## How E. coli Grows


E. coli (Escherichia coli) is a type of bacteria that lives in the digestive tracts of humans and animals. It grows by splitting in half, through a process called binary fission.

| What do you notice? | What questions do you have? |
| :---: | :---: |

## How E. coli Grows (part 2)



Imagine working as a scientist. You are growing E. coli in a petri dish. Every 20 minutes, you take a photograph through a microscope and then count the number of bacteria at that moment.

1) What do you think the next photograph of bacteria would look like? (Draw them.)

## 01:40:00

2) Now, imagine 20 minutes have passed after the picture you drew on the left. How would you figure out how many bacteria there are now?
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3) Complete the table to the right.
4) How many bacteria would there be after 4 hours?
5) How many bacteria would there be after 5 hours?

| Time Passed | Number of Bacteria |
| :---: | :---: |
| $00: 00: 00$ |  |
| $00: 20: 00$ |  |
| $00: 40: 00$ |  |
| $01: 00: 00$ |  |
| $01: 20: 00$ |  |
| $01: 40: 00$ |  |
| $02: 00: 00$ |  |
| $02: 20: 00$ |  |
|  |  |
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