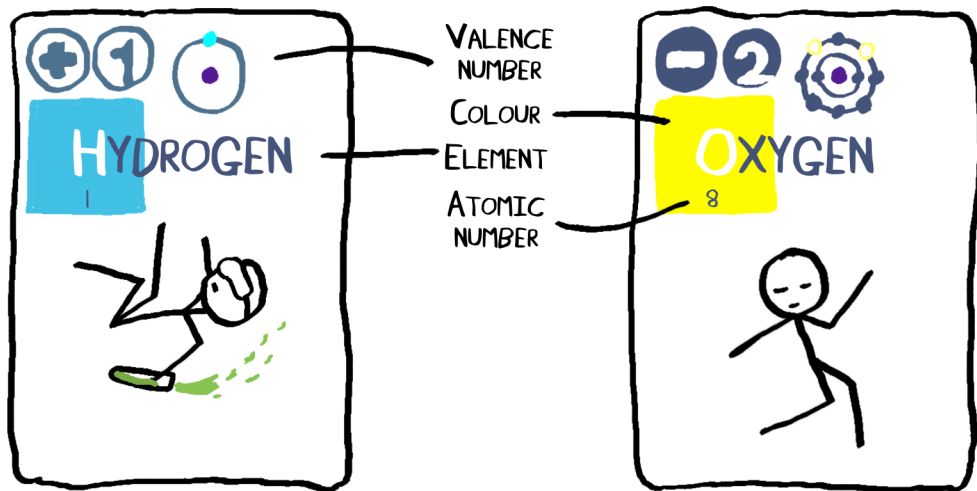


# ELEMENTS



# MOLECULES



# SYMBOLS



# VALENCE PLUS!



2-4 PLAYERS



8+ AGE



25 MINS GAME TIME

## HOW TO WIN

THE FIRST PLAYER TO 16 POINTS WINS THE GAME.

## HOW TO PLAY

1. REMOVE THE 'OGANESSON' AND 'HELIUM' CARDS AND RETURN THEM TO THE BOX.
2. PUT THE GAME BOARD IN THE CENTRE OF THE TABLE AND PLACE ALL OF THE MOLECULE CARDS ON THE APPROPRIATE SPACES.
3. SHUFFLE THE ELEMENT CARDS AND DEAL SIX TO EACH PLAYER. GIVE EACH PLAYER A 'RULES CARD'.
4. PLACE THE REMAINING ELEMENT CARDS FACE DOWN ON THE 'ELEMENT DECK' SPACE, THEN TURN OVER THE TOP CARD AND PLACE IT FACE UP ON THE 'DISCARD PILE' SPACE.
5. SELECT A PLAYER TO GO FIRST. PLAY PROCEEDS IN A CLOCKWISE DIRECTION.
6. EACH PLAYER'S TURN HAS THREE PHASES: COLLECT, BUILD, AND DISCARD:

**COLLECT** - CHOOSE ONE OF THESE ACTIONS (SEE RULES CARD): DRAW; EXCHANGE; TRADE UP; REACT.

**BUILD** - BUILD MOLECULES BY COMBINING ELEMENT CARDS WHOSE VALENCE NUMBERS ADD UP TO ZERO (SEE RULES CARD). DISCARD ANY ELEMENT CARDS USED AND TAKE THE RELEVANT MOLECULE CARDS, PLACING THEM IN FRONT OF YOU.

**DISCARD** - YOUR TURN ENDS WHEN YOU HAVE FINISHED MAKING MOLECULES. IF YOU HAVE MORE THAN SIX ELEMENT CARDS DISCARD DOWN TO SIX.

# ELEMENTS AND COMPOUNDS

(EXPLAINED THROUGH VALENCE)

EVERYTHING, EVERYBODY, AND EVERY CARD GAME, IS MADE UP OF ELEMENTS. ELEMENTS ARE THE RAW BUILDING BLOCKS THAT MAKE UP EVERYTHING.

AN ELEMENT IS AN ATOM THAT HAS A SPECIFIC NUMBER OF PROTONS, NEUTRONS, AND ELECTRONS.

THE ELEMENT CARBON HAS 6 PROTONS, 6 ELECTRONS AND 6 NEUTRONS. IF YOU ADD AN EXTRA PROTON THEN YOU NEED AN EXTRA ELECTRON TO STOP IT BEING CHARGED AND EXCITED, AND AN EXTRA NEUTRON TO MAKE IT STABLE. AND ADDING ALL THOSE MAKES CARBON BECOME NITROGEN.

ELEMENTS ARE THE SMALL UNITS OF BIGGER MOLECULES CALLED COMPOUNDS.

COMPOUNDS COME IN MANY DIFFERENT TYPES. ALL OF THEM ARE COMBINATIONS OF ELEMENTS OR EVEN THE SAME ELEMENT BONDED TO ITS SELF.

WHEN COMBINED THE COMPOUNDS THEY FORM ARE COMPLETELY DIFFERENT FROM THE ELEMENTS THAT THEY ARE MADE UP OF.

IN VALENCE THE COMPOUNDS GET YOU POINTS, SO REACT THOSE ELEMENTS INTO COMPOUNDS TO WIN!



# COMPOUND QUIZ

WHAT'S THE DIFFERENCE BETWEEN AN ELEMENT AND A COMPOUND?

WHICH OF THE FOLLOWING IS A COMPOUND?

H<sub>2</sub>O

Na

CH<sub>4</sub>

H<sub>2</sub>SO<sub>4</sub>

HCL

H

WHICH OF THESE CONTAINS SIX SULPHUR ATOMS AND TWO OXYGEN ATOMS?

S<sub>2</sub>O<sub>2</sub>

S<sub>6</sub>O<sub>2</sub>

SO<sub>3</sub>

SO

MATCH THESE COMPOUNDS TO THEIR COMMON NAMES

RUST • > CO<sub>2</sub>

CARBON DIOXIDE • > C<sub>12</sub>H<sub>22</sub>O<sub>11</sub>

SALT • > N<sub>2</sub>O

SUGAR • > FE<sub>2</sub>O<sub>3</sub>

LAUGHING GAS • > NaCl