

# **DEFECTS IN BUILDINGS DUE TO**

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# DAMPNESS

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**Subject: Building Construction & Technology – III**

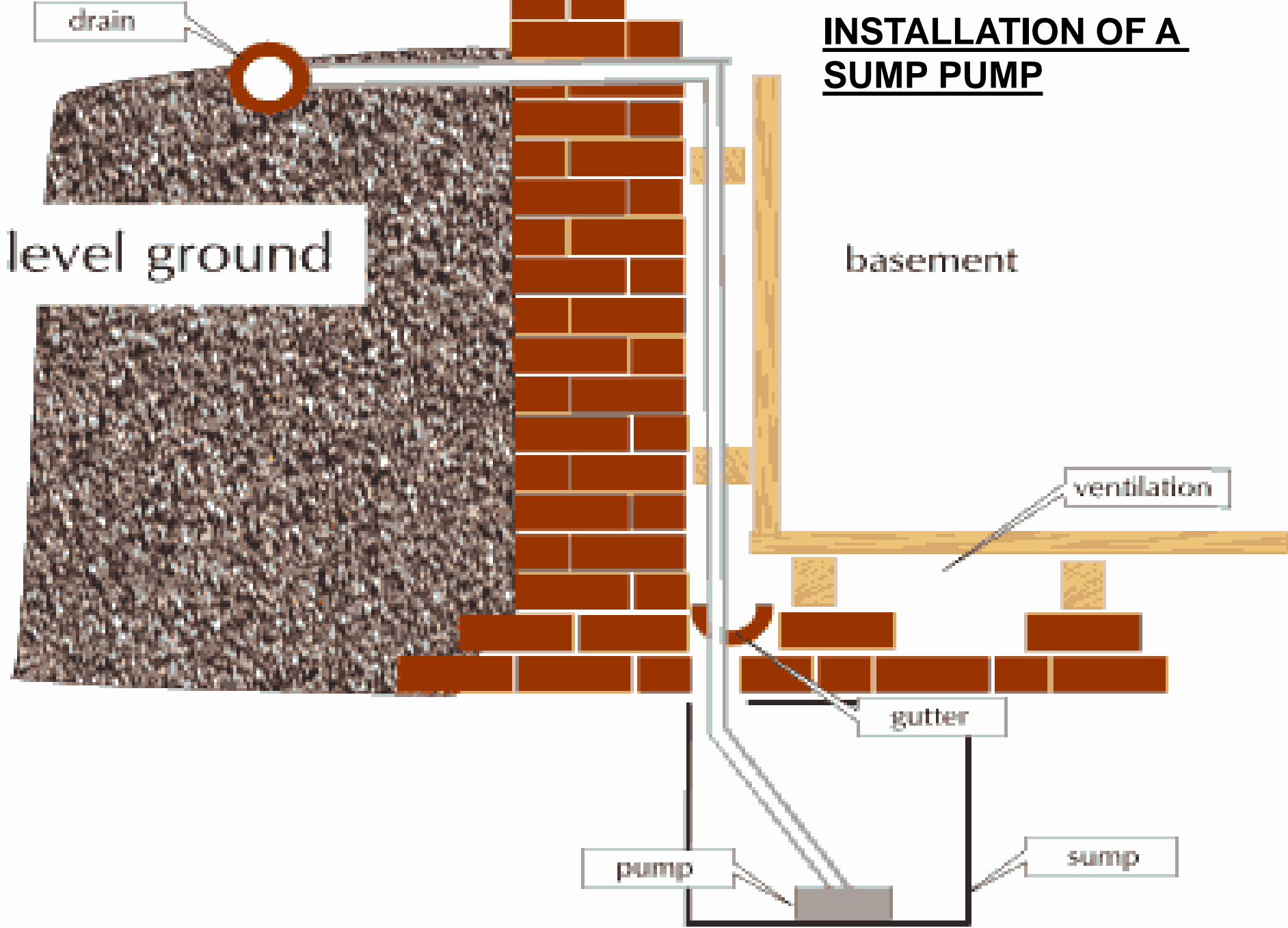
**Topic: Dampness in Basement**

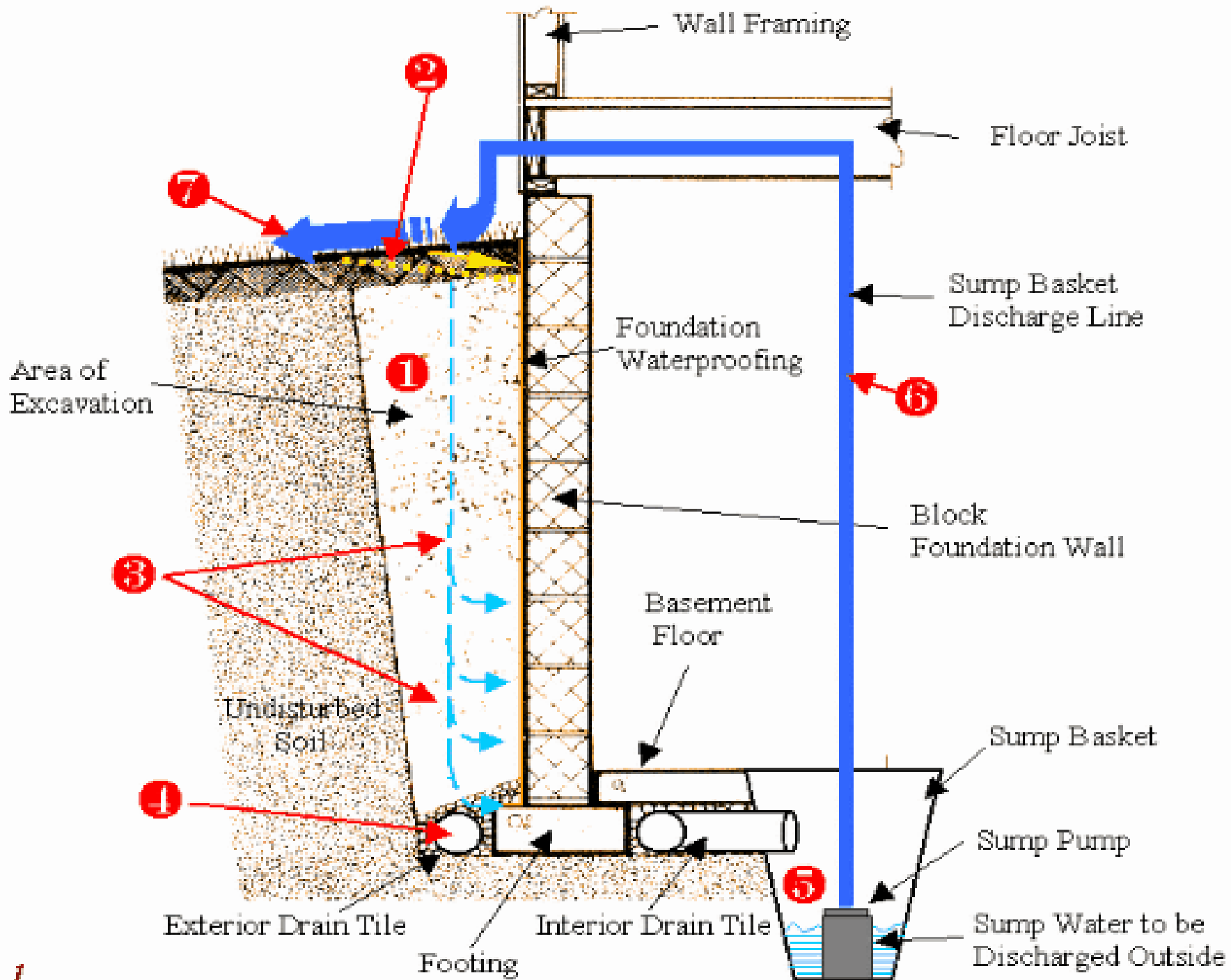
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## REMEDIES

- Clean gutters** and ensure all joints are working properly. Install an extension for the downspout to redirect the runoff away from the foundation. A four-foot extension would be ideal if space allows.
- If you don't already have one, have a **ventilation system installed** in bathrooms to control the amount of moisture in the home created by daily life.
- Purchase a **dehumidifier** to remove excess moisture from the air. If you need continuous dehumidifying, connect the unit's collection reservoir to a floor drain; otherwise it will shut off when the tank is full.
- Insulate surfaces** where condensation is likely to occur, such as cold water pipes and ductwork.
- Seal windows** and any openings on the house exterior where water may come in.
- Install well covers** to prevent flooding of basement windows.
- Check your basement walls and **seal all seams** and **caulk cracks** and holes in the foundation with a polyurethane masonry product. For larger cracks or gaps use hydraulic cement.
- If the ground near your foundation slopes toward the house you may need to **grade the slope** away from it to move as much water as possible away from the foundation. Grade the slope at least one inch vertically for every one foot of horizontal for at least four feet.
- Install a sump pump**. If you've tried everything else and still have water coming in ~~a sump pump will at least ensure it gets out of the house quickly and efficiently.~~ This is a fairly technical job that involves digging a hole or trench in the basement floor to drain the water. It's a project best left to the professionals.

# INSTALLATION OF A SUMP PUMP





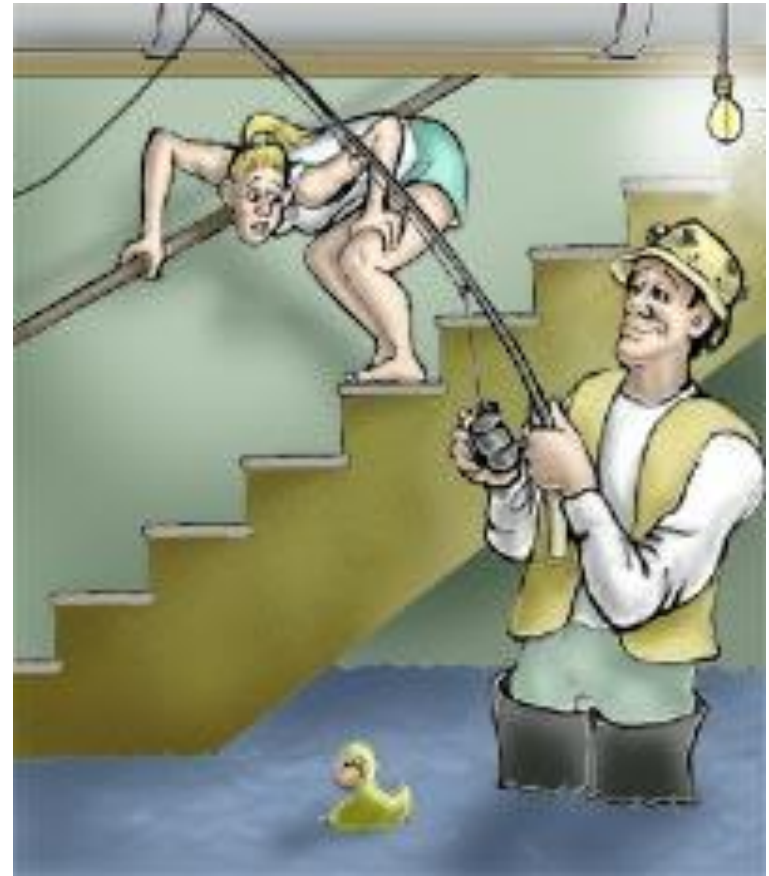
*Figure 1*



**PICTURE SHOWING BLISTERED AND DAMAGED WALLS OF A BASEMENT**

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# DAMPNESS IN WALLS AT VARIOUS LEVELS



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# How dampness enters into walls?

- Dampness penetration through walls can be a serious matter, particularly to buildings **located near water sources**.
  - Not only does it deteriorate building structures but also damages to furnishings.
  - The main cause of dampness is water entering a building through different routes.
  - Water penetration occurs commonly through **walls exposed** to prevailing wet wind or rain.
  - With the existence of gravity, water may penetrate through **capillaries or cracks** between mortar joints, and bricks or blocks before building up trap moisture behind hard renders.
  - Water may also drive further up the wall to emerge at a higher level.
  - Dampness also occurs in walls due to other factors such as **leaking gutters or down pipes**, defective drains, burst plumbing and condensation due to inadequate ventilation.
  - Dampness may also enter a building from the ground through cracks or mortar joints in the foundation walls.
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## Sources of damp in walls

