

The adventures of MolarTron: A plaque-fighting hero

Story by Susan F. Urell • Art by E.L. Benson

Editor's note: The following story is about MolarTron and his friends, who seek to instill in children good dental hygiene. Read the story to the children and youth in your program and then conduct the activities on Page 6.

I'm MolarTron, and I have come to Earth with some urgency to warn all humans about the very naughty Dee Kay and the awful gang of Plaque Germs who have found the portal linking our planets. Now, these germs are very bad for Earthlings' teeth, as all of you know, and they have arrived here in search of fresh new innocent teeth to bully.

Mostly these germs like baby teeth and brand new permanent teeth, which is what children have in their mouths. And mostly the plaque germs (known on Planet Molar X as Plak-terians) are just a bunch of mean bullies. (I'm betting you might know a human bully or two of your own, so you know how mean they can be, right?)

Now, Dee Kay is the leader of the plaque bullies, and his favorite thing in the world is sugar. Well, who doesn't like sugar? But I'm here to remind you how important it is to practice good oral hygiene after school.

Did you know that if Dee Kay slaps a tooth around enough (with the acids that germs excrete after "eating" sugar), part of that tooth will start to dissolve? Then it's a big huge mess! Dee Kay and the gang will use their acid poo to make the hole bigger and deeper, until it's big enough for them to move in and stink up the place with their filth and gas!

Now, you kids can banish those plaque germs after snack time, by brushing (and flossing if you want to get down with your bad self). And I'll tell you a secret: Using a dry toothbrush (a Bristle Beast, as we call 'em on Planet Molar X) for two minutes and then rinsing it off is better than nothing. Also, just swishing and rinsing with water for a minute helps, too! Or, if parents sign an agreement, a quick minute to rinse and spit with an over-the-counter fluoride



mouth rinse can help keep teeth stronger and more resistant to the acidic bombardment of the afternoon snack time.

Now, on my planet, Planet Molar X, we have a special agent named Fluorigator.

Fluorigator and Dee Kay's families have been enemies since they were little Molarins. Fluorigator spews out a fluoride force-field around the teeth, so when Dee Kay flings an acid bomb it bounces right off the force field, thus shielding the poor innocent teeth from Dee Kay. It makes Dee Kay so angry when the acid is deflected.

But with enough hits to one plaque-laden spot, even the fluoride forcefield will fail and the tooth will have a serious hull breach through the enamel. Then, it's owie-time. This is why children must remove these Plak-terians from their poor innocent teeth after eating sugar!

Dee Kay is not fun when he has to be physically removed from a tooth by The Great Denticus. He sometimes yells. And then the little tooth might get scared.

Humans don't generally know this, but it takes about 10 minutes from the time you eat sugar to feel the fuzzy acids sizzle on your teeth. Who hasn't felt that peach fuzz on your teeth before? Then the acids linger on the teeth for about 20 minutes before it is neutralized by saliva! Every time you eat sugar, you have a 10-minute window to brush! Or, for the next 20 minutes, the acids will work to dissolve your teeth! If you like math, you can see how each 20 minutes adds up to hours, and days or weeks of acid exposure! This is a good reason to get that sweet tooth in check!

If you are going to eat sugars, as most humans will, eat them all at once! Don't space them out with a handful of candy here and a sip of soda there. Each sugary bite comes with 20 minutes of acids. And go for the liquid sugar over the sticky kinds (such as caramel). If you are eating sugary foods, try to eat them with non-sugary foods to dilute

*Please see **MOLARTRON** on page 6*

Art and developmental goals

Thinking skills (cognitive development)

- Problem-solving skills are exercised by experimenting with art supplies and observing cause and effect.
- Decision-making is constant and continuous in assembling and decorating arts and crafts projects.
- Spatial relations and visual thinking skills are engaged and strengthened.

Feeling skills (emotional development)

- Open-ended art helps children communicate real feelings and potentially have others understand them better.
- Art materials provide sensory stimulation that can be fun and provide pleasure and satisfaction.
- In the event of a crisis in your community, open-ended art provides an outlet to reduce the stress of a traumatic event.

Relating skills (social development)

- Materials are shared in an environment that encourages social interaction.
- The noncompetitive or cooperative environment of the art room helps children practice social skills.
- Shy or less verbal children often participate more comfortably with others in this cooperative arena.

Coordinating skills (sensorimotor development)

- Fine-motor skills are developed using a range of materials, craft accessories and art room tools.
- Eye-hand coordination that is developed prepares children for real-life tasks at school and home.
- Self-esteem is enhanced when a child identifies himself as being “coordinated.”

Know the theory of learning by doing

Arts and crafts offer children endless opportunities to learn by doing. And children are likely to remember what they learn.

Brain research has found that children retain information much better when hands-on activities are part of the learning. Children learn:

- 10 percent of what they read
- 20 percent of what they hear
- 30 percent of what they see
- 50 percent of what they hear and read
- 70 percent of what they say
- 90 percent of what they do.

Know at least one definition of creativity

Ask the children what they think. The potential for creativity — the act of making something new — lives in everyone. Most of us act less upon this potential every year. Our creativity becomes a memory; something we outgrew or lost along the way.

If a child grows up believing he is creative, he will have a better chance of finding constructive outlets for creative energy in later years. The child's creativity will not be just a memory; it will be a valuable personal resource to use every day.

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the sugars. It's a good excuse to have dessert before dinner (but, kids, please don't tell your parents I said so)! Now you know where dental professionals came up with the concept to brush after every meal.

When I say sweets and sugar, I mean white table sugar (sucrose), but let's not rule out the good-for-you sugars such as the sugar found in fruit (fructose) and the sugar found in milk (lactose). All sugar, in any form, may increase the risk for cavities.

If children meet Dee Kay and can't eat because it hurts, well then, there goes overall good health. Let's not forget that sugar contributes to juvenile diabetes, too, which was once a rarity in the United States. Plus, any type of diabetes can lead to gum disease.

OK, anyone who wants cavities, diabetes and gum disease from the combination of sugar and plaque germs, please raise your hand and say, "Oooh! I do!"

Let's see those hands. Anyone? Anyone? Hmmm, no takers? Well then, let's all fight plaque (and other crimes of the mouth), because Earth kids certainly don't want those ailments.

All right, I see some Plak-terians hiding over there! Let's go get 'em! Get your Bristle Beasts out of the bathroom. Ready? Aim! Brush!

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Exploring the effects of acids on teeth

Activity One demonstrates the effects of acids on soft tissues such as gums). You will need: a piece of raw meat, like a strip of steak, and some regular dark cola. (I haven't tried this with diet soda because it's nice to have the sugar present for this experiment.)

1. Open the can or bottle and pour it into a clear glass
2. Once the bubbles and fizz are calm, gently drop the meat in the glass of cola
3. Then sit back and watch the acids dissolve the meat!
If you leave it overnight, don't be surprised if the meat is gone in the morning!

Activity Two demonstrates how fluoride works. You will need: two hard-boiled eggs; some fluoride mouth rinse and a clear glass; and some regular vinegar placed in two clear glasses

1. Take one hard-boiled egg and let it sit in the glass with the fluoride mouth rinse for about a minute or two. (You can see what happens if the egg sits in fluoride for different lengths of time.)
2. Then place both eggs in the glasses of vinegar and wait
3. After about 30 minutes, feel the eggs!

What happened to the shell of the egg placed directly in the vinegar **without** the fluoride treatment?

The vinegar is acidic, just like the wastes that plaque germs excrete. The untreated egg will turn into gelatinous goo over a short time.

For some free activity pages, go to www.molartron.com/funstuff-2do.htm.