Read the short story. Then answer each question.

A Magical Search for Water

When Olivia gets thirsty, she turns on the tap for a drink of water. When her Dad wants to wash the dishes, he fills the sink with water from the faucet. When Olivia's mom turns on a tap outside, the garden hose brings water t the flowers.

However, there were no lakes or rivers nearby. Olivia wondered, "Where does all the water come from?"

"Our water comes from underground", her mom explained. "If we lived in town, the water would

come from a water tower or reservoir. Pipes laid under the streets would deliver it to us and our neighbors. Since we live in the country, our water comes from a well in our yard. The well is drilled three hundred feet down into an underground stream which fills the well with water."

"How does someone know where to drill to find water?" Olivia wondered.

Olivia's mom introduced her to an elderly neighbor named George. George knew a lot about water. He spent most of his life drilling wells to find it.

George invited Olivia to sit down beside him on his front steps. He told her about how he searches for water using a process called dowsing. He said dowsing was an old custom for finding water that still works today. A long time ago, people thought dowsing was some kind of magic, so they started to call it witching.



"It has nothing to do with magic," George explained. "Most dowsers believe it has something to do with static electricity. The energy of the moving water reacts with the static in the dowser's body. It is not a reaction that science can easily measure or record."

George described how he uses a Y-shaped branch he calls a gad. He grasps one upper branch of the Y firmly in each hand. George points the bottom of the Y out in front of him. When George walks over a stream of underground water, he can feel the branch move up or down.

"Do all dowsers use a wooden gad to look for water?" Olivia asked.

"No, dowsers use lots of different tools to search for water," George said. "They sometimes use a length of metal, like a crowbar. Other dowsers use a gold watch hanging from a chain. For many dowsers two L-shaped wire rods, about the size around of small knitting needles does the job. The dowser holds one wire by the bottom of the L, lightly in each hand. The wire rods cross and uncross in front of the dowser when they walk over an underground stream."

"So, the wire or branch shows you where to put the well?"

"It's not quite that simple," George said. "A dowser needs to know about the land, different types of rock and how water flows underground. And dowsing doesn't work for everyone, and not everyone believes it works at all."

"Why not?," asked Olivia. "Can't they see when your stick moves?

Do they think you're trying to trick them?"



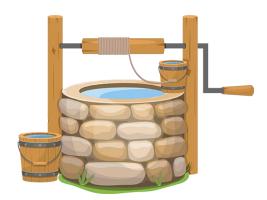
"Some people think I'm trying to fool them, while others think I'm fooling myself. There are people who think the movement is some kind of reflex. They believe the dowser causes the movement without knowing it. They think if science cannot measure it or explain it, then it is not real."

George opened his hand to show Olivia his calloused palm. "My hands tell me it works. When a branch has been cut for a while, it dries out and the bark gets hard. If the pull of the water is strong, the gad turns in my hands hard enough for the bark to leave scratches. That would not happen if I was moving the gad. When a branch is fresh and green, the bark will sometimes pull off in my hand when the gad turns. Do you understand?"

Olivia was skeptical. She had just completed grade 4, and none of this sounded very scientific. Shouldn't they be using X-rays or sound waves or Google or something to find water? She couldn't tell if George was completely serious or not. Still, she liked George, who was smiling at her.

"Could you teach me dowsing?" Olivia finally asked.

Standing up, George reached for her hand and chuckled. "Sure, let's go see if we can find ourselves some water!"





Questions:

1. Circle all the materials in the list that a dowser might use as a tool to search for water.

length of metal bucket

compass watch

wire rods binoculars

magnet Y-shaped branch

2. Multiple Choice

Where do most people who live in the country get their water?

- a. water towers
- b. reservoirs
- c. wells

What does a dowser <u>not</u> need to know about?

- a. Different types of rock.
- b. Magic.
- c. How water flows underground.

What do many dowsers believe the energy in the moving water reacts with?

- a. The material in the dowser's shoes.
- b. What the dowser ate for lunch.
- c. The static electricity in the dowser's body.

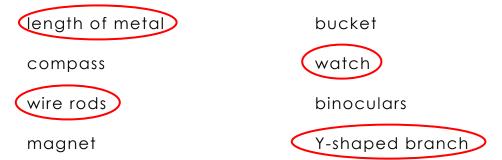


If the branch is dry and the pull of water is strong what could happen?

	a.	The bark could leave scratches on the dowser's hands.
	b.	The bark will pull off the branch in the dowser's hands.
	c.	The branch will break.
3.	Make a list of 6 things we need water for.	
	a.	
	b.	
	c.	·
	d.	
	e.	
	f.	
4.	Do you think dowsing for water really works? Explain why or why not.	

Answers:

1. Circle all the materials in the list that a dowser might use as a tool to search for water.



2. Multiple Choice

Where do most people who live in the country get their water?

c. wells

What does a dowser not need to know about?

b. Magic.

What do many dowsers believe the energy in the moving water reacts with?

c. The static electricity in the dowser's body.

If the branch is dry and the pull of water is strong what could happen?

- a. The bark could leave scratches on the dowser's hands.
- 3. Make a list of 6 things we need water for.

Answers will vary.

4. Do you think dowsing for water really works? Explain why or why not.

Answers will vary.