



Key Stage 2 Lesson Three

Sugar & Our Teeth

Oral Health Foundation
KEY MESSAGE
for this lesson

Have less sugary
foods and drinks.

KS2 LINK for this lesson

PHSE - Health & Prevention

- about dental health and the benefits of good oral hygiene and cleaning between teeth, including regular check-ups at the dentist
- how to make informed choices (including recognising that choices can have positive, neutral and negative consequences) and to begin to understand the concept of a 'balanced lifestyle'

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SUGAR & OUR TEETH

DISCUSSION: Sugar in our diet, reacts with bacteria in our mouths. This creates plaque acids (plaque is the soft, sticky deposit) that is always forming on our teeth.

It is the plaque acid that attacks the enamel on our teeth, causing dental decay.

What happens in our mouth when we eat or drink?

Our mouths are normally pH 7 (neutral). Acidity is measured by its 'pH value', and anything that has a pH value lower than 7 is acidic. 5.5 is very acidic and can dissolve tooth enamel.

When we eat or drink anything, the pH level in our mouth drops from neutral to acidic. This is due to the plaque acids that have been produced.

This means that our mouth is under an 'acid attack'.

It takes the saliva in our mouth one hour to neutralise this acid and return our mouth to neutral pH.

We can help this process by drinking water or milk after eating.

Stephan Curve

Every time we eat or drink anything containing sugar, the enamel on the teeth is demineralised (softened).

The Stefan curve, shows what happens to the pH (acid) in the mouth when we eat and drink. The curve shows that the enamel on the teeth is weakened and the pH (acid) drops into the danger zone. If you brush too soon, you could be brushing away small particles of de-mineralised (softened) enamel, which could lead to dental erosion. It can take up to one hour for the mouth to neutralise the acid using its own bacteria to return our mouth to neutral pH (acid).

So teeth shouldn't be brushed for one hour after eating or drinking anything, until the pH (acid) is back in the safe zone.

Activity – Draw your own Stephan Curve

DISCUSSION: Sugar

We all know that sugar is in sweets, fizzy drinks etc.

However, there are many foods and drinks that have sugar 'hidden' in them. Some of these foods and drinks may surprise you.

Recommended maximum daily amount of sugar:

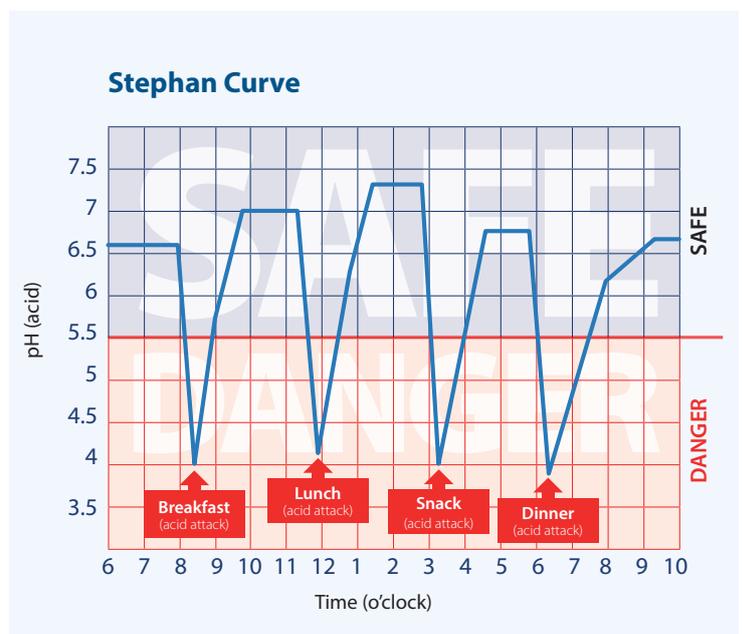
5 teaspoons for 4-6 years

6 teaspoons for 7-10 years

7 teaspoons for 11+

Activities

- Use the sugar kit to find out the amount of sugar in everyday products
- Bring in snack item from home, then work out how many grams of sugar the product contains and then work out this amount in teaspoons (4g = 1 tsp)
- Create a food diary, discuss the amount of sugar and frequency in your diet.



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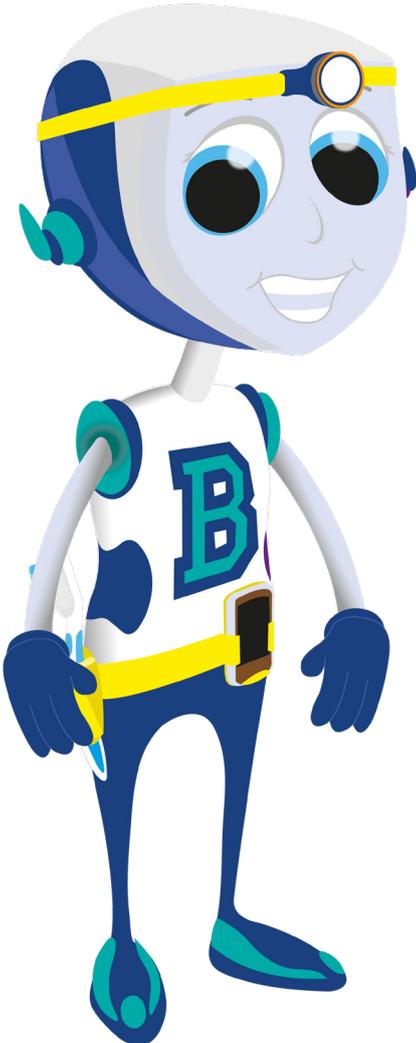
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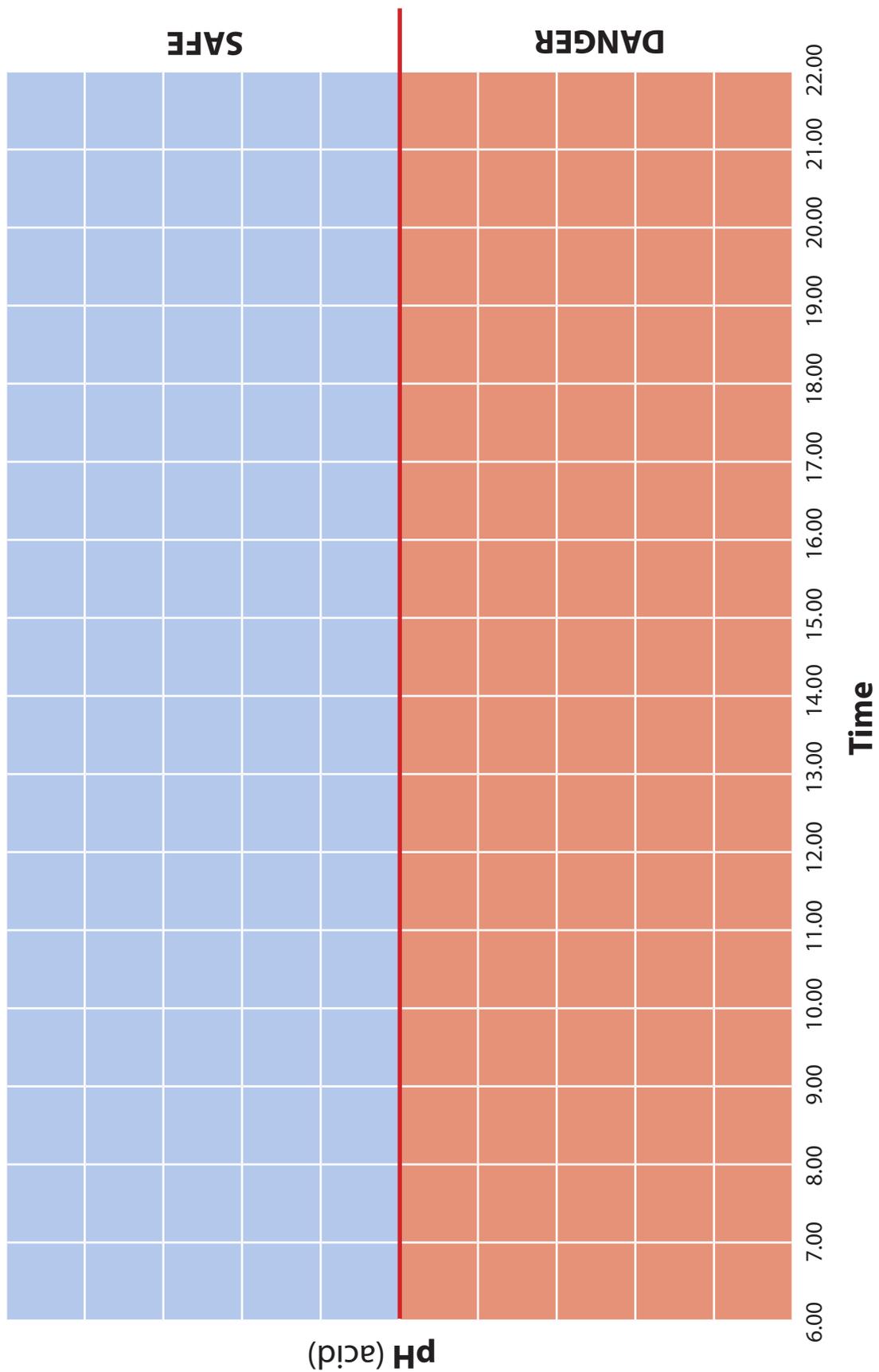
ACTIVITIES

- Draw your own Stephan Curve.
- Use the sugar kit to find out the amount of sugar in everyday products.
- Bring in snack item from home, then work out how many grams of sugar the product contains and then work out this amount in teaspoons (4g = 1 tsp). You will need either a wrapper or recipe to find out how much sugar is in the food you are using.
- Create a food diary and calculate how much sugar you eat or drink compared to the recommended maximum daily amount of 6 teaspoons (6 - 10 years). Discuss the amount of sugar and frequency in your diet.
- Survey the class and create a graph showing meals, snacks and drinks.



EQUIPMENT

- Sugar kit
- Food and drink packets
- Graph paper
- Pencils and crayons



	Snack / Drink?	Breakfast	Snack / Drink?	Lunch / Dinner	Snack / Drink?	Snack / Drink?	Tea / Dinner	Snack / Drink?	Snack / Drink?
Monday									
Tuesday									
Wednesday									
Thursday									
Friday									
Saturday									
Sunday									

I have _____ meals each day

I have _____ sugary snacks each day, between meals

I have _____ sugary drinks each day, with meals

I have _____ sugary drinks each day, between meals

What other foods/drinks did we have?

How does this compare to my classmates?

Can I have less sugary snacks and change them to savoury ones?

What could I have instead?

Could I swap my sugary drinks?

What would I like instead?

What other questions should we ask?



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