

# What Path Does Wastewater Follow?

## Focus

Everyday, you produce filth and waste. You clean some of it with the help of water from the sewers. You use tap water that comes from the natural water cycle but that returns to it dirtied. This can also lead to blocking in the sewers. Have you ever considered how wastewater gets into the sewers? Here you can investigate this.

## Materials

- 1 marker or coloured pencil
- Worksheet

## Procedure

- First, read the text completely through one time!
- Read the text a second time and underline the words that you don't know or that you want to learn more about!
- Label the drawing with words from the text (found in bold).
- Draw the path of the wastewater with your colour!
- Answer the questions about the text!

## Background information

### WHAT IS THE DIFFERENCE BETWEEN WASTEWATER AND STORMWATER?

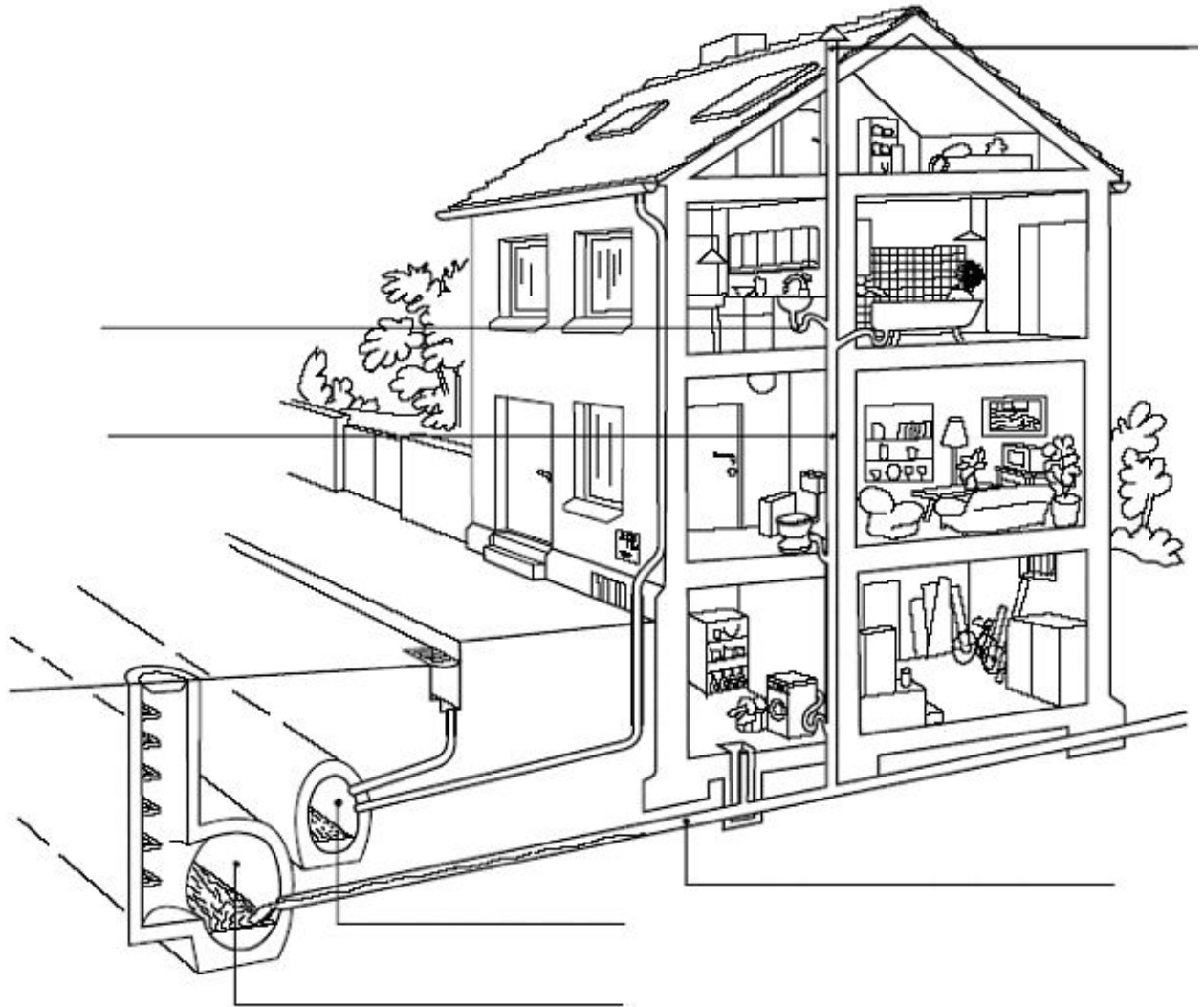
Wastewater is used water from the house and stormwater is **street runoff** (which can include roof runoff). Wastewater in and around buildings must pass through many small pipelines before joining a primary drainage system. Wastewater and stormwater systems have separate drainage systems. The **sewer main of the house** wastewater system ends in a Wastewater Treatment plant. **Stormwater** drains via open canals and drains, eventually being released into the nearest natural body of water.

Every sink in a house has a **sink trap**. It is usually a u-shaped pipe that you can see under every sink. There is always water there. From the trap, water flows through a short pipe into the **drainage pipe**, which goes into the **drainage system**. The drainage **vent pipe** reaches through the house above the roof, where there is an opening for aeration. From the drainage pipe, the water joins a connecting pipeline that flows downward toward the street. The connecting pipelines merge under the street into the **sewer mains**.

## Wastewater Pathways

### Procedure

- Label the drawing with words from the text (found in bold on previous page).
- Draw the path of the wastewater with your felt colour pen.



- Answer the following questions:
  - Q Circle the places in the picture where blockages can occur!
  - Q What is the purpose of the sink trap?
  - Q How do you recognize the path of the sewer mains under the streets?
  - Q Why is a separated system for house and street water better than a mixed system?
  - Q What should you do to prevent blocks in the pipeline system?