

#### FUTURE FUELS SAMPLE PROGRAM SCREENS:

This animated program for the Maryland Science Center invites kids 8-12 to explore a number of possible "future fuels" for producing electricity. I wrote the program, art directed and managed the animation and final code/program development, as well as the bilingual translation. These are 12 of 38 possible screens. All have moving animation and sound.

# from **GREEN GOOP**

tap here for  
**ENGLISH**

tocar para  
**ESPAÑOL**



to

# COW POOP

tap here for  
ENGLISH


tocar para  
ESPAÑOL



# check out **THE SCOOP** on

tap here for  
**ENGLISH**

tocar para  
**ESPAÑOL**



# **FUTURE FUELS**

tap here for  
**ENGLISH**

tocar para  
**ESPAÑOL**

tocar para  
ESPAÑOL



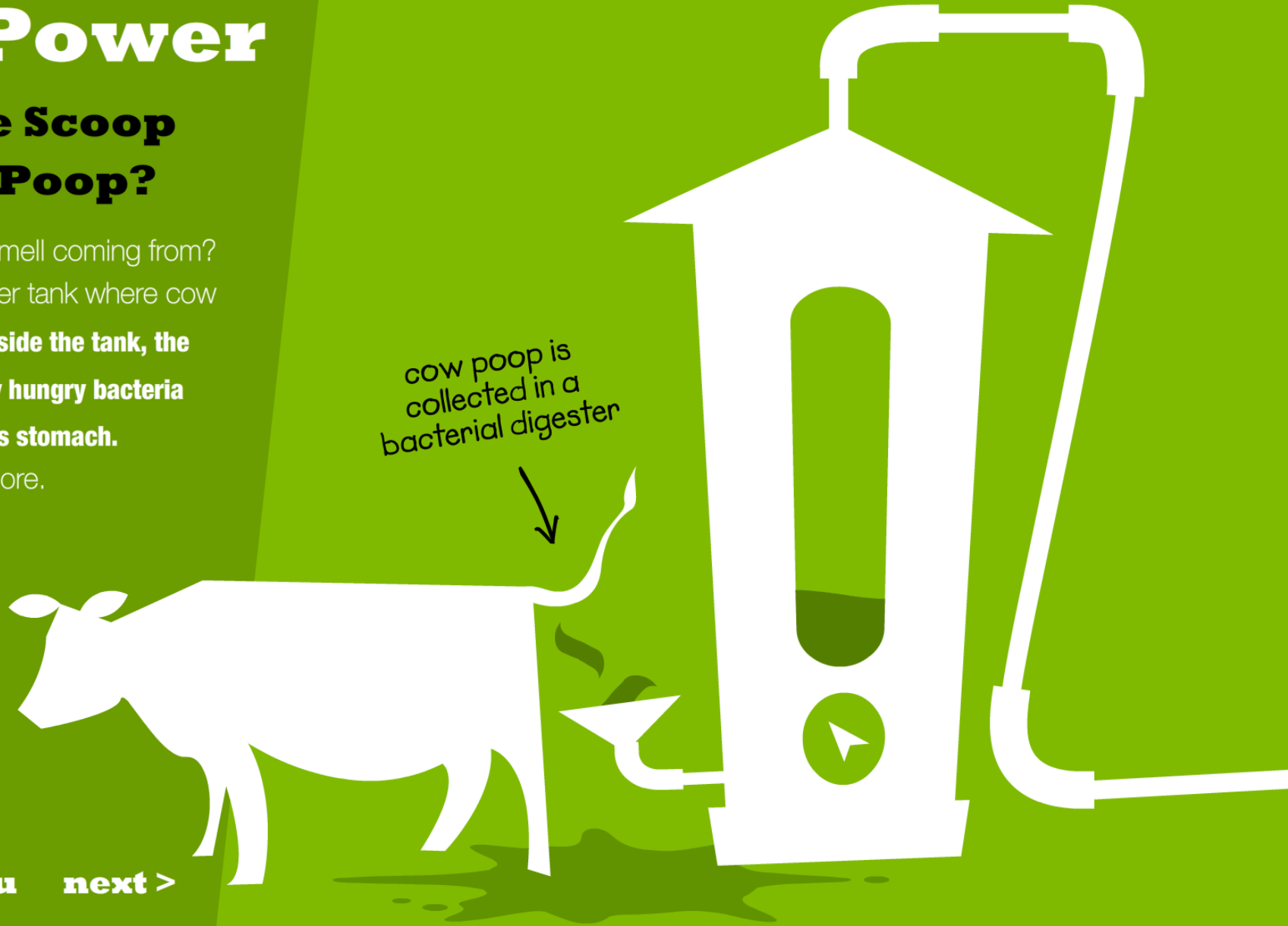
# Cow Power

## What's the Scoop on All the Poop?

Whoa, what is that smell coming from?  
This is a giant digester tank where cow  
poop is collected. **Inside the tank, the  
waste is consumed by hungry bacteria  
just like inside a cow's stomach.**

Tap NEXT to learn more.

menu next >



# Cow Power

## 100% Pure Mooclear Energy

As the bacteria digests the waste, methane gas is created. This gas is captured from the top of the digester tank and gets burned to power a generator that creates electricity.

It gets even better! By using methane as fuel, we prevent it from becoming a destructive greenhouse gas.

Mooooove over, gasoline!

...and the gas  
is burned  
in a boiler...



< back menu next >

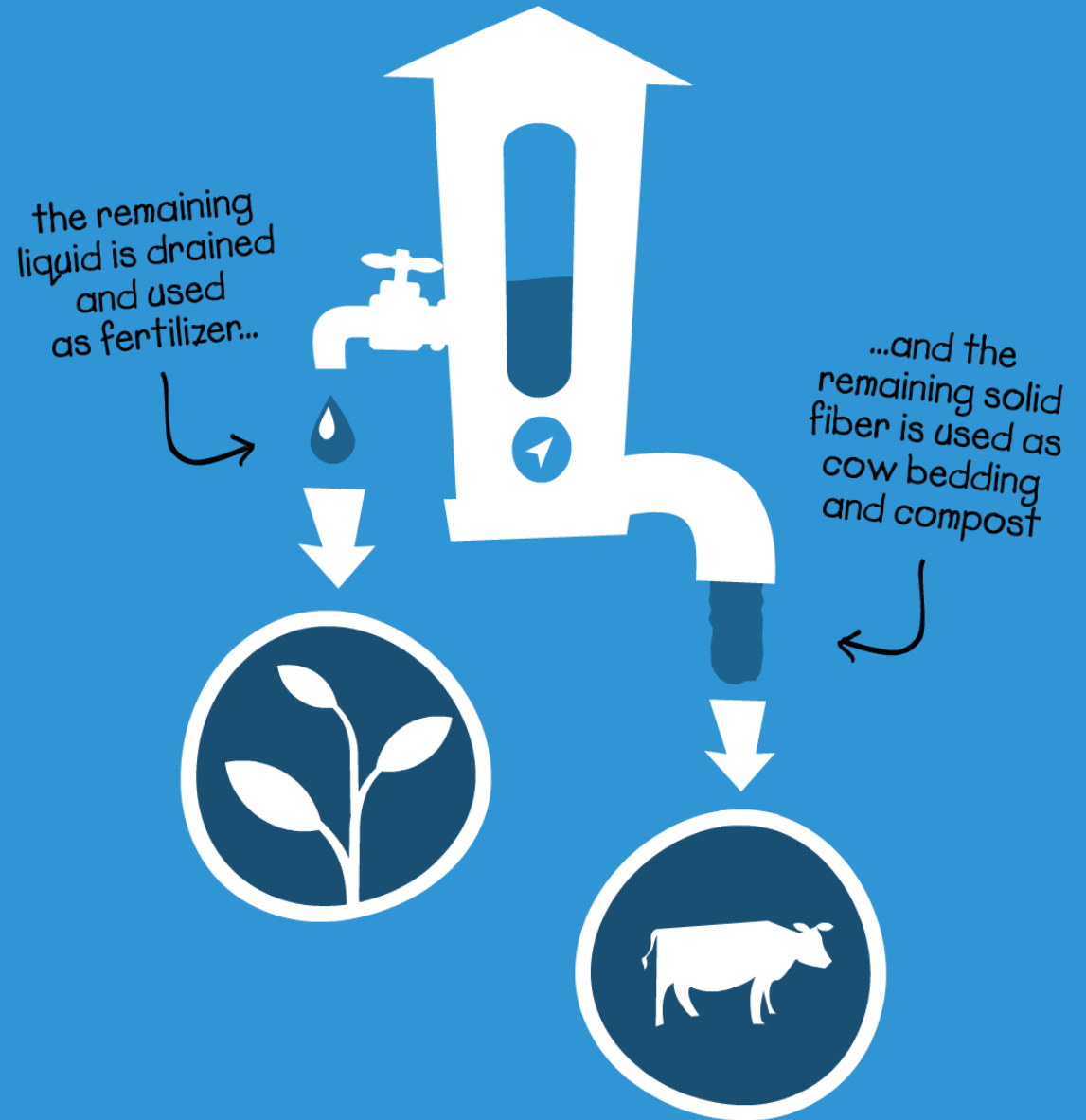


# Cow Power

## Leftovers, Anyone?

After a few weeks, the digester is drained. **The liquid is fed to plants as a nutrient-rich fertilizer. And the remaining dry fiber can be used as cow bedding and compost.** Cow power proves that udderly nothing should be wasted.

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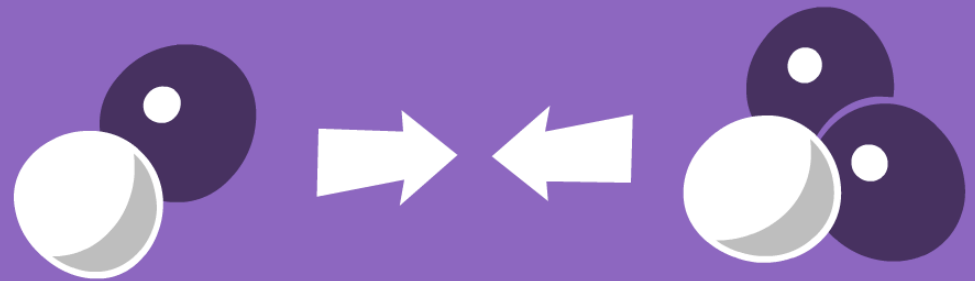
# Nuclear Fusion

## Putting the Squeeze on Electricity

While it still seems a bit like science fiction, nuclear scientists around the world are testing new ways to generate electricity. One possibility has captured a lot of attention—nuclear fusion.

**Fusion is the process of squeezing two atoms into one, which releases energy that we could capture to make electricity.**

Sounds easy, right? Tap NEXT to find out why fusion isn't hot stuff yet.



Smooosh two  
atoms together  
into one...

**menu**   **next >**

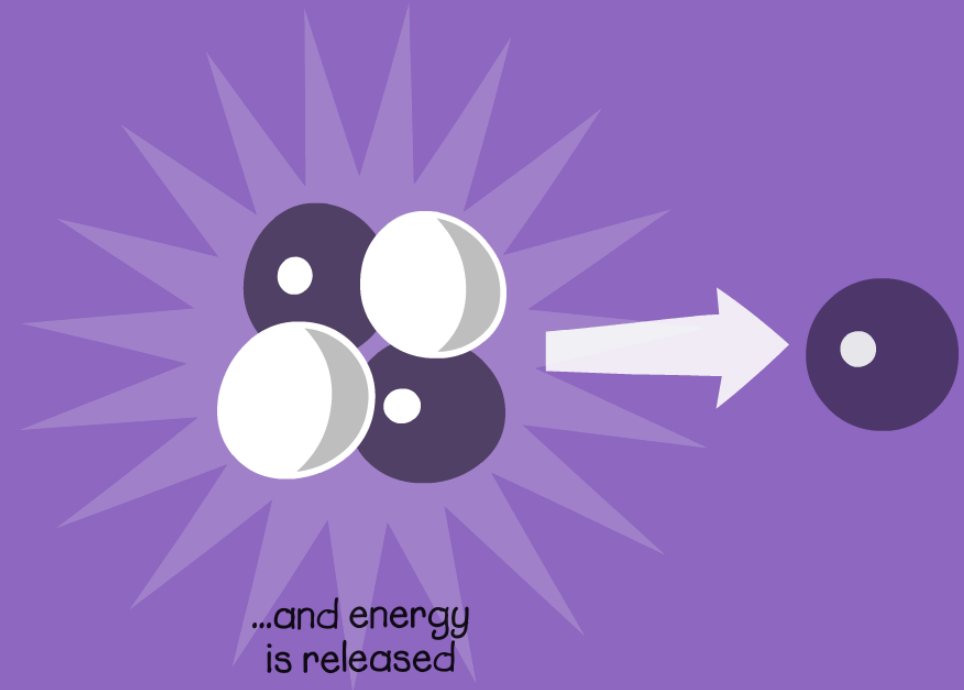
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**menu**   **next >**

# Nuclear Fusion

## But Mom, the Sun Does It! Why Can't We?

Nuclear fusion is the process that powers our sun. As atoms are forced together, they give off amazing amounts of energy that we receive as light, heat and radiation.

**So why can't we replicate that here? Because the fusion that powers the sun happens very easily when the temperature is 150 million degrees, but not at temperatures like ours.**

To create fusion, we first have to create superheated conditions, and that's hard.

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# Nuclear Fusion

## Getting Blurred Fission?

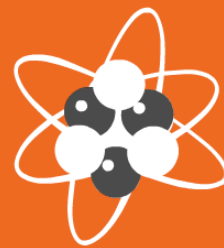
Wait a minute—don't we already have nuclear power? We sure do, but we use nuclear fission, not fusion. Fission separates atoms, while fusion fuses atoms together. Both processes release energy, but fusion is a much cleaner and more efficient process. **If we can figure out how to make fusion happen on a large scale, it has the potential to power all of our electricity needs far into the future.** And that's why scientists and engineers are working hard to figure out fusion!

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*nuclear fission  
and nuclear fusion  
are different things...*



*...fission splits atoms apart  
(we can do this now)...*



*...and fusion smooshes  
atoms together  
(we are still working  
on this one)*