

Región de Murcia

Consejería de Educación, Formación y Empleo Dirección General de Formación Profesional y Educación de Personas Adultas





# CLAVES PARA LA CORRECCIÓN

**TAREA 1** 

6 ítems × 2 puntos ▷ 12 PUNTOS

0	1	2	3	4	5	6
Α	С	Α	Α	В	В	В

## TAREA 2

10 ítems × 1 punto > 10 PUNTOS

- 1. BACKYARD / POOLS / SPAS  $\triangleright$  3p.
- 2. BATHTUBS ▷ 1p.
- 3. TYPICALLY ▷ 1p.
- 4. FATALITIES ▷ 1p.
- 5. CLEANING UP  $\triangleright$  2p.
- 6. TOP HEAVY  $\triangleright$  2p.

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### TAREA 1 > Audio INGNICO1

#### TRANSCRIPCIÓN

BOB HIRSHON (host): Welcome to the Science Update podcast. I'm Bob Hirschon and this is the podcast for August 29th 2008. This week we are going to tell you about new developments in the fight against cancer. But first Susanne's got a story about a new treatment for leukaemia that comes from a very surprising source.

SUSANNE: So there's a narcotic pain reliever called methadone. It's claimed to fame to help people kick their addictions to opiate drugs. It does this by binding to the same receptors in the body without producing a high. Now researchers in Germany have discovered that methadone also binds to receptors on leukaemia cells. She also says that lots of leukaemia cells are resistant to both chemotherapy and radiation. But it turns out that methadone kills these resistant cells too. Friesen thinks the drug could eventually be used in conjunction with conventional therapies to treat the disease. She says further testing would also reveal whether it could be effective against other cancers as well.

BOB HIRSHON: Thanks Susanne. Well surgeons rely on their eyes. But during cancer surgery, it can be difficult for them to spot exactly where the tumor ends and healthy tissue begins. Now researchers have developed a way to light up tumors, making surgery much more accurate. John V. Frangioni is a medical oncologist at Harvard Medical School and in Boston. His team injects chemicals called near-infrared fluorophores into tissue surrounding the tumor. The researchers then shine an invisible infrared light onto the surgical field to excite the fluorophores.

JOHN V. FRANGIONI (Harvard Medical School): And in order to see those, we have our special camera that sits about two feet above the patient, and we're able to see any structure that we need to see on the surgical field.

BOB HIRSHON: Frangioni thinks the technique could revolutionise cancer surgery and could be used in the treatment of other diseases as well. Next Susanne sniffed out and exciting new research on the front lines of the battle against skin cancer.

SUSANNE: Dogs have a much more sensitive sense of smell than we do. And on a previous Science Update, we told you how dogs can detect cancer with their noses. Well that has inspired new technology that tests for skin cancer based on odorants given off by the skin. Analytical chemist Michelle Gallagher and her colleagues collected these chemicals and analyzed them using an instrument called a gas mass spectrometer. Then they compared the concentrations of these chemicals in healthy subjects to those of people with skin cancer.

MICHELLE GALLAGHER: We found that there were two compounds in particular that varied in concentration when compared to the healthy subjects. One increased and one decreased in concentration.

SUSANNE: She says analyzing odorant concentrations could one day become part of routine skin cancer screening at your doctor's office.

BOB HIRSHON: Thanks for that report Susanne. I'm Bob Hirshon, for AAAS, the Science Society.

#### TAREA 2 Audio INGNICO2

#### TRANSCRIPCIÓN

Welcome to CPSC's podcast for Friday, September 26th, 2008. I'm Patty Davis. When you think about drowning, you may think about the backyard pool. More than 280 children younger than 5 drown every year in pools and spas. But there are also drowning dangers for kids inside your home. CPSC's Julie Vallese is here with tips on keeping your children safe from in-home drowning.

Julie, what do parents and caregivers need to be aware of in their homes?

[Julie]: Well parents need to understand that drowning doesn't stop with the swimming pool. More children actually drown in bathtubs than in any other product in and around the home. So you do always need to keep a young child within arm's reach in a bathtub. From 2002 through 2004 the CPSC has reports of 221 children younger than 5 who drowned in bathing related products, such as bathtubs or baby bath seats. It's a very real risk and it's something parents need to be aware of.

[Patty]: Another drowning hazard is buckets which you would not typically think about when you think about a child possibly drowning.

[Julie]: It does seem like a place that's overlooked, but, in fact, from 1999 through 2006 nearly 100 children died in a bucket – 94 bucket-related fatalities during that time frame.

[Patty]: So that means while you're mopping you really need to keep a close eye on your toddler.

[Julie]: Well you need to keep a close eye on your toddler all the time, but it's when you're cleaning up, when you walk away to put that mop away, making sure that you're not leaving water in a bucket, that you're not leaving water in the sink, that you're not leaving it in the bathtub. These are places where children can drown and you need to know where your toddler is at all times.

[Patty]: What else can parents and caregivers do to protect children from in-home drowning?

[Julie]: Well, first and foremost, monitor your child. You have a responsibility to know where they are in your home. Often times toilets are overlooked as a drowning hazard in the home and the typical scenario involves a child younger than three years old who is top heavy. Their head makes them top heavy and they tip over, they fall in and they drown. And learn CPR. It never hurts. It's only going to help.

[Patty]: Thanks Julie. You can find more about how to prevent in home drowning at www.cpsc.gov, and while you're there sign up for recalls announced by CPSC to go directly to your email inbox. That's it for this week's podcast. Thanks for listening.