



Please find the detailed lesson plan and resources for the BRIGHT (Brushing RemInder 4 Good Oral Health) trial.

### **CURRICULUM LINKS:**

#### **Scotland**

I am developing my understanding of the human body and can use this knowledge to maintain and improve my wellbeing and health.

HWB 3-15a

I am learning to assess and manage risk, to protect myself and others, and to reduce the potential for harm when possible.

HWB 3-16a

Health and wellbeing (responsibility of all) HWB: 3-14a

Science:

#### **England**

Science KS4: Health, disease and the development of medicines

PSHE: Personal, social, health and economics.

#### **Wales**

Science KS3-4

Personal and social education framework: KS3

### **RATIONALE**

This lesson is a PSHE / HWB lesson, with elements of science and discussion. Tooth decay is a very common disease affecting one-third of young people aged 12-15 years, increasing to nearly one-half in young people living in deprived areas. Young people with tooth decay often complain of toothache, loss of sleep, problems eating and need to take time off school. The treatment of tooth decay costs the country a lot of money. In England it costs over £3.4 billion each year and in Scotland NHS dentistry generally cost around £286 million – just imagine what else that money could buy if everyone had less tooth decay?

Brushing teeth twice a day with a fluoride toothpaste, for two minutes, greatly reduces the chances of developing tooth decay. This lesson aims to develop learners understanding and knowledge about the importance of tooth brushing as a method to prevent dental caries. This will be achieved by strengthening their approach to brushing their teeth properly and enabling them to consider their motivations for brushing their teeth. In addition, learners will be guided to reflect on their barriers to tooth brushing and will be encouraged to complete an action plan, in order to take responsibility for their dental health and wellbeing.

Please take time to complete each part of the lesson, as these are necessary for successful intervention.

### **LEARNING OUTCOMES**

- To develop my knowledge and understanding of dental health
- Improve practical skills in effective tooth brushing
- Identify barriers and solutions for effective tooth brushing.

### **SUCCESS CRITERIA**

- Evaluate the reasons for brushing teeth and identify consequences of not brushing teeth, twice a day for 2 minutes with fluoride toothpaste.
- Identify common barriers that prevent young people from brushing their teeth and suggest solutions.
- Identify my own barriers to tooth brushing and work out solutions to these barriers.
- Set a goal for tooth brushing, by identifying the two times in the day, for tooth brushing.

### **RESOURCES**

- Post-It notes
- Photographs on Powerpoint slide
- Young person tooth brushing factsheet
- Effective tooth brushing video
- Young person booklet

## TEACHERS GUIDE

### Introduction (2 minutes)

Resources:

- Post-It notes
- Completed table for after the think-pair-share activity.

Introduce the learning intentions and the success criteria to the pupils and share with them the purpose of today's lesson is to:

- To develop my knowledge and understanding of dental health
- Learn how to brush your teeth properly.
- Identify barriers and solutions to improving dental health and make a plan for tooth brushing

Introduction:

Brief introduction about health and the importance of looking after yourself – one area that can often be neglected is dental health. Today's lesson will give you some reasons to consider improving your dental health.

### Think-Pair-Share (10 minutes)

**THINK** about the benefits of tooth brushing and the risks of not brushing. **PAIR** up with a partner and **discuss and identify** benefits of regular tooth brushing and risks of not brushing teeth. Pupils can use one Post-It for each answer and pin these on a wall to **SHARE** with the class. We would ask the teacher to put this table onto a white board to allow the pupils to post their answers.

Teacher can group responses and summarise the key benefits of tooth brushing and risks of not brushing. Please ensure that the learners identify all of these benefits and disadvantages. This table can be shared with the learners:

<b>Benefits of tooth brushing</b>	<b>Disadvantages of not brushing teeth.</b>
Your mouth will feel clean and fresh	Your mouth will not feel clean and fresh There will be more bacteria (germs) living in your mouth
You will remove the plaque from your teeth so they will look clean	Plaque will build up on your teeth and make them look dirty
You will remove the food that sticks in between your teeth	Food will stay trapped in between your teeth.
Your breath will smell nice and fresh	Your breath will become smelly
Your gums will look healthy	Your gums will look red and start to bleed when you brush them.

You will stop yourself getting holes in your teeth (tooth decay) so they will stay stronger for longer	You will get holes in your teeth and your teeth will start to hurt and need treatment by a dentist
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Ask the pupils to identify which of the benefits is most important to them.

**Teaching Learning Intentions (10 minutes)**

**Resources:**

- Factsheet
- Photographs

Using the photographs, this is an opportunity for the young people to learn about tooth decay. The main learning points are that brushing teeth with a fluoride toothpaste removes plaque and reduces the chances of tooth decay. Please use the information; to teach the young people the science behind tooth decay and this may encourage them to brush their teeth.

**Photograph 1: Plaque on teeth**

Plaque is a sticky film of millions of harmful germs (bacteria) that coats your teeth. The harmful germs in plaque produce acid from the sugar you eat and drink. This acid causes holes in your teeth because it destroys the tooth surface which is called 'enamel' and then the layer under it, the 'dentine'. Plaque also makes your gums red, swollen and bleed when you brush them. When plaque stays on your teeth for a while it goes hard and forms tartar.

Brushing your teeth with a fluoride toothpaste removes the plaque, stops the harmful bacteria multiplying in your mouth and stops tooth decay and gum disease. Fluoride is a naturally occurring chemical compound that strengthens the enamel to stop tooth decay.

**Photograph 2: Tooth decay**

Tooth decay is when holes form in teeth and this leads to toothache, problems eating and drinking and wakes people up in the night. Tooth decay also looks bad, stops people smiling, having fun and makes them feel grumpy. If tooth decay is not stopped it can result in an abscess (a pus filled lump).

It is important that you brush your teeth with a fluoride toothpaste to stop the holes starting and from getting any bigger. You should see a dentist regularly so they can check your teeth and help repair them if you have any holes in them.

**Photograph 3: Tooth brushing**

Solution: There is a simple solution to all this and it is brushing your teeth properly. If you brush your teeth properly for 2 minutes twice a day with a fluoride toothpaste you reduce your chances of having tooth decay by 50% (half). You should use a toothpaste containing at least 1350 parts per million of fluoride, it usually says ppm F

. Always try to brush your teeth at night – when you are asleep germs produce lots of acid that will stick to your teeth and cause tooth decay.

### **Tooth brushing properly! (10 minutes)**

#### **Resources:**

- **Video**
- **Tooth brushing factsheet**

Brushing teeth is very important and we can see some of the areas of people's lives that it is important for. The key message to get across to the children is that brushing teeth twice a day, with a fluoride toothpaste can make help to prevent dental caries (holes in teeth). We want to make sure pupils are confident in how to brush their teeth properly.

Pupils will watch a video about tooth brushing and there is a fact sheet of frequently asked questions about tooth brushing.

<http://www.colgate.com/en/us/oc/oral-health/basics/brushing-and-flossing/video/how-to-brush-video>

In summary, the important things to remember for tooth brushing properly are:

- Use a fluoride toothpaste – look for at least 1350 ppm Fluoride
- Brush twice everyday
- Brush for 2 minutes
- Make sure you brush **all** your teeth in your top and bottom jaws, remember to brush the back teeth as well as the front teeth.
- Plaque often gets trapped where your teeth meet your gums so try to take extra time to clean here and watch yourself do it in the mirror to make sure you get it all off.
- After you have brushed your teeth just spit out the toothpaste into the sink – don't rinse you mouth with lots of water or you will wash away the fluoride

### **Making your own tooth brushing plan**

- **Stevie's Story**
- **My Tooth Brushing Plan**

Case Study (10 minutes)

Introduce the case study: Stevie.

The young people can read through the case study and **identify the barriers** Stevie may face. The teacher can discuss the barriers and solutions that the pupils may come up with such as:

<b>Barriers in the morning</b>	<b>Solutions</b>
Not waking up in time or being too comfy to get out of bed	Set a noisy alarm to help wake you up and make you get out of bed. Brushing your teeth will help you wake up and your mouth feel fresher.
Spending too long doing your hair	Having teeth that look good is as important as having nice hair. Make yourself do your teeth before fixing your hair – or while you wait for your straighteners to warm up!
Going to be late for school	Get up in time to brush your teeth – it only takes two minutes
<b>Barriers in the evening</b>	<b>Solutions</b>
Watching too much TV / Netflix/YouTube	If you think you are going to forget to brush your teeth at night time – brush them before you start watching or between clips/during the adverts.
Being too busy playing computer games or chatting to your friends online	Take a break for 2 minutes to brush your teeth and tell your friends to go and brush their teeth too. You won't miss much in 2 minutes.
Falling asleep	If you make yourself brush your teeth when you go to the toilet before you go to sleep you won't forget

After discussion, the pupils can write some advice to Stevie, on how to improve his tooth brushing habits.

### **My Tooth Brushing Plan (10 minutes):**

Learners should complete the My Tooth Brushing Plan worksheet. This will allow them to reflect on their own barriers to tooth brushing. Please support the learners to identify their motivations for brushing their teeth (what's important to them) from the list of benefits used at the start of the lesson. These could be displayed on the board to help the learners select. Encourage them to identify exactly when and where they will brush their teeth.

It is important that the young people complete this section, since it will help them to identify barriers, set goals and plan when they can brush their teeth. This section is essential for the intervention.

### **Plenary**

To bring this lesson to an end, we will ask the learners to take part in the 3,2,1 game.

Pair up learners and ask them to tell each other

- 3 things I learnt
- 2 questions I want to ask
- 1 thing I already knew

Following this lesson pupils will then start receiving text messages from their phones from the BRIGHT team.

***Please ask pupils to text the BRIGHT team on 07537416903 if they have changed their phone number, they need to include their old number in the message.***

Lesson plan devised by Donna Dey, School of Education, Social Work and Community Education at the University of Dundee and Professor Zoe Marshman, School of Clinical Dentistry, University of Sheffield on behalf of the BRIGHT trial.

### **Funding acknowledgement**

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**Photograph 1 – Teeth with and without plaque and tartar**





**Photograph 2 Tooth decay**



By Suyash.dwivedi (Own work) [CC BY-SA 4.0  
(<http://creativecommons.org/licenses/by-sa/4.0>)], via Wikimedia Commons

**Photograph 3 Tooth brushing**

