

# 《整全教育中文》第二版第五册第16课《互利共生》

此课件由大辛辛那提中文学校(GCCS) 郑楠老师制作。  
感谢郑老师分享!

我们也希望群策群力、集思广益，让课件更加完美。

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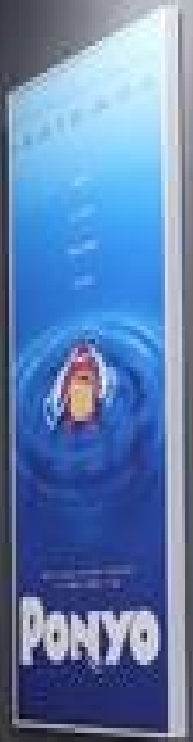
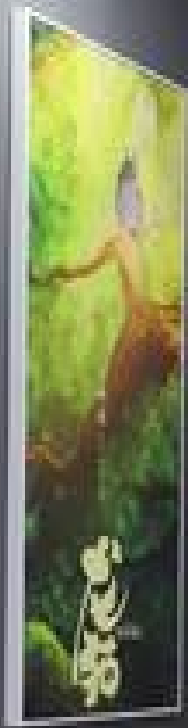
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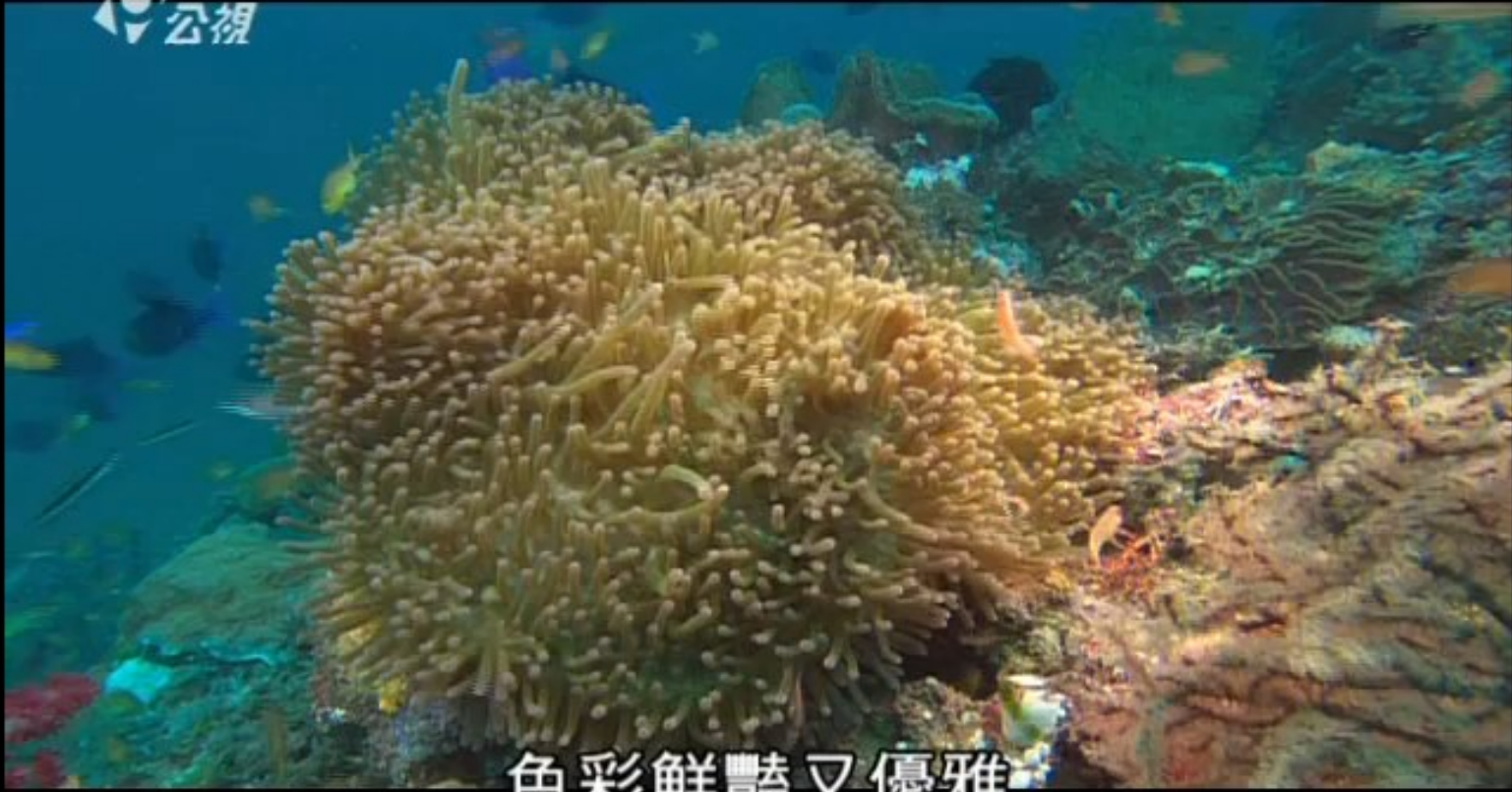
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色彩鮮豔又優雅

<https://www.youtube.com/watch?v=TovCVZVvfxY>

收縮

海葵  
魚

海葵

毒素

成百上千

刺  
細胞

海葵是动物还是植物?



触手

注入

防止

粘液

维生素

清除

天敌



<https://www.youtube.com/watch?v=oGH30xmf8P8>

海葵鱼为什么不怕海葵的刺细胞的触手?





# 【互利共生】 课堂教学视频



<https://www.youtube.com/watch?v=fUH0rR8mM2o>

<https://www.youtube.com/watch?v=2oaqvLBejLw>

# 【互利共生】 课堂教学视频



## 螞蟻與蚜蟲互利共生

螞蟻與蚜蟲是一種很有趣的互利共生組合，  
因為蚜蟲會分泌出蜜露，正好供應螞蟻食物供應，  
螞蟻也會因此保護蚜蟲。

蚂蚁和蚜虫互利共生关系 Ants and aphids

<https://www.youtube.com/watch?v=KBAfjh90XnU>

# 【互利共生】课堂教学视频



Symbiosis: Mutualism | Twig Secondary

[https://youtu.be/kjZyC\\_fry9s](https://youtu.be/kjZyC_fry9s)

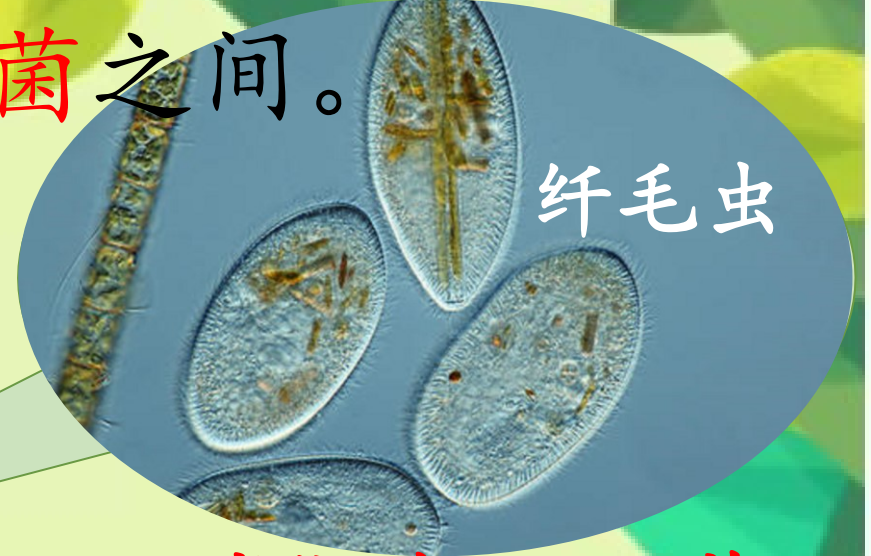




互利共生也存在于动物和细菌之间。

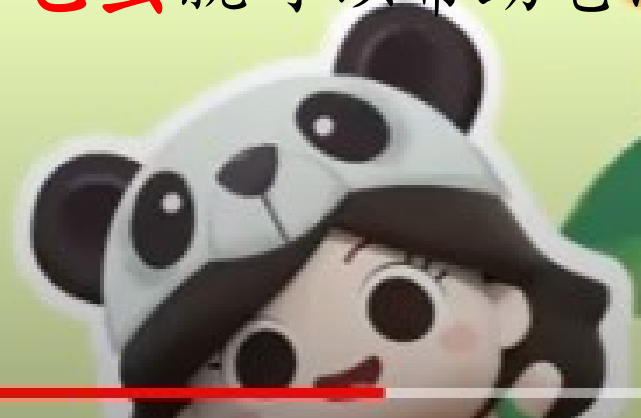


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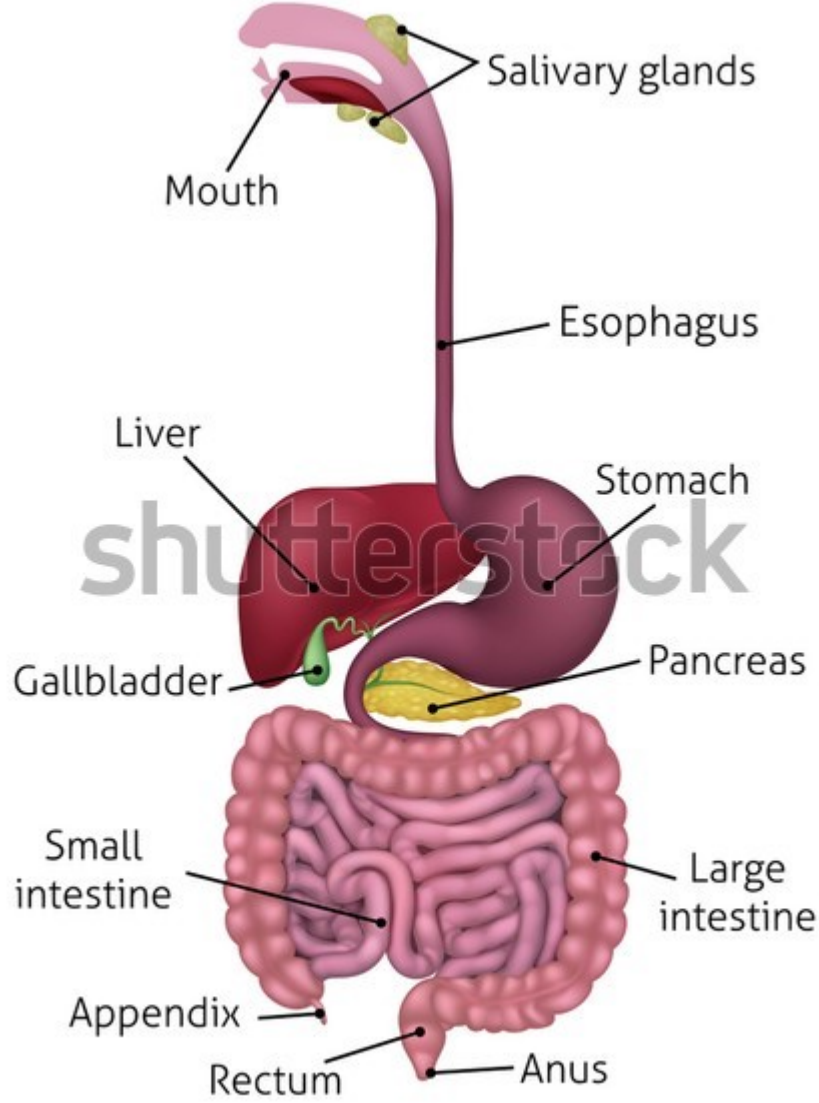
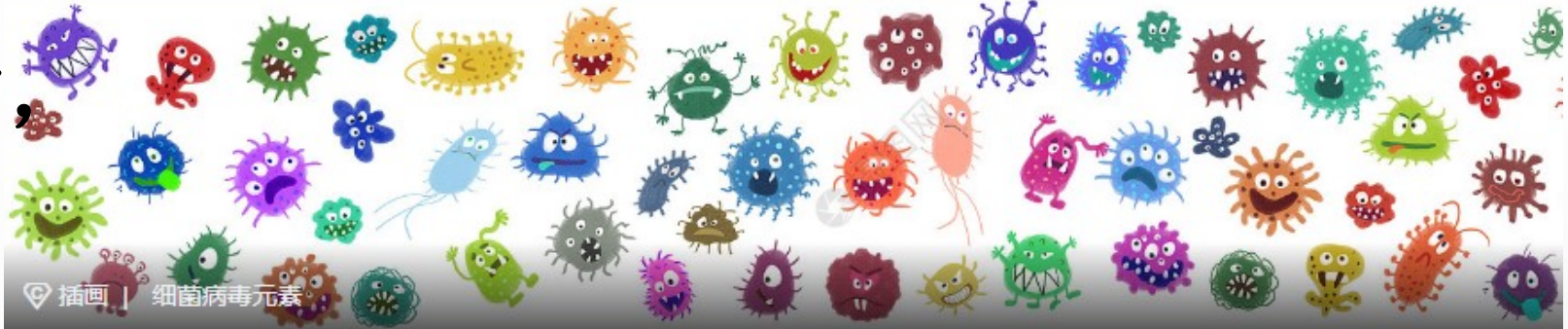
纤毛虫

在熊猫消化道里的细菌—纤毛虫就可以帮助它消化。

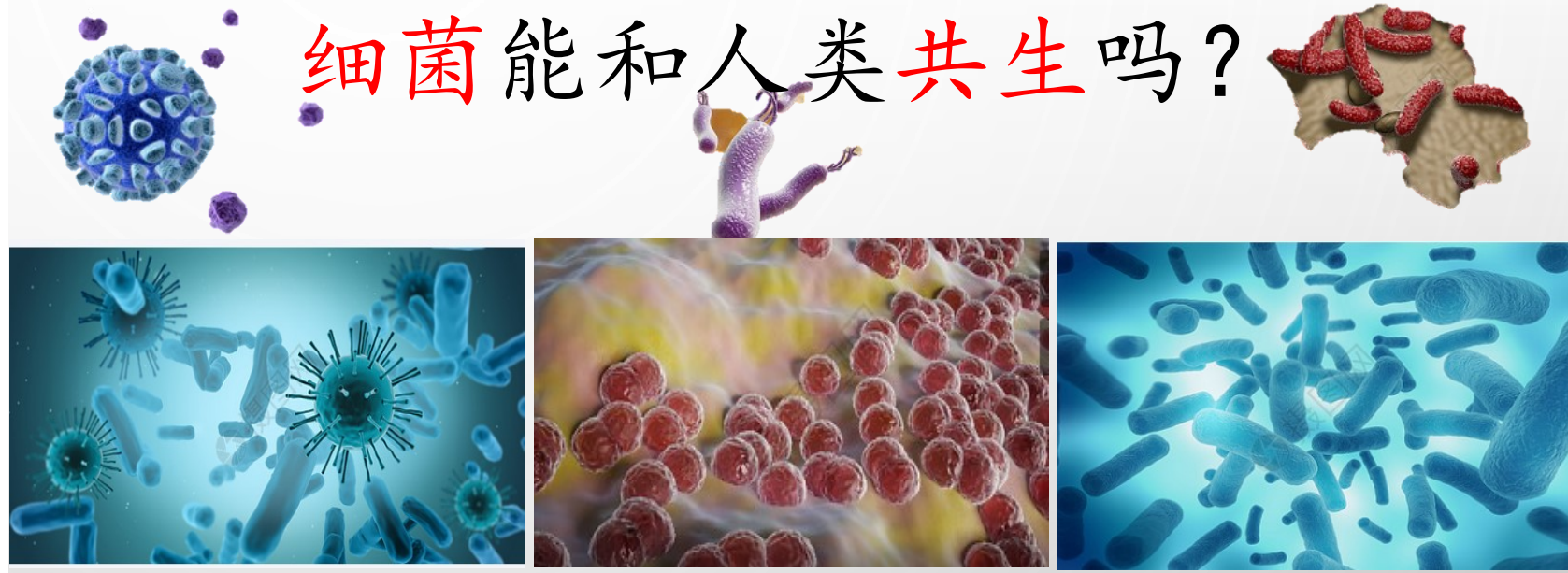




在人的**消化道**里有多少种，  
多少个**细菌**？



**细菌**能和人类**共生**吗？



**细菌**帮助我们消化什么？

**细菌**能产生人体**必需**的什么？

**细菌**从人体内得到什么？

1. 边听边标注  
出句子中断顿、  
换气的地方。

2. 学生分句朗  
读，读完一个  
段落，学生可  
以相互提问和  
回答。

# 第十六课

## 互利共生





# 快速认读游戏

# 快速认读游戏



## 根据课文内容请学生来提问



- 海葵鱼为什么不怕海葵？
- 海葵怎么帮助海葵鱼啊？
- 一个人的消化道里，大概有多少细菌？
- 海葵鱼怎么帮助海葵啊？
- 海葵是植物，还是动物？
- 我们身体里的细菌帮我们做什么？
- 海葵怎么把猎物杀死？
- 互利共生是什么？
- 互利共生只会发生在动物们之间吗？
- 细菌从人体内得到什么？





# 感悟

既然人和细菌之间都要共生，  
人与人之间也需要相互帮助和合作。  
我们需要别人的帮助，同时也不要忘了去帮助别人

学完这篇课文，你有何感悟呢？