



Flooding can damage homes and other structures. It can also be dangerous for people. Scientists and engineers gather information about conditions that can cause floods. They also work to find ways to prevent floods or minimize the damage caused by floods.

Flood Facts

- **Surface water flooding** is when the ground is saturated from heavy rain, melting snow or other conditions to a point where it cannot absorb the water quick enough. This often happens if rivers, streams or man-made drainage systems cannot cope with the amount of water flowing through them.
- **Groundwater flooding** occurs after long periods of heavy rain, melting snow or other conditions. As it cannot escape the ground in its normal way, the natural underground water level rises. This is more unpredictable to track and prevent.
- Surface water flooding and groundwater flooding can happen separately or together.
- Groundwater levels are usually highest in the spring of each year.
- In the UK, the winter of 2013-2014 was one of the wettest recorded winters in history.
- The wet winter weather has resulted in very high groundwater levels, which lead to flooding.

Technology and Flooding Solutions

- Technology is used to keep track of conditions that can lead to flooding.
 - **Boreholes**, which are human-made holes in the ground, allow groundwater levels to be measured and monitored.
 - Flood maps are made using the latest data and can be used to find out about flood risk.
- Technology can also be used to help keep floodwaters from causing damage.
 - Homes and other buildings can have a waterproof **membrane**, or coating applied to keep floodwaters from flowing into their basements.
 - Portable, temporary barriers can be used to keep floodwaters from entering an area or structure.
- Some technologies are used to prevent floods.
 - Screens can be used to keep rivers and streams free of debris. This helps the water keep flowing and prevents flooding caused by water backing up and overflowing the banks.
 - River banks can be reinforced with different materials to help prevent water from wearing away the banks and spilling over.
- Some technologies are used to keep people safe when flooding does occur.
 - Communication technologies can be used to issue flood warnings, helping people stay safe.

