

JAG03 Unit 3 Water

Task 1 Do you understand the idioms below?

1. I can't seem to get my head above water. Work just keeps piling up.
2. Bill got in deep water in algebra class. The class is too difficult for him, and he's almost failing.
3. Things were going along quite smoothly until you came along and muddied the water.
4. George and I were friends once, but that's all water under the bridge now.
5. You can lead a horse to water, but you can't make it drink.
6. You can't close the airport because one airline has problems - that's just throwing out the baby with the bath water.
7. I think you would enjoy working here, and I'm happy to offer you the job. Come on in, the water's fine.
8. Our manager thinks the best way to introduce new staff to the job is to throw them in at the deep end and see how they go.

Task 2 Speaking

Imagine you are going to a lecture given by a famous hydrogeologist. What current issues do you think she is going to cover? What questions would you ask her?

Task 3 Questions

Ask about the missing part of the sentence:

1. Hydrogeology is the study of groundwater – people often refer to it ?
..... ?
2. Hydrogeology deals with ?
..... ?
3. Hydrogeologists apply their knowledge ?
..... ?
4. Hydrogeologists are involved in ?
..... ?
5. Hydrogeologists work closely with ?
..... ?

Now match the questions from above with their answers:

- a) to many practical uses.
- b) as geohydrology or groundwater hydrology.
- c) a wide range of people from farmers to scientists to policy makers.
- d) attempting to solve some of the big questions facing the world today.
- e) how water gets into the ground (recharge), how it flows in the subsurface (through aquifers) and how groundwater interacts with the surrounding soil and rock.

Task 4 Hydrogeologist's job

Complete the gaps with one of the words below.

clean construct depleting dewatering harness investigate sustain

Hydrogeologists might:

- design and (1) water wells for drinking water supply, irrigation schemes and other purposes;
- try to discover how much water is available to (2) water supplies so that these do not adversely affect the environment – for example, by (3) natural baseflows to rivers and important wetland ecosystems;
- (4) the quality of the water to ensure that it is fit for its intended use;
- where the groundwater is polluted, they design schemes to try and (5) up this pollution;
- design (6) schemes and deal with groundwater problems associated with mining;
- help to (7) geothermal energy through groundwater-based heat pumps.

(adapted from <https://iah.org/education/general-public/what-is-hydrogeology>)

Task 5 Video – 4 ways we can avoid a catastrophic drought

(https://www.ted.com/talks/david_sedlak_4_ways_we_can_avoid_a_catastrophic_drought?referrer=playlist-talks_on_water)

Study the vocabulary below. What solutions to drought do you think the speaker will present?

drought reservoir dam rural faucet water-starved sewer
resource rainwater harvesting water demand water treatment wetland aquifer

Watch the speech. Take notes:

- **what strategies were used in the past to deal with water shortage?**
- **what are the 4 suggested ways to deal with the problem?**

How does the speaker conclude his talk?

Task 6 Grammar - Conditionals

Look at sentences *a, b, and c* from the video. In which one does the speaker:

- make a prediction about the future?
 - form a theory about the present?
 - form a theory about the past?
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- a) If we make smart investments, we will be able to solve the problem.
 - b) If you had told me the idea 20 years ago, I would have dismissed you as an unrealistic and uninformed dreamer.
 - c) San Jose would have enough water to get them through an entire year if they captured stormwater.

Complete the sentences:

Zero conditional: It is better for research if/ when ...

First conditional: It will be better for my research if ...

Second conditional: It would be better for my research if...

Third conditional: It would have been better for my research if...

Complete the sentences with the correct form of the verb in brackets:

1. You will always get a good return on your money if you (invest) in research and development.
2. If we incinerated plastics on a large scale, what waste products (we produce)?
3. If diamonds (not discover) in South Africa, the history of that region would have followed a less dramatic and probably more peaceful path.
4. If it (not be) for the new computerised marking system, the college could never have processed the results in time.
5. The local authorities will begin to evacuate all building south of the river unless the floodwater (fall) in the next half hour.
6. There will be further outbreaks of fire in southern Greece if the temperatures (rise) again.
7. When a small asteroid (hit) the Earth's atmosphere, it burns up immediately.
8. Archaeologists might make important new discoveries if they (be allowed) long-term access to building sites in key areas of major cities. Instead, valuable discoveries are lost as bulldozers tear up the earth.

(adapted from Paterson, K. *Oxford Grammar for EAP*. OUP, 2013.)