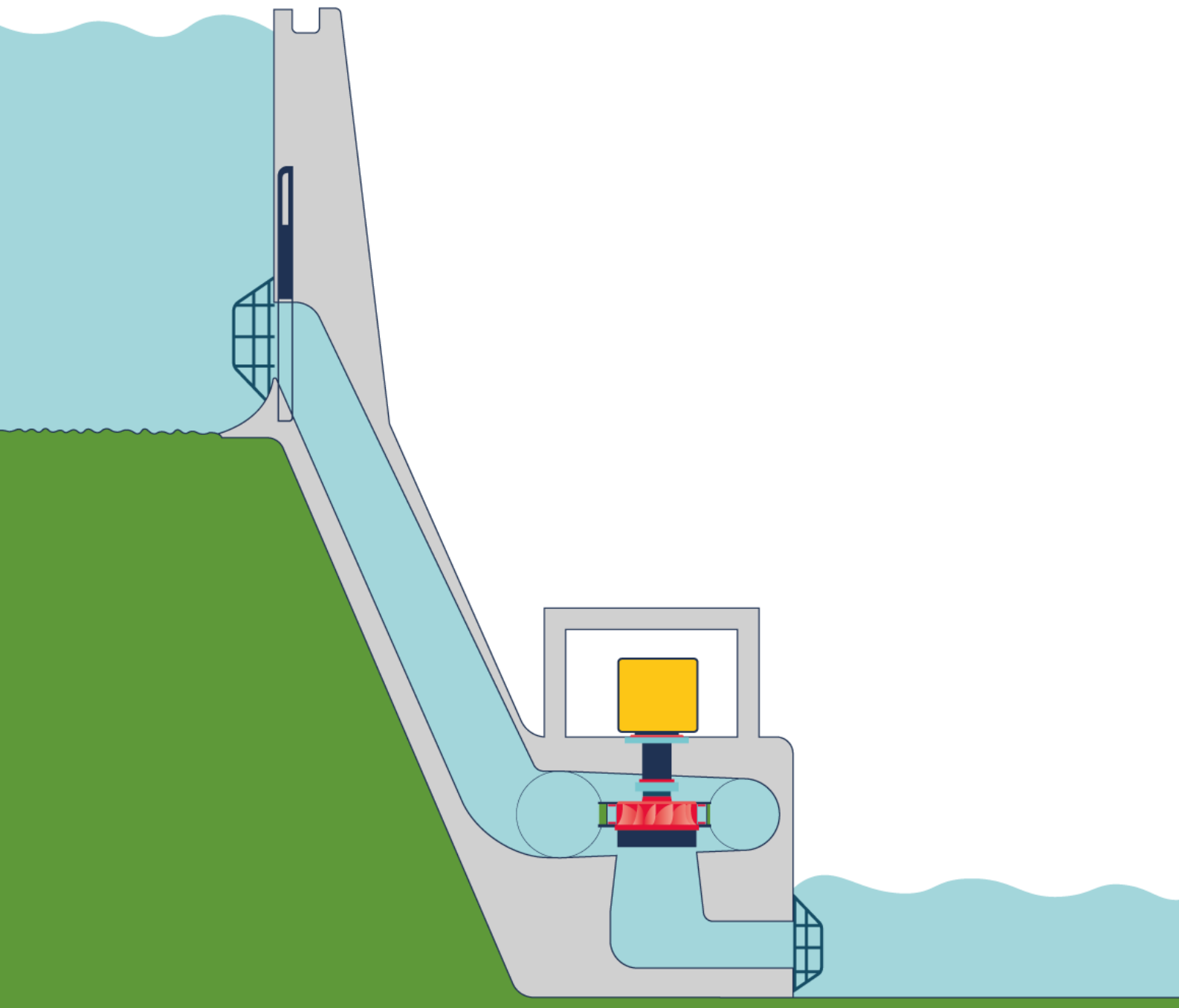


Investigating Renewable Energy

How do we generate electricity from water?

The diagram below shows an example of hydroelectric power station which allows us to generate electricity from water. Use the description labels and arrows on the next page to show what happens at the different parts of the system.



River

Water trapped behind a dam builds up into a body of water called a reservoir. The bigger the reservoir and the higher up it is from the turbine, the more energy it holds.

A gate releases the water from the reservoir and the force of gravity pulls the water towards the turbine at tremendous speed and pressure.

Generator

Dam

The water is guided onto the curved blades of the turbine, causing them to spin. A shaft carries the rotation up to the generator above.

The water exits into a river. A mesh screen stops fish from swimming into the blades of the turbine.

Penstock

Turbine

The generator converts the spinning motion of the turbine into electricity.

Dams need to be particularly strong to cope with the colossal force of the water.

Reservoir

