**Observations and Inferences**

1. Classify the observations as quantitative or qualitative, by putting them in the correct column in the table.

* The tree has green leaves
* The water is hot
* The tree is 12 m tall
* The water is 75°C
* There are 3 flowers on the plant
* The flowers on the plant are yellow
* The rock sample contained 25g of quartz
* The rock sample is red, brown and white

|  |  |
| --- | --- |
| **Quantitative** | **Qualitative** |
| **The tree is 12m tall** | **The tree has green leaves** |
| **The water is 75°C** | **The water is hot** |
| **There are 3 flowers on the plant** | **The flowers on the plant are yellow** |
| **The rock sample contained 25g of quartz** | **The rock sample is red, brown and white** |

1. Look at the picture of the penguins. Classify each statement as an observation or an inference.

**O** There are two penguins

**I** There are more penguins under the water

**O** The penguins have black and white feathers

**O** The penguins are jumping out of the water

**I** The penguin’s feathers are waterproof

**I** The penguins are being chased by a predator

**I**  The penguins live in a cold climate

**O**  The penguin’s habitat is water, ice and snow

1. Read the situations carefully and underline the observation in red and the inference in blue.
   1. There are many puddles on the ground, so it must have rained.
   2. The people down the street must be having a barbecue because the air smells like smoke and cooking meat.
   3. There is a baseball in my driveway and my car windshield is broken. Someone playing ball must have shattered my windshield
2. Read the following observations, then make an inference that explains each observation. There may be more than one inference for an observation.

Observation 1: You observe that the sky is getting dark at noon.

Inference: **Clouds have moved in front of the sun.**

Observation 2: There are a lot of people at the swimming pool.

Inference: **The people were hot and wanted to cool down.**

Observation 3: A child is crying after they fell over.

Inference: **The child has hurt themselves.**

Observation 4: A former rock band member has poor hearing.

Inference: **Loud music has damaged his ear.**

Observation 5: You leave the cinema and see that the street is wet.

Inference: **It has been raining.**

Observation 6: During a handshake, you notice the person’s hand has blisters.

Inference: **The person has been working with their hands a lot.**

Observation 7: The house lights are off.

Inference: **Nobody is home.**

Observation 8: A siren is heard going past the school.

Inference: **An ambulance is going to help someone.**

Observation 9: The cat climbed up the tree.

Inference: **The cat was chasing a bird.**

Observation 10: A flock of ducks flew off a lake.

Inference: **They were escaping from a dog.**