

PALACES

WWW.PALACES.ORG.UK

LESSON PLAN

Developed by Professor Sara Rankin
and primary school teacher Kathy Crook





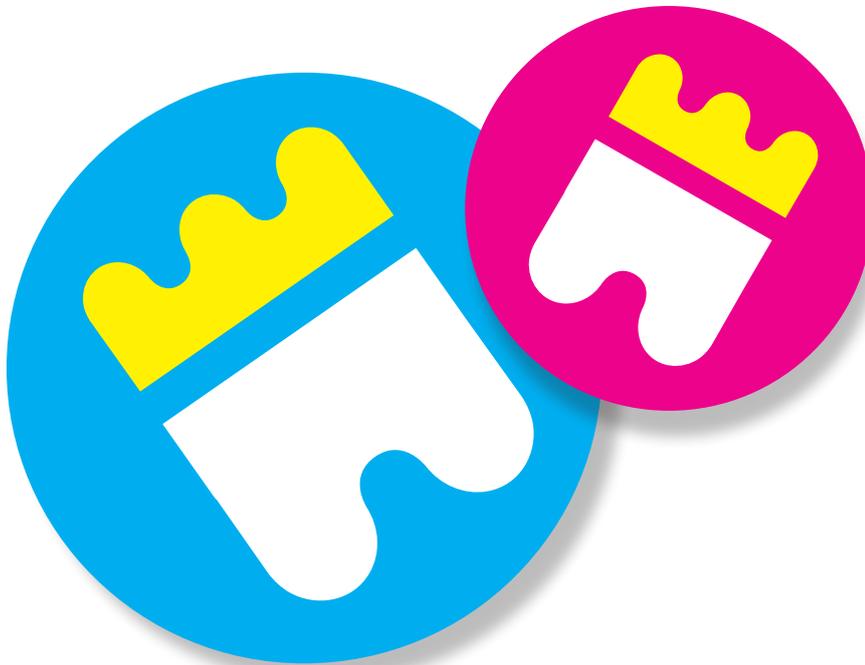
PALACES

A collaborative project between artist Gina Czarnecki and scientist Professor Sara Rankin and many others.....

AIMS

For children:

- The opportunity to get involved in a participatory piece of art – through the altruistic giving of baby teeth to create a beautiful sculpture
- Demonstration of how art and science can be linked
- Increased awareness of different cultures
- An understanding that adult stem cells, found in discarded body parts, such as milk teeth and umbilical cords, may be used to treat sick people



Supported by the Bluecoat art gallery, the Wellcome Trust and the Science Museum.

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PALACES

Year 1

Our Body

This is part of a unit on teeth and healthy eating which could follow a visit from a dentist.

Introduction:

- Look at 3D mouth (British Dental Association link) www.3Dmouth.org
- Explain that different teeth have different functions and different names. Think about the teeth of different animals and what they use their teeth for. (Manchester children's university has some fun stuff on their website)

Lesson 1

Why do we need teeth ?

- Cutting, biting food
- Chewing food
- They start the digestive process which gives us the energy we need to live.

Do all animals have the same type of teeth?

- Animals' teeth are different depending upon what foods they eat.
- Meat-eaters (carnivores) have sharp teeth
- Plant-eaters (herbivores) have flat teeth

Animals (like humans) that eat both plants and meat, (omnivores) have sharp teeth in front and flat teeth at the back

Look at 3D mouth <http://www.3dmouth.org/6/6.cfm>

Different types of teeth

- Canines – pointed for stabbing food
- Molars – flat and bumpy for chewing food
- Incisors – chisel; shaped for cutting food

Toothy facts

- Elephants have four sets of teeth in their lifetime. Their tusks are the longest teeth in the world!
- Poisonous snakes have hollow fangs which eject poison.
- Dolphins have more teeth than any other animal. Some dolphins have over 200 teeth. Scientists can tell the age of a dolphin by the rings on their teeth.
- Crocodiles have 60 teeth in their mouth at any one time and can grow up to
- 2-3,000 teeth during their lifetime.
- Sharks - lose teeth each week. They get new teeth when they lose the old ones. They may have over 20,000 teeth in a lifetime.

How many children in this class have had a tooth fall out?

Who's got a wobbly tooth?

How many of your teeth have fallen out?

Activity

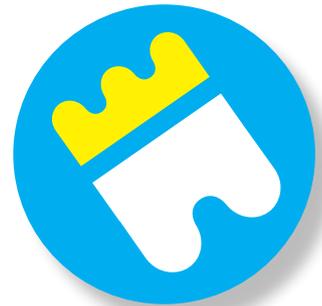
What are your experiences of losing your teeth? Talk to your partner to find out how many teeth you have lost. Make a class block graph to show whether children have lost 1,2,3,4 teeth. Or maybe none at all.... yet!

Plenary

Look at completed graph. What questions can be answered from looking at it?

What happens when your teeth fall out?

- you leave it under the pillow for the tooth fairy
- A new big (adult) tooth grows in its place



Why do we get new teeth ?

- Because teeth unlike other parts of our body (eg bones) do not grow as we get older,
- We need a new set because we are getting bigger and our mouths/jaws are getting bigger)

Lesson 2

Do you know what happens in different countries/cultures?

The tooth is the only part of the body that is discarded with living cells attached (apart from the placenta and tissue taken out during operations).

The arrival of second teeth shows that children are growing older and what happens to the baby teeth seems to differ from country to country.

Activity

Ask children to discuss with their partner what they will do with their teeth when they fall out. Tell or read a story of what happens to the tooth in a different country.

Activity

Look on the PALACES.org.uk website to hear the experiences /Listen to the stories of children from other countries losing their teeth. Using ICT (eg to animate a story) retell the story of what happens to baby teeth around the world when they fall out. You can upload the children's projects to this site to share with other schools.

Plenary

show the stories that the children have created. Maybe children have their own experiences to share with the class.

What other parts of your body fall off / come off?

- nails
- hair
- skin
- scabs (scar tissue)
- umbilical cord

Teacher notes – the umbilical cord joins the mother to the baby, It has tubes connecting the mother to the baby such that food from the mother can pass to the baby and waste products from the baby are passed back to the mother – via the blood. It is cut off after the baby is born. The end is tied and forms the belly/tummy button.

What happens to these parts of your body when they come off ?

- get thrown away, go in the rubbish, turn to dust

What else could we do with them?

- In America children grow their hair and when it is long enough they cut off 12” and send it to ‘Locks of Love’ to be made into wigs for children that are very sick (eg with cancer/ leukemia)
- Scientists use the special cells (stem cells) in the umbilical cord to make children that are sick better
- Hair has been collected from hairdressers and used to mop up oil slicks because it adsorbs oil well.
-

What does the tooth fairy do with your teeth?

- builds a palace?
- discuss ideas

When one of your baby teeth falls out you can donate it to help build the Palace

In exchange for your tooth you will get a tooth token that you can put under your pillow to tell the tooth fairy what has happened to your tooth.

The Palace will be exhibited in Liverpool at the Bluecoat gallery from Dec 10th for 2 months and then at the Science Museum in London April 7th - June 28th. It will be at other venues around the UK in 2012/2-13.

What you can do

Donate one of your milk teeth. Give your first name, the name of your school and the first part of your postcode eg NW10

We want to know how many different countries have formed the Tooth Palace.

Can you tell us where your grandparents came from?

We will use the postcode to work out where the teeth that make up the Palace come from.

We will show where all the teeth come from on a map of the UK on our website.

Homework

Ask your grandparents what they did with their baby teeth when they fell out when they were children.

- Do they know about the tooth fairy?
- Did they have a different tradition?
- Tell us about any other traditions that you find out about.

RESOURCES

On our website (teachers page)

- powerpoint presentation
- certificate/token for donated teeth
- information leaflet for children and parents about the Palace project

TEACHERS NOTES

Different Traditions

Tooth Fairy Origin

The tooth fairy evolved from an 18th century French fairy tale, in which a mouse changes himself into a fairy to help a good Queen defeat an evil King. The mouse/fairy hid under the King's pillow and tormented him, knocking out all of his teeth.

This story may also explain the origin of other traditions involving a 'tooth mouse'.

Tales of the Mouse

In several countries, it is believed that, instead of a fairy, a mouse creeps into the house and takes the tooth from under the pillow in exchange for coins, toys, or candy. In Mexico and Spain, the mouse, sometimes called Ratoncito Pérez (little mouse with a common surname) or ratón de los dientes (tooth mouse) exchanges the tooth for coins. In some parts of the Lowlands in Scotland, it is a white fairy rat which purchases the teeth for coins.

In **France**, La Petite Souris (the little mouse) replaces the tooth with a small gift or toy, whereas in Slovenia, a mouse leaves candy during the night.

The Tossing of the Tooth

The tradition to throw the tooth centers around mostly Asian countries. In **Japan** and **Korea**, the bottom teeth are thrown up onto the roof of the house, and the upper teeth are tossed underneath the home. This tradition has to do with the direction the roots grow and to ensure healthy growth.

In **Vietnam**, both the upper and lower teeth are thrown up over the house. As the tooth is thrown, the child shouts a request for his lost tooth to be replaced with a tooth of a mouse, as rodent teeth continue growing their whole life.

The **Austrian** tradition says that the baby tooth is either made into a key ring, or it is thrown over or under the house, similar to the custom in Japan, Korea, and Vietnam Warding off Evil.

It is said that the teeth, hair and nails contain a part of a person's soul, and that if a witch gains possession of these personal items, then she gains possession of the soul itself. In England during the Middle Ages, children were encouraged to drop the tooth into a fire to destroy it in an attempt to ward off evil. In present time, however, British children are told of the tooth fairy and they awaken to find money under their pillow.

Nigeria seems to have combined both this tradition with the mouse theme. The lost tooth is tossed up into the attic of the home. An incantation is said warning mice not to eat the tooth, because then a new tooth would not grow.

European children believe that if their tooth was buried in the ground, only then would a new permanent tooth grow. This also served as a way of thwarting demon possession.

Other Traditions

In **Mongolia**, the lost tooth is fed to a young dog, because the dog is considered to be a guardian angel. The baby tooth is mixed in with meat fat, and when the dog eats it, then a new, strong tooth will grow.

The tradition of throwing a baby tooth up into the sky to the sun or to Allah and asking for a better tooth to replace it is common in Middle Eastern countries (including **Iraq, Jordan, Palestine, Egypt** and **Sudan**). It may originate in a pre-Islamic offering and certainly dates back to at least the 13th century, when Izz bin Hibat Allah Al Hadid mentions it.

Italian parents simply keep the little tooth as a keepsake for their children.

In some countries, the tooth is preserved as a memorial to the passage of childhood

- In **Costa Rica**, the lost tooth is plated in gold and made into an earring.
- In **Chile**, the lost tooth is made into a charm and set in precious metal to be used as a necklace or an earring.
- In some countries, the passage of childhood is a time for hope in the future. Some parents use the teeth with the hope of gaining blessings for their children.
- In **Turkey**, parents bury their children's teeth in a location that might benefit the child's future. For instance, if the parents want their child to grow up to be doctor they will bury the teeth on the hospital grounds. If they want their child to become a college graduate they will bury the tooth in the college garden.



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CONTACT

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