

# DRILL DOWN DEEPER INTO STORIES FROM THE CORES: DEEP DARK LIFE

IN SEARCH OF EARTH'S SECRETS
A Pop-Up Science Encounter

Now that you've gotten to know the microbe characters in the Deep Dark Life game, let's look at how they compare to the real thing. (Pictures on the back).





Microbes come in three main shapes—round, rod-shaped, or spiral—but can also take weird shapes like squares or stars. Each microbe species has its own unique shape, determined by the types of proteins available to them.

#### **NUMBER OF "TAILS"**

The "tails" are called flagella and most microbe species have a specific number of them found in specific locations on their bodies. Very tiny, very complex motors attach the flagella to a microbe's body. The flagella twirl rapidly (up to 1,500 times per second!) to move the microbe in any direction.

#### **NANOWIRES**

Some species have microscopic threads that connect them to other microbes. These nanowires carry energy back and forth within the colony.

How are the characters different from the actual microbes?

#### **SIZE**

Microbes are really, really tiny—much smaller than the game characters. An average microbe is less than a millionth the width of a human hair! We can't see microbes with our naked eyes. We need powerful microscopes to see and study them.

#### **EYES**

Real microbes don't have eyes! They sense what is around them by detecting very tiny chemical changes over long distances. They can also sense light and move toward it.

#### COLORS

We made up our microbe characters' colors. Although some microbes produce pigments (and some glow!), microscopic images are generally black and white, so we don't know what colors the actual microbes are.

## Try this!

Check out the "Stories from the Core" backpack from the front desk to make your own microbe!





Learn more about how cores reveal the secrets of the deep dark life at www.insearchofearthssecrets.com.

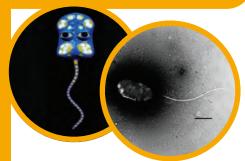


# **DRILL DOWN DEEPER INTO** STORIES FROM THE CORES: **DEEP DARK LIFE**

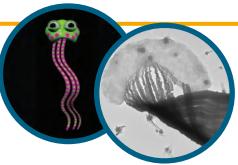


Collect your *Stories from* the Cores passport sticker

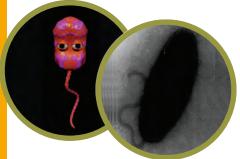
### **Meet the Real Microbes**



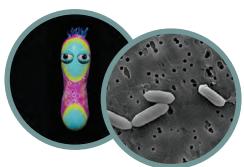
**Glow Bug is a Photobacterium** phosphoreum



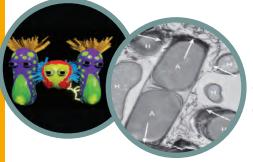
Mary is a **Mariprofundus** ferooxydans



Klastos is a **Cycloclasticus** pugetii



Kiwi is a Bacillus rigilliprofundi



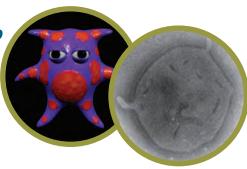
BFFs are bacteria and archaea connected by nanowires



Thanoc is a Methanoculleus *submarines* 



Sulfo is a Desulfovibrio profundus



Sour Boy is a Aciduliprofundum boonei

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