Unit 7

Measurement 4

Frequency, Tendency, Probability

JEM/ENG
Mesleki Yabancı Dil

(Professional English)

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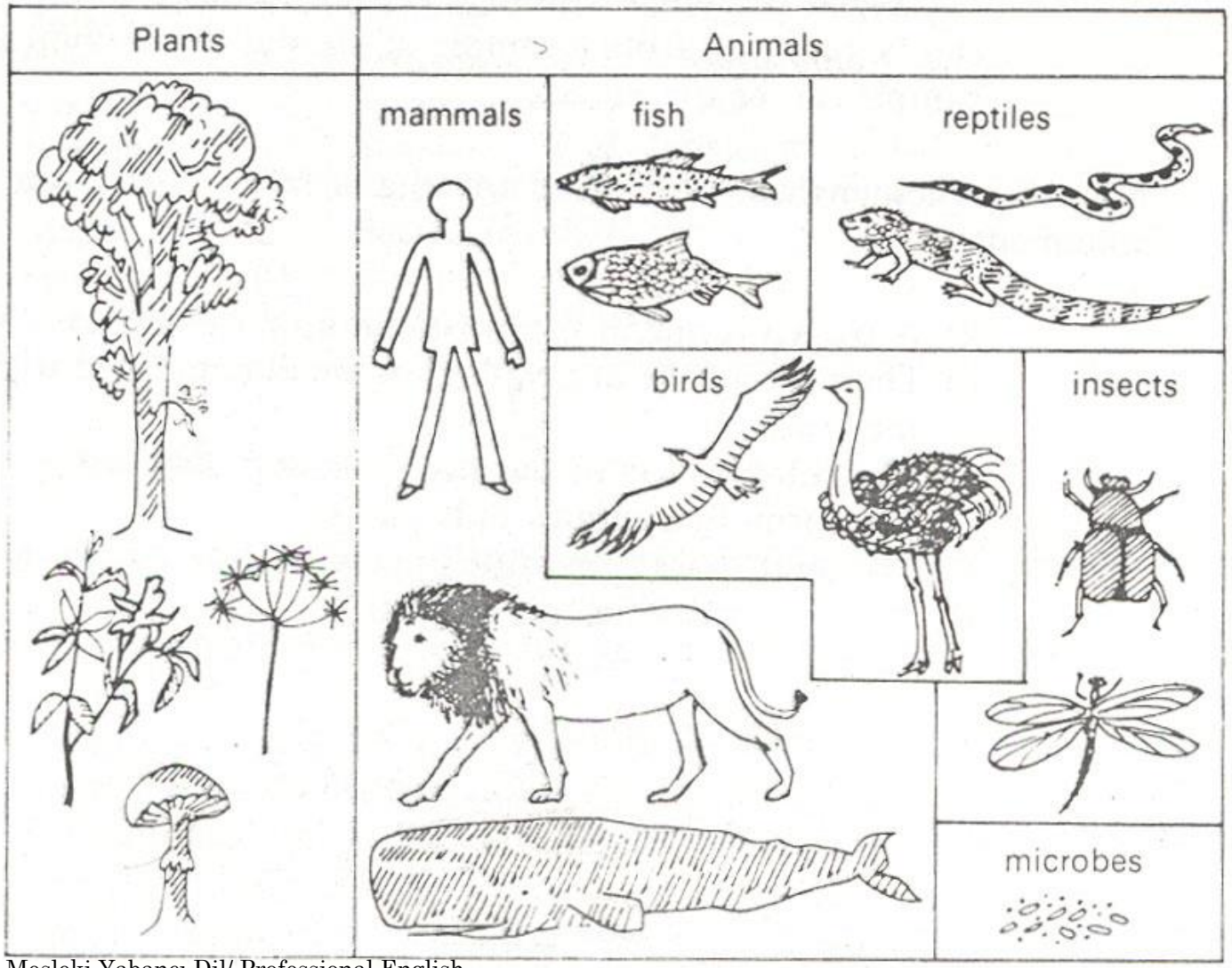
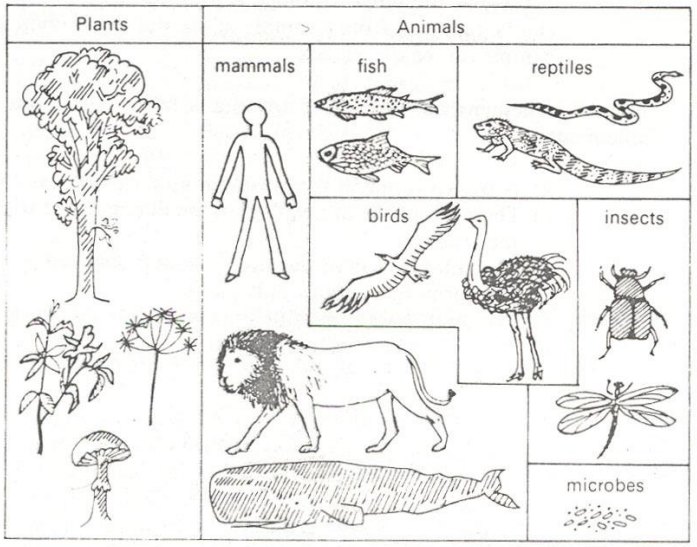
TAG

Frequency

Look at these diagrams



Frequency



Change the statements on the left, which you say how many members of a particular class possess a certain property, into statements of *frequency*, which say *how often* the property occurs:

Example:

All living things consist of cells. (*always*)
Living things *always* consist of cells

(a) Most plants are green. (*usually*)
(b) Many birds live in trees. (*often/frequently*)
(c) Some mammals live in water. (*sometimes*)
(d) A few plants flower at night. (*occasionally*)
(e) Few fish leave the water. (*rarely*)
(f) No living things are two-dimensional. (*never*)

Look at this table:

occurrence	gold	tin	lead	diamond
in sedimentary rocks	•	•	• • •	•
in metamorphic rocks	• • •		•	
in igneous rocks	⋮⋮⋮	⋮⋮⋮	⋮⋮⋮	⋮⋮⋮
as an ore	⋮⋮⋮	▦▦▦	⋮⋮⋮	
naturally occurring	•		•	▦▦▦

▦ *invariably always* occurs there, therefore *certain* to be found there

⋮⋮⋮ *usually often* occurs there, therefore *likely* to be found there *probably*

⋮ ⋮ ⋮ *sometimes* occurs there, therefore *possibly* found there

• *occasionally*

never

Ask and answer questions from this table:

Example:

Where does tin often occur?

Tin *often* occurs in igneous rocks.

Look at this table:

occurrence	gold	tin	lead	diamond
in sedimentary rocks	•	•	⋮	•
in metamorphic rocks	⋮		•	
in igneous rocks	⋮	⋮	⋮	⋮
as an ore	⋮	▦	⋮	
naturally occurring	•		•	▦

▦ *invariably always* occurs there, therefore *certain* to be found there

⋮ *usually often* occurs there, therefore *likely* to be found there *probably*

⋮ *sometimes* occurs there, therefore *possibly* found there

• *occasionally*

never

Ask and answer questions from this table:

Example:

Where does tin often occur?

Thin *often* occurs in igneous rocks.

Gold Tin Lead Diamond	invariably always often usually sometimes occasionally never	occurs	in sedimentary rocks. in metamorphic rocks. in igneous rocks as an ore. naturally.

Look at this table:

occurrence	gold	tin	lead	diamond
in sedimentary rocks	•	•	⋮	•
in metamorphic rocks	⋮		•	
in igneous rocks	⋮	⋮	⋮	⋮
as an ore	⋮	▦	⋮	
naturally occurring	•		•	▦

▦ *invariably always* occurs there, therefore *certain* to be found there

⋮ *usually often* occurs there, therefore *likely* to be found there *probably*

⋮ *sometimes* occurs there, therefore *possibly* found there

• *occasionally*

never

Answer these questions orally:

(a) Which minerals are occasionally found in sedimentary rocks?
(b) Which mineral always occurs as the ore?
(c) Which minerals occasionally occur naturally?
(d) Which type of rock is most likely to yield minerals?
(e) Is it possible for gold to be found in sedimentary rocks?
(f) Is it possible for diamond to occur as an ore?
(g) What is the most probable type of rock in which to find lead?
(h) What is its more probable state when it is found?

Tendency

Generalizations which have exceptions express a *tendency*. These statements mean the same:

Most people live in houses.

People *generally* live in houses.

People *tend to* live in houses.

Now make statements about the Earth sciences. Add the verb *tend to* those which express tendency. Add *always* to those which are absolutely true. Add *sometimes, rarely, never* etc. to the others.

Predicting Probability

	Scale
If something occurs, then it will *certainly* occur	100%
If something *nearly always* occurs, then it will *almost certainly* occur	.
usually = will probably	.
often = may well	.
sometimes = may/will possibly	50%
occasionally = might	.
rarely = probably will not	.
seldom = probably will not	0%

The statements about frequency are based on *observation*. From them we can make *predictions* about the likelihood of something happening. **Thus, we know from observation that *rooms always have walls*. Therefore, we can predict that the next room we see *will certainly* have walls.**