Did you know that a person could be identified from the DNA in saliva left behind on a postage stamp? Or that the average person creates enough saliva each day to fill a soft-drink bottle? That teeth can survive fires reaching 2012 degrees Fahrenheit?


Find out how forensic dentists use dental records and DNA fingerprinting to solve real missing person cases, discover the telling secrets revealed by saliva and find out how your mouth is a window to health for your body.

This interactive Web site features an in-depth exploration of forensics—saliva and bioengineering as it relates to science, dentistry and oral health.

Key scientific topics include DNA, genetics, the mouth/body connection and stem cells.

Parents and middle and high school teachers looking for engaging topics in scientific exploration for use at home or in the classroom will find plenty of lessons to choose from on this site.

The lessons can also be used in conjunction with a field trip to see the Your Spitting Image companion exhibit at the National Museum of Dentistry in Baltimore or at one of the venues across the country hosting the traveling version of the exhibit (currently on view at the Impression 5 Science Center in Lansing, Mich.).

The Web site features three sections that explore the science of dentistry and oral health. In “Forensics: Solving Mysteries,” learn how forensic dentists help law enforcement identify missing persons using X-rays, bitmarks and DNA testing.

Learn how saliva protects our teeth and how our mouth is connected to the health of the rest of our body in “Saliva: A Remarkable Fluid.” The section “Bioengineering: Making a New You” explores how stem cells and genes are being used to grow replacement teeth and cure disease.

Interactive activities include:
• An exploration into how a few drops of saliva can be used to determine genetic makeup, diagnose infections and identify illegal drug use.
• A step-by-step illustration of how forensic dentists can extract DNA from a tooth to learn the identity of an unknown victim.
• An animated cartoon that shows how brushing, flossing and rinsing lead to a healthy mouth.
• A visual timeline of the various ways humankind has sought to replace missing teeth for thousands of years, from the ancient Egyptians to the future of tooth replacement.

Teacher guides included on the Web site provide easy-to-understand, illustrated, age-appropriate lessons for middle and high school students that can be used in the classroom.

All materials are designed to meet the National Science Education Standards developed by the National Committee on Science Education Standards and Assessment and the National Research Council.

The Web site also provides detailed information about the Your Spitting Image traveling exhibit and how it can be brought to communities nationwide.

The Your Spitting Image Web site was made possible by a generous grant from the Patterson Dental Foundation.

The National Museum of Dentistry
The Dr. Samuel D. Harris National Museum of Dentistry, an affiliate of the Smithsonian Institution, is a lively national center where visitors discover the power of a healthy smile and the rich history of dentistry.

Designated by Congress as the official museum of the dental profession in the United States, the museum’s collection of 40,000 objects tells the story of dentistry through changing and traveling exhibits, school tours and family days.

Highlights include George Washington’s lower denture, Queen Victoria’s personal dental instruments and an extraordinary collection of toothbrushes ranging from the 1800s to the present.

The National Museum of Dentistry is located at 51 S. Greene St. in Baltimore. Admission is $7 for adults, $5 for seniors and students with ID, $3 for children ages 3–19; and free for age 2 and under.

Open Wednesday to Saturday 10 a.m. to 4 p.m. and Sunday 1–4 p.m. Closed Mondays, Tuesdays and major holidays. Call (410) 706-0600 or visit www.smile-experience.org for more information.