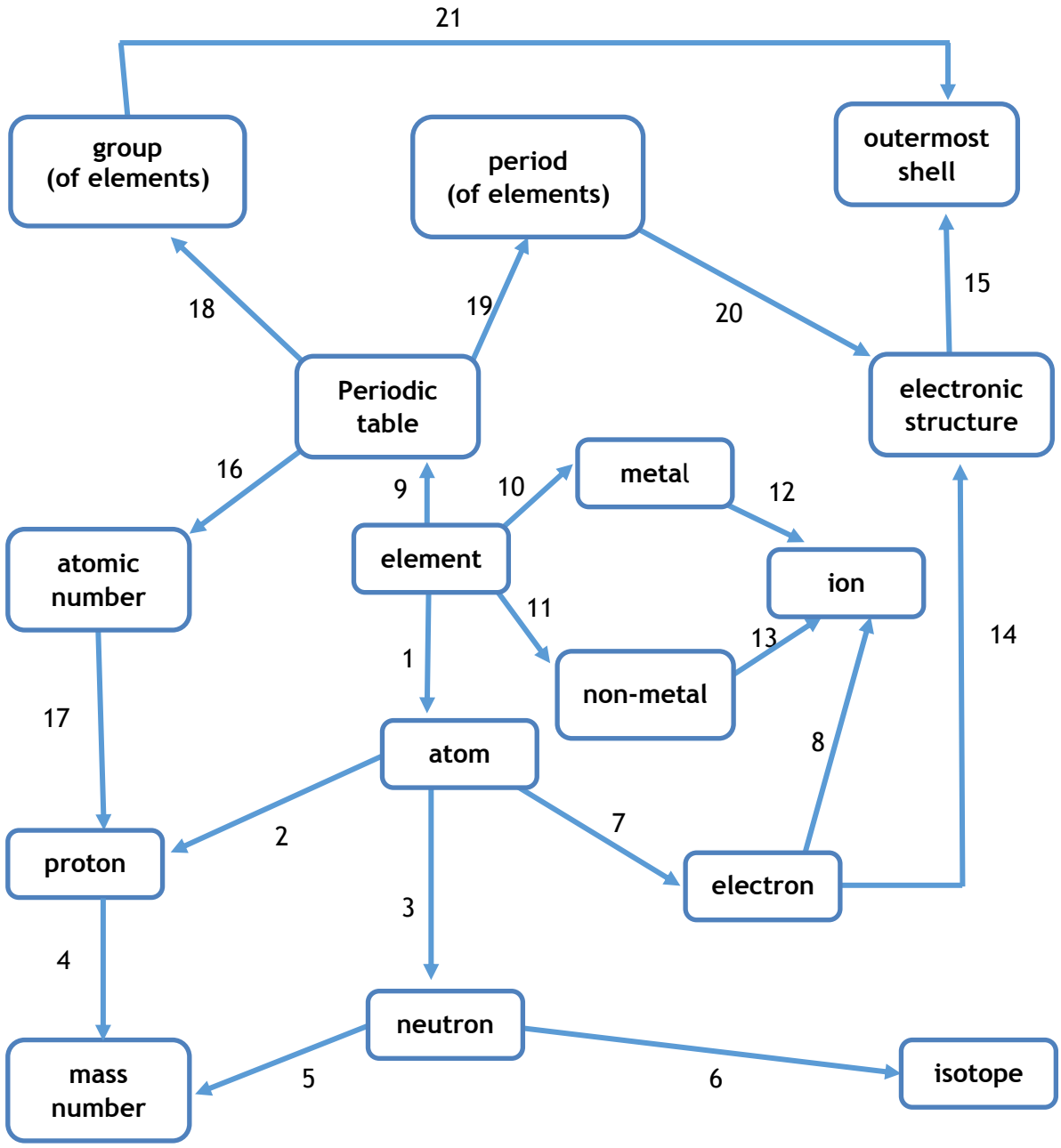
Task

Look at the diagram below. It links important key terms. Complete the table to show how the chemical terms are related in the concept map. The first two chemical terms are completed to show you what to do.



	Relationship between chemical concepts
1	An ***atom*** is the smallest particle of an ***element***.
2	A ***proton*** is a positive particle found in the nucleus of an ***atom***.
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Suggested answers

	Relationship between chemical concepts
1	An **atom** is the smallest particle of an **element**.
2	A **proton** is a positive particle found in the nucleus of an **atom**.
3	A **neutron** is a neutral particle found in the nucleus of an **atom**.
4	The **mass number** of an element is the number of **protons** and neutrons in the nucleus of its atom.
5	The **mass number** of an element is the number of protons and **neutrons** in the nucleus of its atom.
6	An **isotope** is an atom of a particular element with a different number of **neutrons**.
7	An **electron** is a negative particle which orbits the nucleus of an **atom**.
8	An **ion** is a charged particle formed by an atom losing or gaining **electron**(s).
9	The **periodic** table is an arrangement of the **elements** in order of their increasing atomic number.
10	A **metal** is an **element** that forms a positive ion.
11	A **non-metal** is an **element** that forms a negative ion.
12	A positive **ion** is formed if a **metal** atom loses electron(s).
13	A negative **ion** is formed if a **non-metal** atom gains electrons(s).
14	**Electronic structure** is a set of numbers to show the arrangement of **electrons** in their shells.
15	The **outermost shell** is the highest energy level in the **electronic structure**.
16	The **atomic number** is the position of an element in the **periodic table**.
17	The total number of **proton**(s) in the nucleus of an atom is its **atomic number**.
18	A **group of elements** is a vertical column in the **periodic table**.
19	A **period of elements** is a horizontal row in the **periodic table**.
20	The number of shells in the **electronic structure** indicates which **period** in the periodic table the element is found.
21	The number of electrons in the **outermost shell** of an atom determines which **group** of elements in the periodic table it belongs to.