



TEACHERS' NOTES



LESSON ONE:

Our Amazing Brain

This is a sample lesson from the 12-lesson Paws b curriculum. For more information about how to train to teach the full course, please visit www.mindfulnessinschools.org

LESSON 1: OUR AMAZING BRAIN



OBJECTIVES

- To introduce the idea of the mind and the brain as separate but connected
- To explore how the brain can be changed depending on how we train our minds
- To experience what it's like to direct the attention
- To provide some simple tools for training the attention

LESSON FLOW



Brain and mind –
what's the
difference?

- Training our mind can also change our brain.
- This is a bit like training a muscle – it takes practice.



We are going to be
neuroscientists!

- We will learn about 4 areas of the brain which work together.
- The **prefrontal cortex** is the **team leader** of the brain.



When we learn
new skills we use
our prefrontal
cortex

- It can help us to concentrate, make choices and be our best.
- It can also help us with tricky things that might be less easy.



How do we get
better at what we
do?

- Preparing
- Bringing their attention into their body
- Pausing, and using our breath to ground ourselves .
- This helps us to focus and concentrate.



How many
breaths in a
minute?

- We can use our breaths to train our minds!
- This can help us to focus our attention and concentrate.

Have a Go

- Practice counting your breaths in your own time.
- How many breaths in a minute?
- Use a watch or clock to time yourself.

RESOURCES

Optional worksheets



Welcome to the first of our Paws b lessons. Over the next 6/12 lessons in our Paws b course, we are going to learn about the two most amazing thing you will ever have: your brain and your mind.

So let's begin by seeing if you know what this is a picture of ? A brain working out or about to lifts weights.

Can you point to where your brain is? Inside the skull – the amazing organ that does so many wonderful things for us every day.

Great. But here's a tricky question – can you point to where your mind is? A likely response is a bit of confusion about where this might be.

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Ah, so that's not so easy, is it? From where you were pointing, it looks like the mind can be in lots of different places, and definitely not just in your skull.

ACTIVITY

I am going to count down like this '3-2-1', and when I get to 1, we will all clap our hands together lick this 1-2-3. *Clap your hands to show them how they need to do this.*

We're going to clap our hands together quite loudly and then hold our hands facing each other about 10cm apart.

Ready? 3-2-1..... Etc.

After a few seconds of holding hands out..

Where is your mind now?

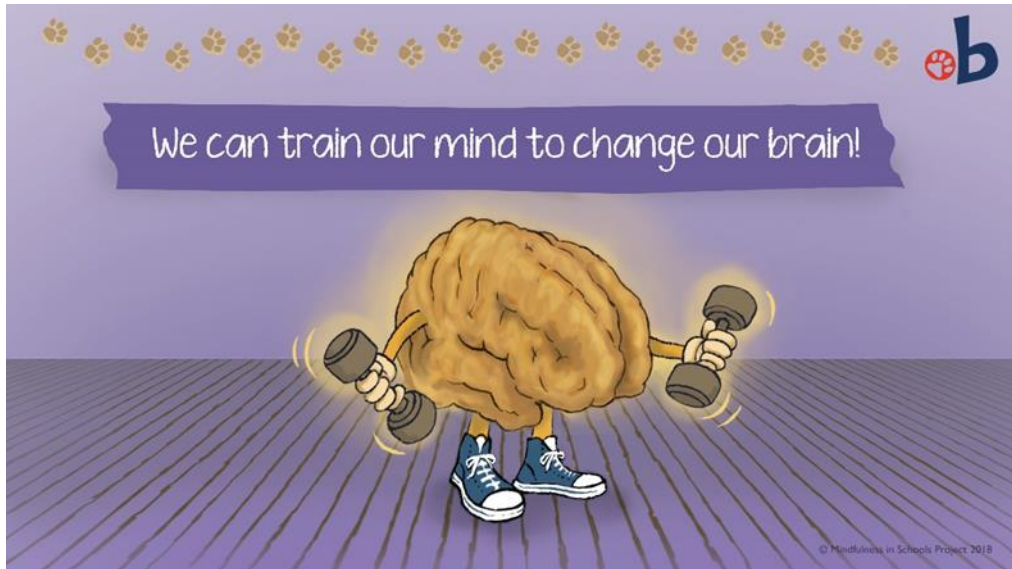
Children will probably say it is in their hands now.

How do we know that?

Children's responses may be sensory experiences such as tingling or hot, but also that's where I'm thinking about just now.

Your mind can move around, and is wherever your attention is right now. Maybe your attention is on my voice. Maybe it's being pulled away to something else – a different noise in this room or even outside this room; to a sensation in your body; to thoughts about lunch or what you're doing after school today.

Here we are introducing the distinction between the brain and the mind. The brain is the organ in our skull that we can structurally and functionally adapt through concentration practices we learn through mindfulness. Our mind is different, combining focus of awareness, thoughts, emotion and body state – much more complex and perhaps less understood. It is the mind we are training in order to change the brain.



Did you know that we can train our mind?

In these lessons, we're going to introduce you to a way to **train the mind**. It can be trained just like our muscles. And **training our mind can also change our brain**. *[Click]*

A bit like exercising a muscle *[Click]*, every time we learn a new skill, we are making changes to our brain - learning to dance, playing a musical instrument, juggling. But it doesn't have to be a physical skill. It can also be a skill using the mind.

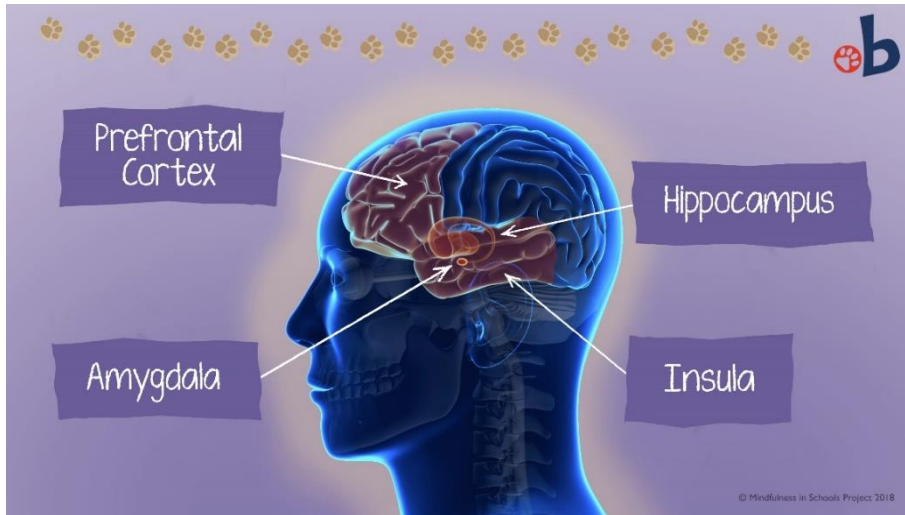
If you think this is not too advanced for the group, you can also mention the following:

There is a special word for this 'muscle building in the brain' – it's called **neuroplasticity**.

Can you say this word?

What we're going to be learning together has been shown by **scientists** to make particular changes to our brain that can really help us in life.

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In these lessons we are going to become neuroscientists! We are going to be learning about 4 different parts of the brain.

Of course, there are many **different areas of the brain**, but we're going to look at 4 that we know can be developed and that **work together as a team**.

Name the 4 parts and point to the part on the picture as you name them – you can also ask them to say the words after you:

[Click]

1. **Prefrontal cortex** *[Click]*
2. **Hippocampus** *[Click]*
3. **Amygdala** (there are 2 of these) *[Click]*
4. **Insula**

FOR TEACHER REFERENCE ONLY:

Prefrontal cortex: Makes choices, pays attention and therefore helps us learn more effectively.

Hippocampus: Helps us with our memory through linking old and new experiences together.

Amygdala: Just reacts automatically in response to perceived threats. Its job is to keep us safe, but sometimes it gets in the way of making wise choices.

Insula: – helps us recognise how our body state is (tired, hungry etc.) and helps us to tune in to how other people are.



Today we are going to learn about a really important part of the brain. Can you remember what this part is called?

Wait for their responses.

Well done! It's called the *[Click]* **prefrontal cortex**.

This is a very important job to do – it's the **team leader** of the brain.

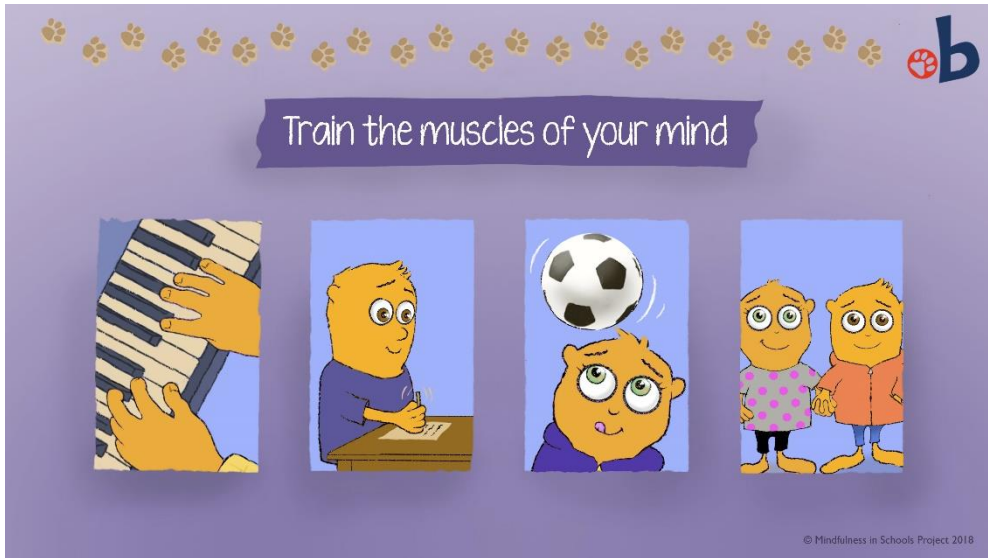
Have a look at the picture.

Where is the prefrontal cortex in your brain?

Can you point to where your prefrontal cortex is?

This is an area that lies underneath what we'd normally call the forehead.

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So let's just remind ourselves again about the difference between the brain and the mind. Can you remember?

Hear their answers.

The brain is an **organ** - something inside our body which has a specific job to do - whereas the mind can be outside of our body. It is where we **place our focus or attention**.

There is much academic discussion about the difference between mind/brain/attention/awareness/focus etc, so the above is very much a simplified version of this, and intended to simply help them understand that how they use their attention can be really important (this developed in later lessons).

In this Paws b course, we are going to *[Click]* **train the muscles of our mind** in order to change brain.

The **prefrontal cortex** (can you point to where that is again?) is involved in all the following activities, working with other parts of the brain.

Whether we're *[Click]* learning a musical instrument, *[Click]* learning to write, *[Click]* maybe practising a sport, or *[Click]* simply learning how to make friends - everything new we learn involves the **prefrontal cortex**.



Training your mind can help you with many different things in your life.

We know that some experiences can be tricky in our lives, can't they? Hands up anyone who has ever found something tricky? *There's probably not time to get into the details here, and there is time for this in the next activity, but it marks a great opportunity to note that finding things tricky is part of being human. The following images reinforce this message.*

Let's have a look at some examples. *[Click]* What is this person doing, and why might it be a bit tricky? Speaking in front of a group of people – can make us nervous.

[Click] What about this one? Sometimes friendships can feel a bit tricky.

[Click] And this one? What's happening here?
Arguing with people can feel really tricky

[Click]

And how many of you have had the experience of performing in public – maybe in assembly, or in a concert, or just having to take a music exam, or something else? *Ask for examples if time.*

But the good news is that, by **training our mind**, we can **make changes to our brain** so that we can begin to practise dealing with these difficult experiences more skilfully.

ACTIVITY

So let's have a think about **what's tricky for you**. Maybe you find it tricky to **stay calm** before a test; maybe you find it tricky to **concentrate** sometimes; maybe you sometimes find it tricky to **remember** to do things you've been asked to do; or maybe something else is tricky for you.

This is intended as a motivational exercise to help them find specific aspects of their experience where learning mindfulness may be helpful for them.

From here on you could do any of the following:

- 1. Work in pairs, pooling their ideas and then perhaps feeding back to whole group.*
- 2. Ask them to jot down some ideas on **WORKSHEET 1** as you move through the next set of questions.*

So, here's another question: Can you think of any examples of a famous person, or someone you might know, who has a real skill. Maybe in sport, or music or dance or something else?

Hear their answers.

Great! So the question is, how did they get so good at their skill? We are encouraging them here to identify the importance of practising. While some people may seem naturally gifted in a particular area, without practise this can rarely develop.

No matter how naturally 'talented' you might be, practice is the thing you need to get better at something.

So, we'll be doing lots of practice together, developing our mindfulness skills as we go.



ACTIVITY

Let's look at this another way.

Can you give some examples **of what you're good at?** *[Click]*

Maybe it's something to do with school like writing, reading or listening, or being a good friend, or something outside of school – maybe a hobby or activity you do on a regular basis.

*Here you can ask them to work in pairs and then feed back to the group, or respond individually using **WORKSHEET 2**.*

N.B. If any of them struggle to think of something they are good at, encourage their friends to support them by making suggestions of what they think they are good at.

.... and *[Click]* **what would you like to be better at?**

Again, give them time to talk this through or write it down on the worksheet.

And finally, how did you get to be good at that thing?

This offers them the opportunity to explore how we develop skills through practice (even learning to walk or talk took practice!).

And how could you be better at the things you want to be better at? Practice? Concentration?



Training our mind can help us with things in our lives that can feel **tricky** but it can also help us be **happier**.

Training our mind can help us to really **notice some of the good things** in life that we might not otherwise notice.

We will look at this in more detail in some of our later Paws b lessons, but there's a particular part of the brain that is really important in helping us **notice** these things, and to concentrate. Can you guess what it is?

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Remember the **prefrontal cortex**?

*You could ask them here to suggest which sort of **skill** or **ability** each of the following images are representing.*

The prefrontal cortex helps you to: *[Click]*

1. Concentrate and focus *[Click]*
2. Make choices *[Click]*
3. Help us be and do our best

...and so it also helps us to learn more.

Hands up if you would like to be able to...

- Learn a new skill
- Be more creative and inventive
- Learn a new language

Allow them to either share with a partner or with the group as a whole.

This is what the prefrontal cortex helps us to be able to do. We can help it get better at doing this by training our mind.



The following slide has a series of optional film clips. The idea is to choose one that you think might resonate best with your group most.

Here is an example of someone who has **learned to focus and concentrate** to help them to be their best.

Let's have a look at them in action. As we watch this clip, watch carefully what happens right from the **beginning of the clip to the point when it finishes**. How can you tell that they are **concentrating** and **focusing** on what they are doing?

TOP LEFT: Tom Daley - British diver who specialises in the 10-metre platform event and is a double World champion in the event.

TOP MIDDLE: Christin Steuer - a diver from Germany who has also competed in three Olympic games.

TOP RIGHT: 2017 UEFA Women's Under-17 European Football Championship Penalty shoot-out - Germany vs Norway

BOTTOM LEFT: Christian Taylor - American track and field athlete who competes in the triple jump and has a personal record of 18.21 m (59 ft 8 3/4 in).

BOTTOM RIGHT: Marie-Amélie Le Fur - a Paralympic athlete from France competing in sprint and long jump events.



*Show clip by just clicking on the image of the clip you wish . to play. It should come up with a full screen window. Simply **hover your mouse over the screen** and click on the ‘Play’ arrow to play the clip.*

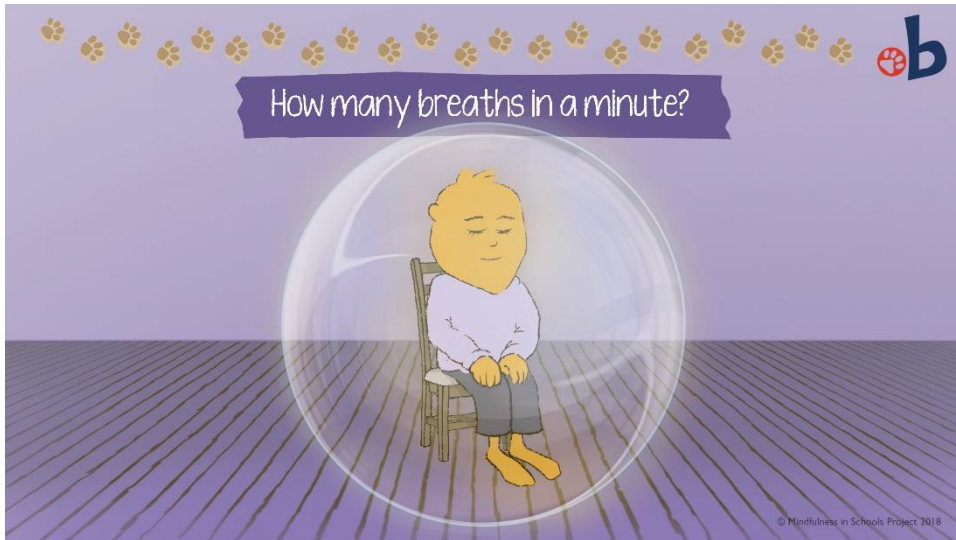
Each of these clips shows someone:

- **Preparing**
- **Clearly a bit nervous at the beginning**
- **Bringing their attention into their body**
- **Pausing, taking conscious breaths before beginning**

The key learning here is that it is possible to settle ourselves, helping us to concentrate before taking part in any activity.

This links with the next practice on the following slide where the children will use their own breath to begin to learn to focus and concentrate.

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PRACTICE

So, let's begin training our minds! One way we can **train our minds** is to use our **breathing**. This can help us to focus our attention and concentrate.

Let's have a go!

The explanation of the conditions needed in the classroom for practice described here may need to be repeated from time to time throughout the course or until this happens easily.

The "bubble". As we do these practices together it is important that you **find your own space** to practise in - a bit like having a bubble around you. As we do these practices it's important not to be looking around at other people. You can choose to have your **eyes closed** or just **looking gently at the table or floor in front of you**. It's important to give everyone a chance to practise if they want to, even if you don't at that moment. **Respect** your friends as we do this together.

Let's prepare by finding a position that feels right for us to use when we are doing our practices.



*It's fun at this point to play around with posture a little. You can model this with them. Firstly ask them to sit but **allowing their body to fall forwards** with arms dangling down at the sides, and as they do this, ask them, 'is this a good posture to do our practice in?' Next ask them **to lean way back in their chair**, as if laying back for a snooze, again with arms dangling by the sides. 'Is this a good posture to do our practice in?'. You can play around with a few more if you wish, but hopefully, the final position will be **sitting tall in the chair in a comfortable position** for the hands.*

So, sitting up on the chair in a **strong position**, let's begin by putting our **feet flat on the floor**, really feeling the feet on the floor. Sitting tall with your back away from the back of the chair. Letting the spine be tall and the back of the neck long so that the back is strong but not tight. And now let's place **one hand on your chest** and the **other one on your tummy**.

Let's begin to notice what this feels like.

Perhaps you can feel your body moving as you breathe.

Maybe you can feel the in-breath ...and the out-breath. If so, is the movement of breath fast or slow?

Do you feel it in your tummy or your chest? Maybe you're even noticing the breath somewhere else in your body. The nose? The throat? Somewhere else?

Now let's choose to really concentrate and begin to notice particularly your in-breath.

Allow some time for them to do this.

Now let's begin to **count how many in-breaths we breathe in one minute**. Starting to count when you hear the bell and stopping when you hear the bell at the end.



It is not necessary to share the number of breaths they counted – we’re not making this a competition! We are just wanting them to concentrate and notice.

Invite them to simply take a mental note of how many breaths they counted, then ask for their observations.

This is a good opportunity to refocus the energy of the class, and also to model some kind curiosity towards their responses.

So, how was that? What did you notice?

These may include:

- *It was difficult to concentrate!*
- *Some bits of my body were easier/harder to focus on than others.*
- *Why are we doing this?*
- *I counted 600 breaths!*

Remind students to stick with it, constantly reassuring them that there is no right or wrong, or being ‘good’ or ‘bad’ at these practices. They are just having a go, and seeing what happens. This is all part of beginning to train our attention.

There is guidance on how to do ‘enquiry’ sessions like this in the **How to Teach .b** booklet.



Let's see what we can remember from today's Paws b lesson.

*The following images are intended to trigger the memory of a **key learning point** or ideas covered in this lesson.*

*All images are there at the beginning of the slide, so if you choose, you can allocate different images to small groups and see what they come up with using the **WORKSHEET 3**. Alternatively, ask them what was learned or discussed about each one, then click to reveal the suggested learning point next to each image.*

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You've remembered an awful lot about this lesson. Well done!

Each week, I'm going to invite you to '**have a go**' at the practice we've tried in each lesson (plus sometimes some other things as well).

This **isn't like homework** – I'm not going to ask to see evidence that you've done it, or mark you for how well it has gone. This is something just for you to try.

Remember what we learned about new skills? How do we get better at them? **We practise!**

So let's see how you get on with the counting breaths practice in your own time. It can be while you're at home, or even in school when you have a moment or two to just check in with your breath and see how many breaths you count in a minute. You can use a watch or clock to time yourself.

*You can use **WORKSHEET 4** as a way of noting down what they notice while trying out this exercise. There are also a few additional questions about the prefrontal cortex on the sheet for them to try.*

Can you remember how we learned to sit when we do this practice? *Just quickly recap on this to make sure they know how to do it on their own, and remind them to simply follow their breath for a short while before beginning counting - no need to control the breath in any way.*

I really look forward to hearing all about what you notice.



Lesson 1



Our Amazing Brain

WORKSHEET 1: Training the Muscle of Your Mind

1. Try to think of a famous person, or someone you know, who has a real skill. Maybe in sport, music or something else?

What is their name?

.....

What is their skill?

.....

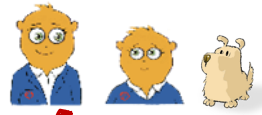
Use this space to draw a picture of this person or something to do with what they do.

2. Write down some of the things you think that might have helped them to become so skilful – these could be things they had to DO, or a particular attitude or something else.

.....
.....
.....
.....



Lesson 1



Our Amazing Brain

WORKSHEET 2:

I am good at:

Write your answers in the bubbles below.

If you need a bit of help to think of something ask a friend.



Things I did to help me be good at these things.

There might be a few. Write them on the lines below.

.....

.....

I would like to be better at:



To help me get better at these, I will need to:

There might be a few things. Write them on the lines below.

.....

.....

.....



Lesson 1



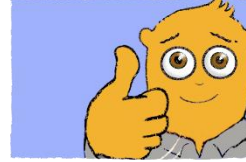
Our Amazing Brain



WORKSHEET 3: TODAY WE LEARNED.....

What can you remember from today's lesson?

Use the boxes below to describe what each picture it is all about.





Lesson 1

Our Amazing Brain



WORKSHEET 4: Have a Go!

1. On the diagram below, label where the Prefrontal Cortex is.



2. How can the prefrontal cortex helps us?

.....

.....

.....

.....

.....

.....

.....

.....



Have a Go

Counting Breaths

What do you notice?



When did I count my breaths?

What did I notice?

Our Amazing Brain

WORKSHEET 4: Have a Go!

1. On the diagram below, label where the Prefrontal Cortex is.



2. What is the job of the Prefrontal Cortex?

.....

3. What can it help us to do if we train it?

.....



Have a Go

Counting Breaths

What do you notice?



When did I count my breaths?

What did I notice?



Lesson 1

Our Amazing Brain



WORKSHEET 4: Have a Go!

1. On the diagram below, label where the Prefrontal Cortex is.



2. What is the job of the Prefrontal Cortex?

.....

.....

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.....

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3. What can it help us to do if we train it?

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Have a Go

Counting Breaths
What do you notice?



When did I count my breaths?

What did I notice?

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