you think of a time you made a mistake and how it helped you learn?* Prompt as appropriate – an example from school; a maths problem, reading, riding a bike, something in Art or P.E.

- Continue reading through the book.

Follow – up Discussion on book

- These questions are only a guide – follow the children’s lead or your own to discuss ideas that arise.
- *So how do you think you could help your brain to stretch and grow stronger?*
- *Tell me about a time you tried really hard and didn’t give up.*
- *Why does your brain like a challenge?(Explain challenge if necessary)*
- *How does making mistakes show that we are challenging ourselves?*
- *Should we be afraid of making mistakes?*

Follow – up Activity

We Are Learning To – Use rubber bands to show how our brains can stretch

- Present the children with a ball of different sized elastic bands. Explain to the children that the rubber bands are similar to the brain. *All our brains are different and each one of us have big and small connections in our brains.* Model how the rubber bands are different sizes and how they can stretch. (Show how you have to stretch them slowly so not to hurt hands) *Our brains can stretch and grow like that too.*
- Give the children in pairs some elastic bands and let them practise stretching them carefully. Ask Children: *Which bands were easier to stretch? Which needed a bit more effort?* Present the bands that are thinner and harder to stretch as new learning; things that we need to practise at. Reiterate the idea that our brains can grow and stretch with practice.

Plenary – Ask the children what they have learnt today from the book and activities.

Prompt if necessary.

Lesson Two

A re-enforcement of the concept of brain plasticity using playdough. Gather the children in the story corner so that they can all are comfortable.

Objectives:

We Are Learning To: –

- **Make a playdough model of our brain to show how our brain can stretch like playdough.**

Resources: *'Fantastic Elastic Brain'* picture book. Brain templates. Playdough.

- Show the children the book *'Fantastic Elastic Brain'* and ask the children what they remember from it. *Can anyone remind the class what we learnt from the book Fantastic Elastic Brain?* Prompt if necessary; all the different jobs our brains do, how our brain can grow and stretch, how we need to practise new learning.
- To further reinforce the concept of brain plasticity show the children a brain template and with a ball of playdough model how a piece can be stretched into place.
- Tell the children at their places they will be making a model of their brain in pairs to show the different parts and how our brain can stretch. *Children, in twos, using the different coloured playdough you can make a model of your brain. The playdough shows how stretchy our brains are.*
- Allow children to sit back at their places and in pairs provide them with a brain template and playdough. Encourage the children to stretch and mould the playdough using different colours into the shape of their brain.
- When completed ask children to talk about their work. *What does the different coloured playdough show? What does the stretchiness of our brains show? The playdough shows how different connections can be stronger than others?* You can mention different parts of the brain from the book if brought up by the children.

Follow – up Activity

Class Dojo – Growth Mindset

- Watch on the Interactive Whiteboard Growth Mindset #1 cartoon on Class Dojo:
“Is Your Brain Like a Muscle?” Ask the children what they think about the cartoon.

Lesson Three

Follow up on '*Fantastic Elastic Brain*' book and identifying things we are good at and things we'd like to work on.

Objectives:

We Are Learning To:

- **Identify things that we are good at doing and things we'd like to become better at.**

Resources: '*Fantastic Elastic Brain*' picture book as reference. Elastic bands –different sizes. Worksheets.

Gather children onto the story corner. Introduce the lesson by reminding the children on the lesson completed on '*Fantastic Elastic Brain*' and the lesson on making a playdough model of the brain.

- Using different sized elastic bands demonstrate how we are already strong at certain things and other things are new to us. Use large and small bands to demonstrate.
- Ask the children guiding questions and encourage discussion:
- *What are some things that you are good at doing?*
- *Were you always good at this activity or did you have to practice?*
- *When do you feel smart?* Encourage children to talk about different areas – literacy, art, sport, maths etc. Link the emotions with notions of ability. *Are there any times you worry about being smart at school?* Tell the children they should never worry about that. *We all make mistakes when learning new things. It's good to challenge ourselves. We all learn things at different speeds and that's ok. Someone might learn how to ride a bike when they are 4 and someone else might learn to ride a bike at 7. That's ok. What's important is that with effort and practice that we can all learn new things and improve all the time.*
- *What are some things that you would like to become better at doing?*
- *How do you feel when you can't do something?*

- *How do you think you might improve your skills?*

Show the children the worksheet and talk about what you'd put in for strengths and some things to work on. Ask some children to demonstrate what they will put in for each area.

Children can draw and/or write a piece for each side; things I am good at and things I'd like to work on.

- Ask children to sit and distribute sheets.
- On completion ask some children randomly to share their work.

Lesson Four

To emphasise and understand that mistakes help us learn.

Objectives:

We Are Learning To:

- **Understand that mistakes help us learn.**

Resources: *'The Girl who never made Mistakes'*, *'Fantastic Elastic Brain'* picture books.

- Ask the children to sit in the story corner. Introduce the lesson by telling the children that we will be discussing mistakes and how they help us learn. Show the children the book **'Fantastic Elastic Brain'** and remind them of how it showed how mistakes help us learn. Open a discussion on mistakes we have made.
- *Have you ever made a mistake?*
- *How did it feel when you made the mistake?*
- *What happened after you made the mistake?* Talk about the new learning that occurs when we make mistakes and how the connections in our brains grow stronger when we make mistakes as we are challenging ourselves.
- *Do you think we should feel bad about making a mistake?*
- *How will you react the next time you make a mistake?*
- Read the picture book **'The Girl who never made Mistakes'**. On completion pass a speaking object around to allow children to discuss the book. *I think it's good to make mistakes because*

Follow – up Activity

Class Dojo – Growth Mindset

- Watch on the Interactive Whiteboard Growth Mindset #2 cartoon on Class Dojo called "The Magic of Mistakes." Ask the children their responses to the cartoon and to empathise with the characters.
- *Did you ever feel like ?*

Lesson Five

Introduction to Growth and Fixed Mindset and build on concepts already learned.

Objectives:

We Are Learning To:

- **Understand what a 'Growth Mindset' is.**

Gather children on the floor for discussion. Introduce the lesson by reminding the children on lessons completed on the brain; 1/ How the brain is like a muscle and can stretch and grow, 2/ It's good to challenge ourselves, 3/ We learn when we make mistakes. Ask some children to explain learning of concepts so far.

- Introduce the children to the language of Growth Mindset.
- *When we talk about how our brain can grow it is called a 'Growth Mindset'. Mindset means the way you think. If you have a growth mindset you can help your brain to get stronger. Remember your brain is like a muscle and gets better with practise.*
- *What can we do to help us to have a growth mindset? (learning new things, not giving up on things, giving ourselves a challenge, learning from mistakes).*
- *Why do you think it is important to have a growth mindset?*
- *When people don't have a growth mindset they may think that your brain can't grow and get stronger. They believe their mindset is fixed and can't change even with lots of practise. It's fixed in one place and doesn't change. They think if you're not good at something there's nothing you can do to change that. What do you think about that?*
- *Did you ever give up on something quickly? (Maybe share a time you gave up on something quickly because you thought it was too difficult).*
- *Why do you think you might feel like giving up on things quickly?*
- *How can having a growth mindset help us?*
- *Can anyone think of a famous person they really like, like a singer or a football player?*
- *Do you think they gave up quickly when things were hard or they made a mistake?*

- *Do you think they have a growth mindset?*
- *Should we be afraid of making a mistake when we learn something new? Why/why not?*
- *Should we be afraid of making a mistake when we are finding something tricky or difficult? (Emphasise how it's good to challenge ourselves; that's when our brain is getting stronger and growing).*
- *Do you think you are happier when you have a growth or fixed mindset? Why/why not?*

Plenary – Ask the children to recap what a growth mindset is.

Lesson Six

Language to use for Growth and Fixed Mindset and build on concepts already learned.

Objectives:

We Are Learning To:

- **Discuss and learn about the language we use when we have a ‘Growth Mindset’.**

Resources: Statements. Feely Bag. Different coloured crepe paper. Black and white paper. Brain templates. Glue.

Gather children on the floor for discussion. Introduce the lesson by reminding the children on growth mindset.

- *What does having a growth mindset mean?*
- *Why is it good for us to have a growth mindset?*
- *How could we help each other to have a growth mindset?*
- Introduce the children to how the words and language we use can be important in having a growth mindset.
- *By using words and language we can help ourselves to have a growth mindset.*
- Tell the children that you will be thinking about growth and fixed mindset. Explain that on one side will be statements for a fixed mindset and on the other side will be statements for a growth mindset.
- Show children the bag of statements and explain that you will pick children randomly to pick out a statement and they have to decide if it belongs to a growth or a fixed mindset.

- Statements:

Fixed Mindset

- *I can't do this*
- *I'm no good at this*

Growth Mindset

- *I can't do this yet*
- *I can become better at this. What am I missing?*

We Are Learning To – Make a model of our brain for a growth and fixed mindset

- To further reinforce the difference between having a growth and fixed mindset children working in pairs can make a brain model comparing a growth and fixed mindset.
- Allow children to sit back at their places and provide them in pairs with a brain template, different coloured crepe paper and black and white paper.
- Demonstrate to the children how to tear small pieces of paper and stick them onto template. Ask children in pairs working together to fill in templates.
- When completed ask children to talk about their work. Reinforce how the coloured side of the brain depicting a growth mindset looks alive and growing stronger as the coloured connections show. The fixed mindset shows a brain that is not changing or growing.
- Ask the children to discuss the different mindsets. *Why do you think the growth mindset is in colour? Why is the fixed mindset in black and white?*

Lesson Seven

Picture Book - '*The Dot*' – To give the children encouragement and the confidence to trust their own capabilities and creativity. Gather the children in the story corner so that they can all see the book and are comfortable.

Objectives:

We Are Learning To:

- **Trust that we all can do wonderful things,**
- **To gain confidence and believe in ourselves.**

Resources: '*The Dot*' picture book. Dot templates. Coloured pencils. Twine.

Book Introduction – Introduce children to the book *The Dot*.

- Read the book 'The Dot' to the children sharing the pictures as much as possible.
- After reading invite the children to discuss the book using the following questions as a starting point.
- *Why was Vashti's paper empty?*
- *Do you ever feel like Vashti?*
- *Why did her teacher ask her to sign her name?*
- *How did she feel when she saw her picture framed?*
- *What did Vashti discover while painting dots?*
- *What made Vashti try something new?*
- *How did Vashti's dots look at the show? Did her art improve?*
- *How did Vashti feel about herself?*
- *Do you think Vashti has a growth mindset now? How?*
- *Why did Vashti ask the boy to draw for her?*
- *What do you think happened after the boy signed his art?*
- *What is something you'd like to improve?*

Follow – up Activity – Connect the dots activity.

We Are Learning To – Sign and decorate a dot and on the other side write something you'd like to achieve

- To further reinforce the book children will complete a follow-up activity.
- Demonstrate using the dot template how the children can decorate one side of the dot with their name and draw dots in their own design. On the other side of the dot children can write or draw something they'd like to achieve.
- Children can sit back at their places. Distribute resources and children can complete activity.
- Invite children to share their work on completion. Children's completed dots can be connected by twine to create a dot garland. This can be displayed in the classroom.

Lesson Eight

Picture Book - '*Giraffes can't dance*' – To reinforce concepts learnt about growth mindset. Gather the children in the story corner so that they can all see the book and are comfortable.

Objectives:

We Are Learning To:

- **To know that we should never give up on things like Gerald in the story,**
- **To know how important it is to have a growth mindset.**

Resources: '*Giraffes can't dance*' picture book. I can/I can't yet sheets.

Introduce children to the book '*Giraffes can't dance*'. Some of the children may be familiar with the book already. If so, ask them what they know about it.

- Read the book with the children.
- Stop at the part where Gerald says he is useless. Ask the children to talk with the person beside them. *How do you think Gerald is feeling?* Suggest as appropriate; bad, lonely, sad, jealous, cross etc.
- *Why is he feeling like that?*
- *How could he help himself?*
- Draw the children's attention to the display on the language of fixed and growth mindset for ideas. *Is there anything there that would help Gerald?*
- *Is it a good idea for Gerald to call himself useless?* Emphasise how the words Gerald uses will make him feel worse.
- Remind the children to look at the growth mindset display in the classroom *Do you think Gerald has a fixed or growth mindset at the moment in the book?*
- Continue reading the story with the children.
- Once Gerald has learned to dance ask the children how he is feeling now.
- *How is Gerald feeling now he can dance?*
- *How did Gerald go from not being able to dance to dancing?*

- Emphasise the importance to the children about having and go and really trying. *Does Gerald have a fixed or a growth mindset now?*
- Ask the children to look at the growth mindset display in the classroom. *What kind of statements do you think Gerald might have said to himself to change his mindset from fixed to growth?*
- Emphasise to the children the importance of the words we say to ourselves are. *If I say to myself I'm useless at something and I can't do it how does that make me feel? It'll make me feel useless as that's what I'm telling myself so I'll feel bad about myself and my mindset is fixed.*
- *Can you think of growth mindset statements to tell ourselves when we can't do something that will make us feel better?*
- Explain to the children that like Gerald at the start of the book there are things we can't do yet. *Just because we can't do something now does not mean we won't be able to do it in the future. What does the future mean?*
- Tell the children the future may mean tomorrow, next few days, next week/weeks or months or even years.
- On a chart write the title. ***Things we can't do yet***
- Share something you can't do yet with the children and write it on the flipchart.
- Give the children some thinking time and then ask them to share things that they can't do yet. Ask just for suggestions this time on their learning at school. Give suggestions if needed; read a PM level 22, play the violin better, do a challenge 3 maths challenge, do joined handwriting, say a full conversation in Irish, use better expression in my reading etc.
- Show the children the; I can/I can't yet sheets and explain how when they sit down they can complete them. They can draw and label or write in their ideas about things they can/can't do yet at school.
- On completion of work ask some children randomly to share their work.

Follow – up Activity

Class Dojo – Growth Mindset

- Watch on the Interactive Whiteboard Growth Mindset #3 cartoon on Class Dojo called “The Power of YET.” Ask the children their responses to the cartoon and to empathise with the characters.
- *Did you ever feel like ?*

Lesson Nine

Picture Book - '*The Dot*' – Follow-up on lesson completed on book.

To complete creative art activity using the picture book '*The Dot*' as inspiration. Gather the children in the story corner.

Objectives:

We Are Learning To:

- **To create some art based on the book '*The Dot*' to remind us that we all be so creative.**

Resources: '*The Dot*' picture book. Paint. Paintbrushes. Selection of different coloured pastels. Different sized dot paper plates and doiles. Selection of white and coloured paper. Cups for printing with. Selection of items at each table. Newspaper for covering tables.

- Briefly remind the children of the book '*The Dot*'.
- *What happens in the book?*
- *Why did Vashti not want to draw anything?*
- *Why did she change her mind?*
- *Did you like Vashti's art in the book?*
- *What kind of mindset do you think Vashti has?*

Tell the children that they are going to get the chance to make some art based on drawing and painting dots. Show the children the different drawing and painting implements and tell them they can use any of them to draw and create some dot art. Show the children the different paper, paper plates and doiles that they can choose from. Demonstrate the printing process too. Children can choose what drawing or painting implements to use and return to their places to create the dot art.

- On completion invite children to discuss their work and ask children to comment positively on each other's work.

Lesson Ten

To revise concepts learnt on growth mindset over the lesson series. Gather the children in the story corner for discussion.

Objectives:

We Are Learning To:

- **To revise concepts learnt about growth mindset and show how having a growth mindset will help us learn at school.**

Resources: Worksheets on growth mindset. *Fantastic Elastic Brain*, *The Girl Who Never Made Mistakes*, *The Dot*, *Giraffes Can't Dance* picturebooks.

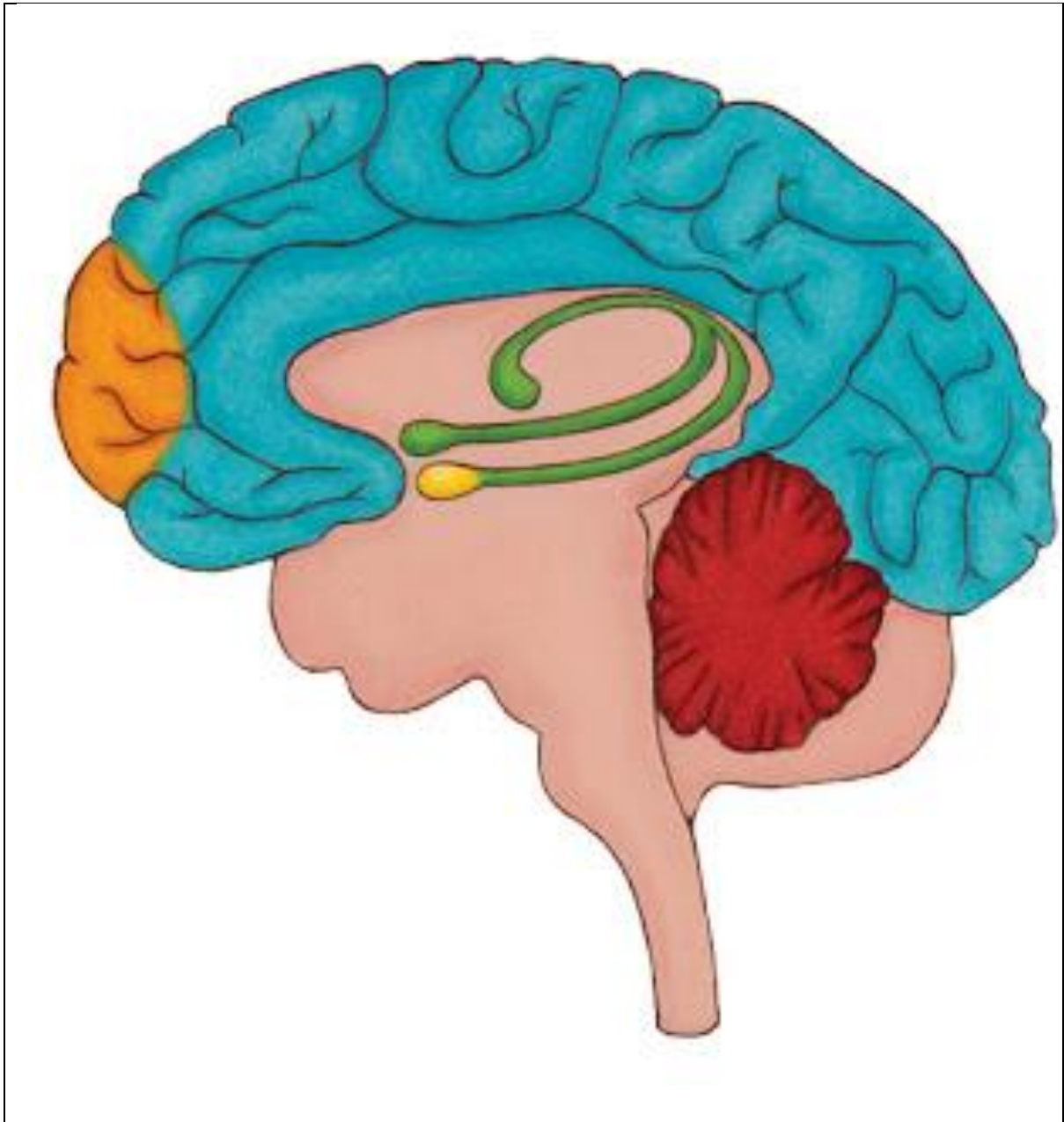
Introduce children to the lesson by telling them you will be revising all they have learnt over the past few weeks about the brain and growth mindset.

- *Boys and girls today we will revise what we have learnt about the brain, growth mindset and our learning.*
- Show children the book *Fantastic Elastic Brain*. *Remember our book Fantastic Elastic Brain. What can you remember about the book?* Remind the children about how the connections in the brain grow stronger with practise, how our brain stretches when we challenge ourselves.
- Show children the book *The Girl Who Never Made Mistakes*. *What can you remember about this book children? So how is it important not to be afraid about making mistakes?* Emphasise that mistakes show new learning is happening.
- Bring the children's attention then to growth mindset. *Boys and girls, then we learnt that this new learning about the brain is called growth mindset. Remember mindset means the way you think. A growth mindset helps your brain to grow and get stronger. Remember your brain is like a muscle and gets better with practise.*
- *Can anyone remember what a fixed mindset means?* Emphasise that when you have a fixed mindset you don't believe you can get better at something.

- Show the children the picturebooks, *The Dot* and *Giraffes Can't Dance*. We read some books about characters who changed their mindset from fixed to growth. What kind of mindset did Vashti have at the start of the book? What made Vashti change her mindset from fixed to growth? Who helped Vashti to change her mind from fixed to growth mindset?
- What about Gerald the giraffe, who can tell me what kind of mindset Gerald had at the start of the book? How did he feel? How did his mindset change from fixed to growth?
- I want you now boys and girls to think about how having a growth mindset is going to help you at school? Prompt if necessary; not be afraid of hard work, challenge yourself, have a go, keep practising, believe you can do it etc.
- Boys and girls with a growth mindset will you be worried about getting everything right at school? Why.why not? How does having a growth mindset make you feel better about school? If you feel smart at something should you be challenging yourself? If you don't feel smart at something what should you do? Emphasise that the children can practise and improve at everything even if they feel smart at something or not.
- Show the children the worksheets where they have to complete the sentence **A growth mindset helps me in my learning at school because.....** Children can draw a picture to go with their sentence.
- Invite children to sit back at their places to complete their work.
- When work is completed invite some children to share their work with the class.

Resources

Brain Template – Lesson Two/Lesson Six Resource



Lesson Three – Resource

<i>Things that I'm good at</i>	<i>Things that I'd like to work on</i> <i>on</i>
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Lesson Eight – Resource

I can

I can't yet

Lesson Ten – Resource

A growth mindset helps me in my learning because
