

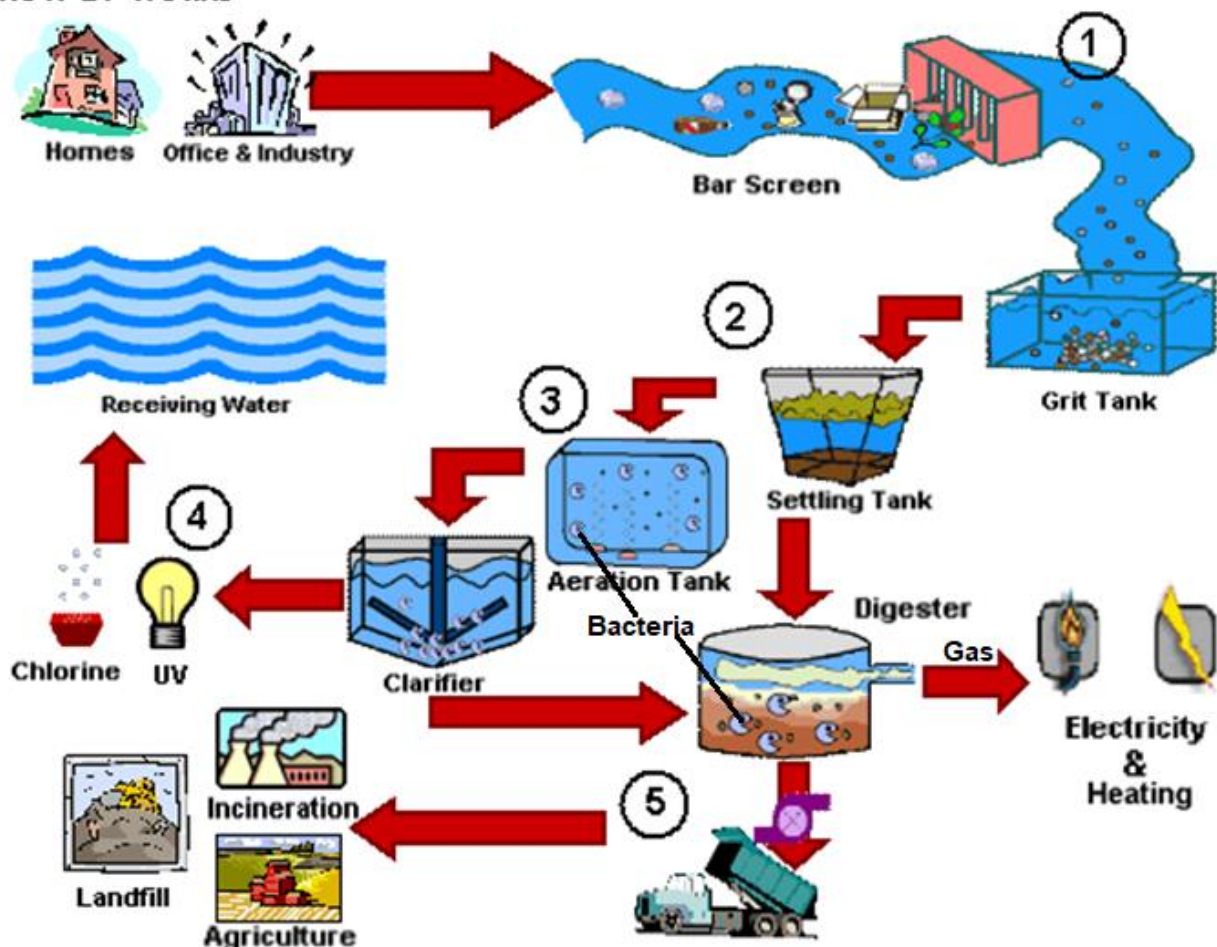
SEWAGE – A Messy Mechanical Mixture

In the middle ages, people did not know that sewage had so many toxins and carried so much disease so they did not treat their sewage. They just threw it into the streets and it ran into the river or lake by the city – where they got their drinking water... Millions of people died until they realized that they had to treat the sewage or poison themselves. Still today, many countries do not have proper sewage treatment and people get sick (and many die).

Today, in developed countries we have safe water because we treat our sewage before we put it into our environment. Below is a picture of the way many cities deal with their sewage. Since sewage is a mechanical mixture, we can separate it and treat it.

For each stage, describe what is done.

HOW IT WORKS



This treatment process uses separation techniques. You should have watched the YouTube video:

<https://www.youtube.com/watch?v=FvPakzgM3h8> . Use it to help you describe what is happening at each stage below.

1 – Bar Screen

2 – Grit tank/settling tank

3 – Aeration Tank

4 – Chlorine or Ultraviolet treatment

5 – Sludge Removal (dredged or skimmed)

Questions

1. What happens in the Aeration tank that gets rid of biological matter?
2. Why is chlorine or ultraviolet light used at the end of the process?
3. What is done with the Sludge? (Three uses)