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# ATP-BIO

## COLORING BOOK





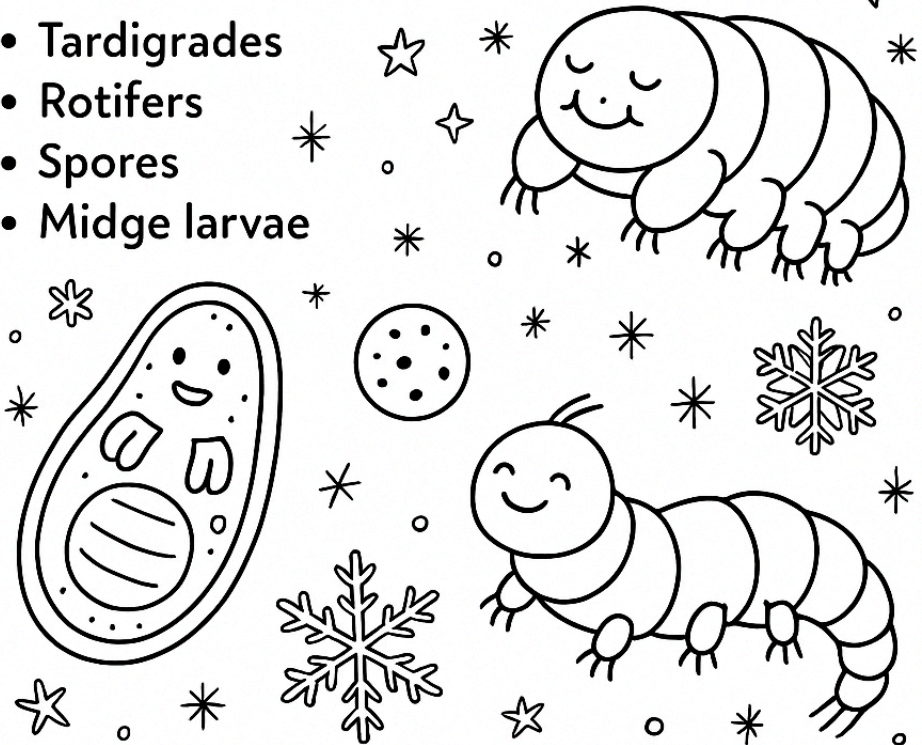
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# THE ULTIMATE NAP!

Did you know some tiny creatures pause time to survive? They can dry out, freeze solid, and even survive in space! Then, when things get cozy again—they wake right up. \* ☆

- Tardigrades
- Rotifers
- Spores
- Midge larvae



How do they do it?

They don't fight the cold—  
they freeze with it!

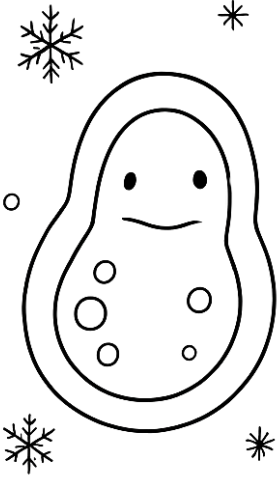


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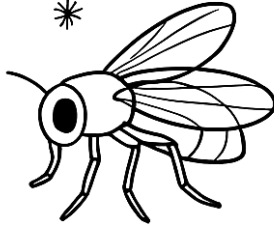


# COLD-BLOODED CRYO-CHAMPIONS

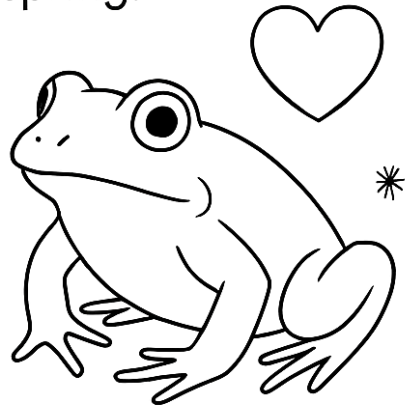
These chilly champions freeze every  
winter—and thaw in spring! \*



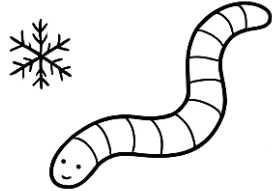
**Gall  
flies**



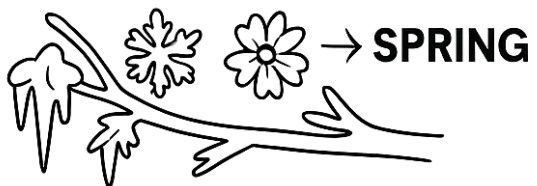
Their hearts stop  
but they are still alive!



**Wood frogs**



**Nematodes**





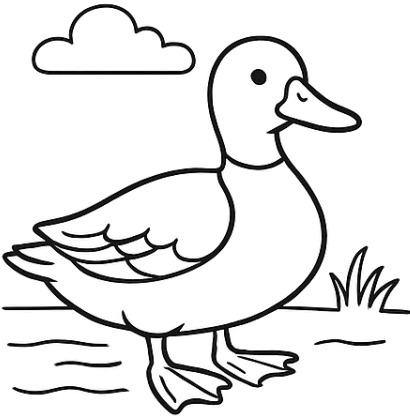


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# WARM-BLOODED WARRIORS

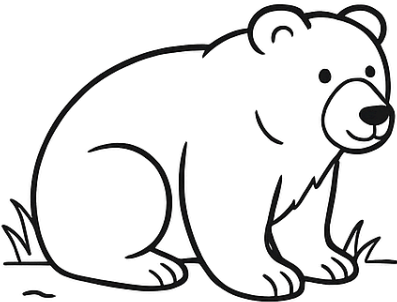
Warm-blooded animals don't freeze –  
but they have clever ways to stay warm!



**Ducks**



**Bears**



**Poorwills**

How do they do it? They don't shut down  
completely – they just power down to save  
energy.

How do you keep warm when it's cold outside?



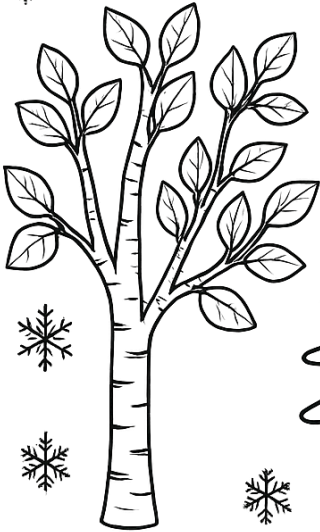


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# HOW TREES KEEP THEIR COOL

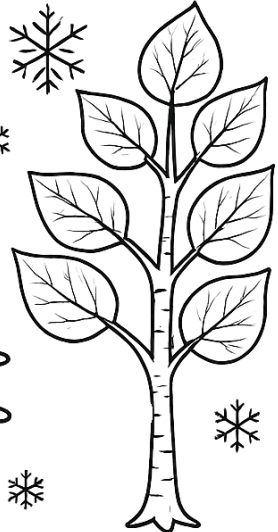
Big trees know how to survive cold, too!



Birch



Spruce



Aspen

**How do they do it?**

They use a trick called supercooling and  
make sugar shields to stay safe in -50°C winter!



**How do YOU slow down in winter?**






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# INSPIRED BY NATURE

Scientists and engineers are learning     
from nature to freeze living things.   

- Organs 
- Organisms
- Human and animal cells
- Plants and seeds



How do they do it?

By studying and experimenting with ways  
to safely freeze and warm living systems. 

What would you do if you could pause life?



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