brushingbuddies

A Supervised Toothbrushing Programme

Annual Report 2018 – 2019 (Year 3)



'Brushing Buddies' is a supervised toothbrushing programme within targeted schools identified in Nottinghamshire County. The Oral Health Promotion team provide schools with the knowledge, skills and resources to deliver their own unique onsite supervised school-based toothbrushing programme.

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Introduction & Background

In 2014, both NICE and PHE published key documents, which upon reviewing the evidence of effectiveness of oral health improvement programmes, both recommended the commissioning of targeted supervised toothbrushing in early years' settings, (Improving oral health: A toolkit to support commissioning of supervised toothbrushing programmes in early years and school settings, PHE 2016).

The National Dental Epidemiology Programme for England, Oral Health Survey of Five year old children completed in 2014 demonstrated that: in England 24.7% of 5 year old children surveyed had experienced dental decay, in Nottinghamshire 21% of those examined from the sample showed signs of decay. The average number of decayed, missing or filled teeth (dmft) in the whole English sample was: 0.8. In Nottinghamshire County it was 0.6, areas of Nottinghamshire County have made some progress in reducing dental decay. The National Dental Epidemiology Programme for England, Oral Health Survey of Five year old children completed in 2017 demonstrated a small improvement to 20.1% of 5 year olds in Nottinghamshire now showed signs of dental decay (an improvement of 0.9%). Nevertheless, continued support is required to ensure continued improvements in child dental health, including regular tooth brushing using fluoride toothpaste, reducing the consumption of sugary snacks and fizzy drinks and supporting access to dental services.

It is acknowledged that the dental health of individuals from the lower end of the socioeconomic scale is markedly worse than that of individuals from the upper end (Locker, 2000).

Outline of Brushing Buddies

The Brushing Buddies supervised toothbrushing scheme is an evidence-based intervention across 23 Nottinghamshire schools. The intervention aims to introduce a life skill & improve the oral health of young children. The intervention involves children aged between 3-6 years to be given an opportunity to brush their teeth during the school day, as research demonstrates that the application of fluoride toothpaste in a supervised school-based intervention can have a significant effect on children with high caries risk (Curnow et al., 2002).

The Aim

The aim of the programme is to utilise 'teacher power' by training and empowering teaching staff to become 'brushing buddies' supporting their students. After receiving training onsite to accommodate the individual needs of the school site, staff and students, schools receive resources and materials to deliver the programme under the regular monitoring and careful supervision of the Oral Health Promotion Team.

The Oral Health Promotion Team targets the most deprived wards within Nottinghamshire County. The programme is based on evidence of good practice (Childsmile, Designed to smile and Bradford's Building Brighter Smiles).

The programme was commissioned to commence April 2015.

The first year focused on nursery children (cohort 1) to deliver the programme where children will be supervised to brush their teeth once a day.

The second year followed cohort 1 in to reception (foundation 2) but also embraced the new nursery children (cohort 2).



The third year will follow cohort 1 in to year 1, follow cohort 2 in to reception and embrace the new nursery children (cohort 3).

The aspiration is that everyone should brush twice a day, but for the purposes of Brushing Buddies the focus is toothbrushing once a day in school but also encouraging parents to continue to help children to brush their teeth twice a day at home.

The Target

Targeting of the programme is important. The evidence states that supervised tooth brushing programmes are more effective in areas of high tooth decay rates and less effective when children are already brushing their teeth at least twice a day with fluoride toothpaste. The positive impact on inequalities depends on appropriate targeting of high risk populations, high engagement rates, compliance and retention. Successful implementation depends on engaging with parents, schools and early years settings. The Oral Health Promotion Team monitors and ensures teacher supervision and provides ongoing support in terms of training, cross-infection control and consent for participation.

Brushing Buddies is also supported by the Teeth Tools for Schools curriculum based resource for teaching staff, in 2016-17 at least 74% of <u>all</u> Nottinghamshire County schools were actively using the educational resources (100% of Brushing Buddies schools). In 2017-18 this grew to 94% (100% Brushing Buddies schools) which was attributed to the introduction of a FREE online version available through the Oral Health website www.nottinghamoralhealth.com. 2018-19 saw many changes in schools, every school was contacted by email, survey monkey and also telephone to capture the most up to date data. 282/284 schools responded (99%) where upon 195 (66%) were actively using the resource, 87 schools pledged to use it in the very near future. 2 schools did not respond to any method of communication.

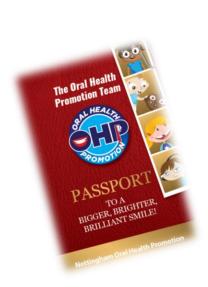
Area	2013	2014	2015	2016	2017	2018 New System
Bassetlaw	30/50	34/50	25/50	28/50	49/51	50/50 (100%) Contacted
	(58%)	(68%)	(50%)	(56%)	(96%)	30/50 (60%) Using 20/50 (40%) Pledged
Mansfield	19/35	22/55	31/35	29/35	34/35	35/35 (100%) Contacted
	(54%)	(62%)	(89%)	(83%)	(97%)	24/35 (69%) Using 11/35 (31%) Pledged
N & S	21/47	29/47	29/47	39/47	44/47	45/46 (98%) Contacted (Minster)
	(45%)	(62%)	(62%)	(83%)	(94%)	27/46 (59%) Using 18/46 (39%) Pledged
NNE	18/41	34/41	34/41	31/42	37/40	41/41 (100%) Contacted
	(44%)	(83%)	(83%)	(76%)	(93%)	27/41 (66%) Using 14/41 (34%) Pledged
NW	21/36	25/36	35/36	35/36	36/36	35/36 (97%)Contacted (Beeston Rylands Jun)
	(58%)	(69%)	(97%)	(97%)	(100%)	29/36 (81%) Using 6/36 (17%) Pledged
Rush	19/38	24/38	29/38	17/38	32/38	39/39 (100%)Contacted
	(50%)	(63%)	(76%)	(45%)	(84%)	29/39 (74%) Using 10/39 (26%) Pledged
Ashfield	18/38	21/38	15/38	30/33	36/38	37/37 (100%) Contacted
	(47%)	(55%)	(39%)	(91%)	(95%)	29/37 (78%) Using 8/37 (22%) Pledged
County	146/285 (51%)	189/285 (66%)	198/285 (69%)	209/281 (74%)	268/285 (94%)	282/284 (99%) 195/284 (69%) Using 87/284 (31%) Pledged 2/284 Unable to contact = 0.7%



Brushing Buddies Resources

The chart below outlines the resources required for a class of 30 children.

- Fluoride Toothpaste (50 tubes per year)
- Age-appropriate toothbrush (8 per child per year)
- Storage units (1 x 20 hole, 1 x 10 hole or 1 x 30 hole)
- Plates (2 plates)
- Take home pack (toothbrush and toothpaste)
- Oral Health Passport (1 per child)
- Electronic resources (Guidance document, wall chart, toothbrushing charts, certificates, parent leaflet, consent form, cleaning chart etc)
- Set of story books (also electronic copy shared)
- Copy of teeth Tools For Schools Educational Resource (Electronic copy also shared)

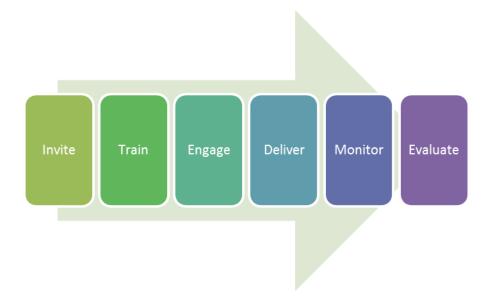






Process Plan

To ensure consistency, co-operation and full engagement, a simple six step system is followed.



Invite: Formal invitations sent to Head Teacher and Nursery/Foundation Lead.

Train: All staff associated with the programme are trained before commencement of programme. This ensures all staff are competent and confident to support the programme delivery as well as able to support children and families. *Refer to Appendix 1: Brushing Buddies Training Outline*

Engage: Schools are encouraged to engage with families to ensure maximum consent and promote good oral health at home. The Oral Health Promotion Team supports each site with a range of promotional activities and resources. *Refer to Appendix 2: Brushing Buddies Core Offer*

Deliver: Every child is offered the opportunity to brush on site once a day.

Monitor: The Oral Health Promotion Team visits each site a least once a term to ensure best practice is followed and reduce any risk factors.

Evaluate: Evaluation is ongoing with teachers, families and children.

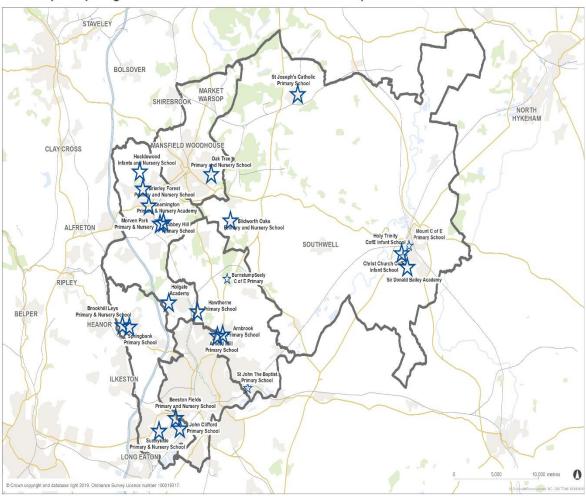


School Details

Following instruction and ongoing data provided by Commissioners, 20 Nottinghamshire County schools from the most deprived wards were invited to participate within the "Brushing Buddies" Programme.

Figure 2 Map of Nottinghamshire County Brushing Buddies Schools 2018/19

Schools participating in the Notts Oral Health Promotion Service | 2019





Who is involved in delivering Brushing Buddies?

It is important to appreciate the diversity of each individual school and child. Every school is running the programme to accommodate their unique facilities, workforce, fluctuating numbers and the autonomous child in addition to a tight demanding curriculum. Brushing Buddies relies upon the support from a variety of staff, support workers, families and students to enable it to be successful. From 2017 every school will be 'buddied' with a local dental practice to promote the importance of dental access and encourage a strong working relationship.



Programme variations

Every Brushing Buddies school has an individual way of delivering the programme with in their school. Some examples include:

Carpet/Table Area Brushing Techniques

This year the majority of three – four year olds (F1), four - five year olds (F2) and five to six year olds (Y1) sites are tooth brushing in a dry area, often a carpet area or table top. Brushing Buddies in Nottinghamshire County has 23 F1/F2/Y1 sites participating in this way.

Sink Area Brushing Techniques

This year saw just 2 classes from the 23 sites preferring a sink method.

Additional input

There are now 4 sites where the preschool (2-year olds) have been included. These sites all currently follow the carpet/table method.







School Engagement

To support the Brushing Buddies programme an array of additional oral health engagement activities are offered and arranged.

- Assemblies (whole school and year group)
- Tales with the Tooth Fairy
- Parent workshops
- Health Events
- Story Café
- > Stay and play sessions
- Transition sessions
- > Media opportunities; radio and television interviews

"A little girl in nursery refused to toothbrush at first and it took several weeks to coax her in to holding a toothbrush with toothpaste on and now she toothbrushes in a group every "day" 15.01.19











Evaluation Methodology / Outcome evaluation

	School	2 Year	Nursery	Reception	Year 1	Consent %
		Old Unit				
1	Abbey Hill Primary School	32	80	32	34	100%
2	Arnbrook Primary School	N/A	20	34	83/90	95%
3	Arnold Mill	N/A	33	45	N/A	100%
4	Beeston Fields Primary School	N/A	52	60	60	100%
5	Bestwood Village Hawthorne Primary	N/A	40	30	31	100%
6	Blidworth Oaks	13	50	45	N/A	100%
7	Brierley Forest Primary and Nursery School	N/A	78	60	N/A	100%
8	Brookhill Leys Primary & Nursery School	N/A	90	60	60	100%
9	Burnt Stump Primary	N/A	3	10	N/A	100%
10	Christ Church CofE Infant School	4	22	30	32	100%
11	Healdswood Infants and Nursery School	N/A	78	N/A	N/A	100%
12	Holy Trinity (Replaces Mansfield Primary / Park Gate)	N/A	60	45	N/A	100%
13	Holgate Primary	N/A	78	60	N/A	100%
14	John Clifford	N/A	32	60	N/A	100%
15	Leamington Primary and Nursery Academy	N/A	100	60	60	100%
16	Morven Park Primary and Nursery School	N/A	60	60	60	100%
17	Mount CofE Primary and Nursery School	N/A	60	30	60	100%
18	Oak Tree Primary and Nursery School	N/A	60	40	30	100%
19	Springbank Primary School	N/A	50	30	30	100%
20	St Johns C of E Primary	N/A	N/A	30	29/30	98%
21	St Joseph's Catholic Primary	N/A	60	30	30	100%
22	Sunnyside Spencer Academy	N/A	46	30	N/A	100%
23	Sir Donald Bailey Academy Leaving Summer 2019	32	178	45	N/A	100%
	TOTAL	81	1252	938	599/647	2910/2918
						(99.7%)
						*8 non
						consents
						in Year 1









Process evaluation

A. Parents

The Oral Health Promotion Team offer parent engagement opportunities to all schools.

All parents are invited to complete a questionnaire prior to commencement of Brushing Buddies. To date: 314 parents have responded from Nottinghamshire County (3% stated their child did not have their own toothbrush at home, 34% of parents stated they struggled with toothbrushing at home and 36% stated their children struggled with toothbrushing at home, 22% stated their child only brushed once a day, 94% stated they knew how to find a dentist yet 28% had not yet been to the dentist, 11% of those that had been to the dentists needed treatment, 25% stated their child still used a bottle/dummy, 83% felt toothbrushing at school would help at home).





Post parent engagement comments include:

A father said "My little girl hated tooth brushing before, but now she encourages the whole family to toothbrush."

A Mother said "I have really noticed a difference during tooth brushing at home, it is much easier."

A Mother said "My child is much happier visiting the dentist and engages in teeth matters."

A Parent said "My child has shown her 2 siblings how much toothpaste they should be using."

Three Parents stated they were pleased how the 2 minute timer had helped their children brush for longer.



B. <u>Teachers</u>

Pre-programme:

During 2016-17 in Nottinghamshire County 183 teaching staff were trained to deliver the Brushing Buddies programme where 100% felt it had increased their knowledge and confidence and were motivated to commence. In 2017 -2018, 60 additional staff were trained where 100% felt it had increased their knowledge and confidence and were motivated to commence. In 2018- 2019, 140 staff were trained, 100% felt their knowledge and confidence had increased. This year saw the introduction of all staff being encouraged to attend a refresher training session at the beginning of the New School Year. This was to ensure knowledge was kept high, poor habits kept to a minimum and the confidence of the current staff could help motivate new staff. This will become standard practice for the new school year - September 2019.

Comments from teaching teams included:

- "We are feeling really confident and can't wait to start in 2 weeks' time" Sir Donald Bailey
- "We are feeling really positive but not sure what time we will brush yet, we are really excited about the parent engagement activities" Butlers Hill
- "We are really keen to start the programme with Nursery" Arnbrook
- "We are really excited about taking part with Brushing Buddies as we were part of the pilot programme"
- "A little boy in nursery refused to even hold his toothbrush at first but once he saw the other children toothbrushing he joined in." Springbank

Post Programme Evaluation:

Nottinghamshire County schools took part in an end of year evaluation. All attended a training session (100%) and all stated they increased in confidence and knowledge.

When asked what they enjoyed the most about the programme, some stated:

"Enjoy talking about the health impacts of brushing your teeth" Christ Church

"The progress the children have made throughout the programme" Jeffries

- "I think that knowing that we have made a difference to the health of our children's teeth" St Josephs
- "Watching the children gain confidence through brushing at school" Abbey Hill
- "The children's enjoyment and excitement of brushing their teeth in school" Leamington.
- "That this educates both the children and their parents. It also gives children an extra opportunity to be independent" Oak Tree Lane
 - When asked what they enjoyed least about the programme, some schools stated nothing but other comments included:
- "At the beginning it was difficult to fit everything in that we do in nursery, but we worked hard together and now it flows really well" St Josephs
- "Washing the toothbrush rack on a weekly basis" Abbey Hill.
- "Fitting it into the busy day" Leamington.



• Other comments include:

"We use this to aid phonics, maths and PSHE" Christ Church

"Children are very engaged and show high levels of enjoyment, routines are now in place and it is very successful" Jeffries

"Thank you for everything and we look forward to working with you again in September" St Josephs

"We have found the staff all very helpful, approachable and friendly. If we've needed anything they have been in touch promptly". St Josephs

"There are a few children with ASD and behavioural issues that won't brush at home but enjoy doing it in school as part of our routine" Christ Church.

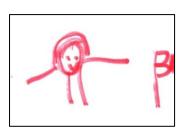
"One of our children really disliked toothbrushing at home, so we sent a tube of toothpaste and a toothbrush from school and now he enjoys it at home and school" Healdswood.

"One family said they do not like spending money on toothbrushes, so we sent some home and now all the children brush at home at least once a week" John Clifford.

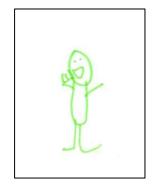
C. Students

It has proved very difficult at this age to obtain feedback without it being too directed therefore influencing the feedback. The Oral Health Team visited various schools and asked the children to draw a picture of themselves toothbrushing.

Here is a sample of the results from Reception children:















Here is a sample of the results from Year 1:

We asked Year 1 students for some feedback and 140 responded; 75% stated they enjoyed toothbrushing at school, 77% had brushed teeth at home that morning and 75% had remembered to brush teeth the night before; 82% stated they had visited a dentist.

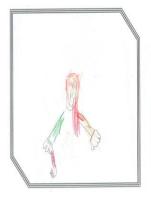
We also asked year 1 students why they thought it was important to brush their teeth, their responses included 'so your teeth don't fall out; so you do not get black teeth; to have shiny teeth; for healthy teeth.'



















Reflections from the Oral Health Team

At the beginning of the programme it was hard to imagine that schools would come on board and deliver Brushing Buddies on site in the short time available. In the beginning it was a challenge embracing some negativity from some schools and working hard with the teams to turn it into a positive experience. But now all the schools are really motivated and use their unique skills and knowledge to the advantage of their individual school, students and families.

This last year has been the most difficult year yet to motivate and encourage schools to continue with the Brushing Buddies Programme. The team have worked extremely hard to support school staff to overcome: staff shortages, reduced workforces, increasing numbers of SEND children in class with an array of complex challenges and the amount of curriculum based activities they need to complete in a



school day. This is also in addition to the additional onsite duties they need to complete.



"I am proud to say all of the schools have embraced the programme and we as a team truly appreciate how difficult it is in an already challenging environment and packed schedule; juggling OFSTED, child protection and a busy curriculum is challenge enough without the addition of daily toothbrushing. So to hear such positive feedback and amazing comments justifies all the hard work of all partners involved" Julia Wilkinson (Senior Health Promotion Specialist - Oral Health).



Recommendations

Brushing Buddies strives to constantly evolve and develop due to the active engagement of the schools and also responding to any feedback shared. Therefore the following actions have been implemented for the new school year:

Toothpaste (2016)

Feedback from staff and observations during monitoring has highlighted that some children are reluctant to "spit out" excess toothpaste. Therefore the Brushing Buddies Guidance and Training will advocate using a smear of fluoride toothpaste rather than the recommended guidance of a small pea-sized amount of Fluoride toothpaste. This should reduce any risk and reduce the amount of froth created when tooth brushing.

Toothbrush Stickers (2017)

Feedback from staff and demonstrations from monitoring visits highlighted the difficulty in putting the small stickers onto the toothbrushes to identify the child to the allocated child number. Therefore permanent marker pens were provided alongside the stickers to allow staff to write the **child's number or name onto the brush (and toothbrush racks).**

30 Hole Toothbrush Rack (2018)

The costs for the 30 hole toothbrush racks soured in 2017, therefore an alternative supplier was sought, although this took additional time to source the outcome will save costs. The new rack also introduces numbered toothbrushes too, therefore the toothbrush stickers and permanent marker pens will cease from September 2018.

New 30 Hole Toothbrush Rack and Numbered toothbrushes (2019)

The team are always looking to improve the service and commissioned a slim line version of the 30 hole rack that was locally manufactured. Listening to feedback from staff and students, the racks were also made in bright colours in addition to the matching toothbrushes having the numbers printed on them - the teaching staff have been extremely positive about the racks and the new toothbrushes as the stickers were problematic.









Summary & Conclusions

2018-19 was another successful year for Brushing Buddies, the programme continues to develop thanks to the ongoing support and engagement from local schools, parents and partner organisations. Strong foundations have been formed and are maintained with all schools and communication networks continue to grow through regular schools visits, a steady newsletter and the new "BFG" Brushing Buddies Focus Group which aims to meet twice a year at volunteer schools. Moving forward the Oral Health Team plan to offer more engagement activities within schools to ensure the teams remain enthusiastic and motivated. Flexibility is key to partnership working!

Advantages:



Challenges:



- ✓ The positive impact Brushing Buddies has made within local schools and families.
- ✓ The ongoing interest from other areas within the UK requesting information on how Brushing Buddies is implemented in Nottingham.
- Children designing the artwork that has been received well by children and schools.
- ✓ The flexibility of Brushing Buddies has enabled every school to embrace the programme uniquely to them.
- Building a firm foundation and a strong relationship with both team and school.
- ✓ Children now toothbrushing <u>at least</u> once a day.
- ✓ A new found relationship between school and local dental practice.
- ✓ Schools wanting to embrace the programme across the whole school.
- ✓ Interest from schools that are not targeted; leading the way for a potential income regeneration opportunity.
- ✓ The creation of a new oral health toolkit to support safeguarding in school.

- Accommodating varying sizes of classes and groups; matching to rack size and resources i.e. 20 children did not mean one 20 rack it could mean 3 10 racks to accommodate group sizes.
- ⚠ Gaining access to school (parking and monitoring).
- Fluctuations in school populations throughout the year.
- Appreciating the other commitments within school safeguarding, Ofsted, Christmas and curriculum.
- ▲ Concerns over the amount of toothpaste swallowed versus spat out.
- Language barriers can affect the time taken to return consents.
- ⚠ Special educational needs require further support and direction over participation.
- Keeping the schools motivated.
- Predicting the amount of stock required, usage often exceeds this.
- Staff turnover and movement through school as this means additional training sessions will need to be delivered as and when.
- Some staffing structures are not confirmed until late on in the year or early in the school year and this can make planning training difficult.

An infection control review is planned for Summer 2019 to ensure current practices remain stringent.



Planned for 2019 - 2020

Building on the success of 3 previous years and feedback from Brushing Buddies monitoring, focus groups and evaluation the following activities are proposed for the school year 2019 – 2020 in Nottinghamshire County.

Dental Access: Each school is linked with a Local Dental Practice to motivate regular dental attendance and build strong relationships for future health promotion activities. Promotional involvement including Dental Access Tickets will be offered. New schools to the programme will be associated with a dental practice within their first term. This year stronger communication will be encouraged between school and dental practice.

More engagement with parents: Active engagement with schools has demonstrated an improved relationship and enthusiasm from each school. Therefore the new school year will see more engagement opportunities with parents offered to strengthen and extend current links further, in addition to promoting home oral hygiene routines.

The wider community: Building on the success of the Brushing Buddies Task Group and now that Brushing Buddies is firmly placed in the community, the Oral Health Team will encourage increased participation and communication streams from local partner organisations such as the Healthy Schools Hub, Healthy Families Teams, Volunteers and children's centres etc. Brushing Buddies is an ideal platform to break down barriers to family engagement and support local health interaction.

Child participation: As the children move through the school and improve their ability to communicate their thoughts, the Oral Health Promotion Team will create engagement opportunities to capture this i.e. drawing competitions and focus groups.

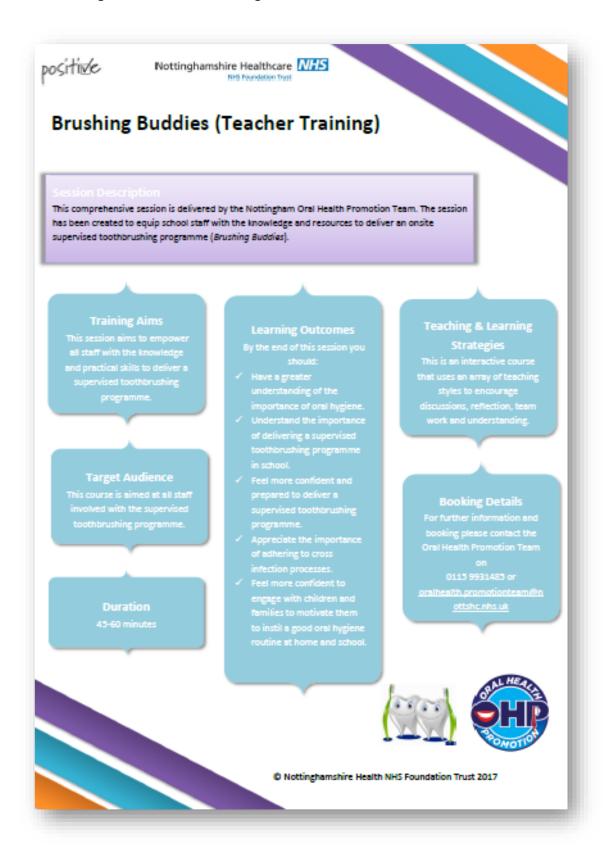
Promotional activities: To build strong relationships and to keep the schools engaged and motivated over the last 12 months the team have delivered a variety of oral health promotional activities with children and parents. Due to the huge success and positive feedback from schools, engagement activities will continue to be offered.

National Smile Month (Smiles Across The Miles): During National Smile Month 2019 all Brushing Buddies sites were encouraged to take part in a "tickle your teeth at ten o'clock for 2 minutes" on a specific during National Smile Month to raise awareness of the importance of oral hygiene. This initiative was be led by the Nottingham Oral Health Team but also delivered across Derbyshire, Derby City, Lincolnshire, Lincoln City, Northamptonshire, Leicestershire and Leicester City. The campaign will be coproduced and promoted again for 2020 following engagement with schools to ensure maximum reach and output.



Appendices

Appendix 1: Brushing Buddies Teacher Training Outline











Last but not least...

We would like to say a huge **thank you** to everyone who has been involved in the Brushing Buddies programme from development to delivery. Working together ensures Brushing Buddies embraces the diversity of each school and the autonomy of every smile.

The Oral Health Promotion Team

Stapleford Care Centre Church Street Stapleford Nottinghamshire NG9 8DB

Tel: 0115 9931485

Email: <u>oralhealth.promotionteam@nottshc.nhs.uk</u>
Website: <u>www.nottinghamoralhealth.com</u>







