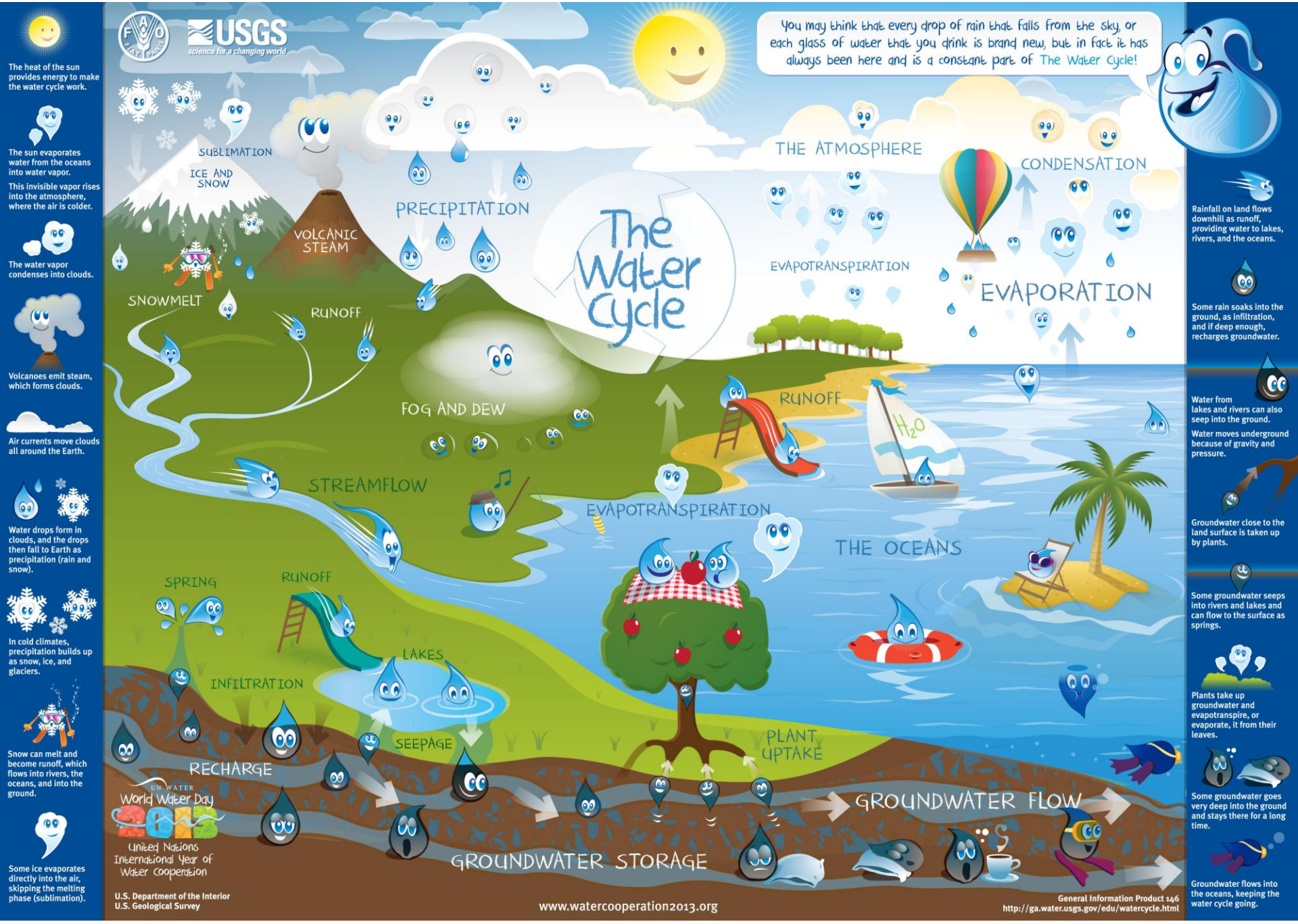
USGS
science for a changing world
You may think that every drop of rain that falls from the sky, or each glass of water that you drink is brand new, but in fact it has always been here and is a constant part of The Water Cycle!
The Water Cycle
The heat of the sun provides energy to make the water cycle work.
The sun evaporates water from the oceans into water vapor.
This invisible vapor rises into the atmosphere, where the air is colder.
The water vapor condenses into clouds.
Volcanoes emit steam, which forms clouds.
Air currents move clouds all around the Earth.
Water drops form in clouds, and the drops then fall to Earth as precipitation (rain and snow).
In cold climates, precipitation builds up as snow, ice, and glaciers.
Snow can melt and become runoff, which flows into rivers, the oceans, and into the ground.
Some ice evaporates directly into the air, skipping the melting phase (sublimation).
SUBLIMATION
ICE AND SNOW
VOLCANIC STEAM
PRECIPITATION
SNOWMELT
RUNOFF
FOG AND DEW
STREAMFLOW
SPRING
RUNOFF
LAKES
INFILTRATION
SEEPAGE
RECHARGE
GROUNDWATER STORAGE
GROUNDWATER FLOW
PLANT UPTAKE
THE ATMOSPHERE
CONDENSATION
EVAPOTRANSPIRATION
EVAPORATION
RUNOFF
EVAPOTRANSPIRATION
THE OCEANS
H2O
Rainfall on land flows downhill as runoff, providing water to lakes, rivers, and the oceans.
Some rain soaks into the ground, as infiltration, and if deep enough, recharges groundwater.
Water from lakes and rivers can also seep into the ground.
Water moves underground because of gravity and pressure.
Groundwater close to the land surface is taken up by plants.
Some groundwater seeps into rivers and lakes and can flow to the surface as springs.
Plants take up groundwater and evapotranspire, or evaporate, it from their leaves.
Some groundwater goes very deep into the ground and stays there for a long time.
Groundwater flows into the oceans, keeping the water cycle going.
UN WATER
World Water Day
United Nations International Year of Water Cooperation
U.S. Department of the Interior
U.S. Geological Survey
www.watercooperation2013.org
General Information Product 146
http://ga.water.usgs.gov/edu/watercycle.html