

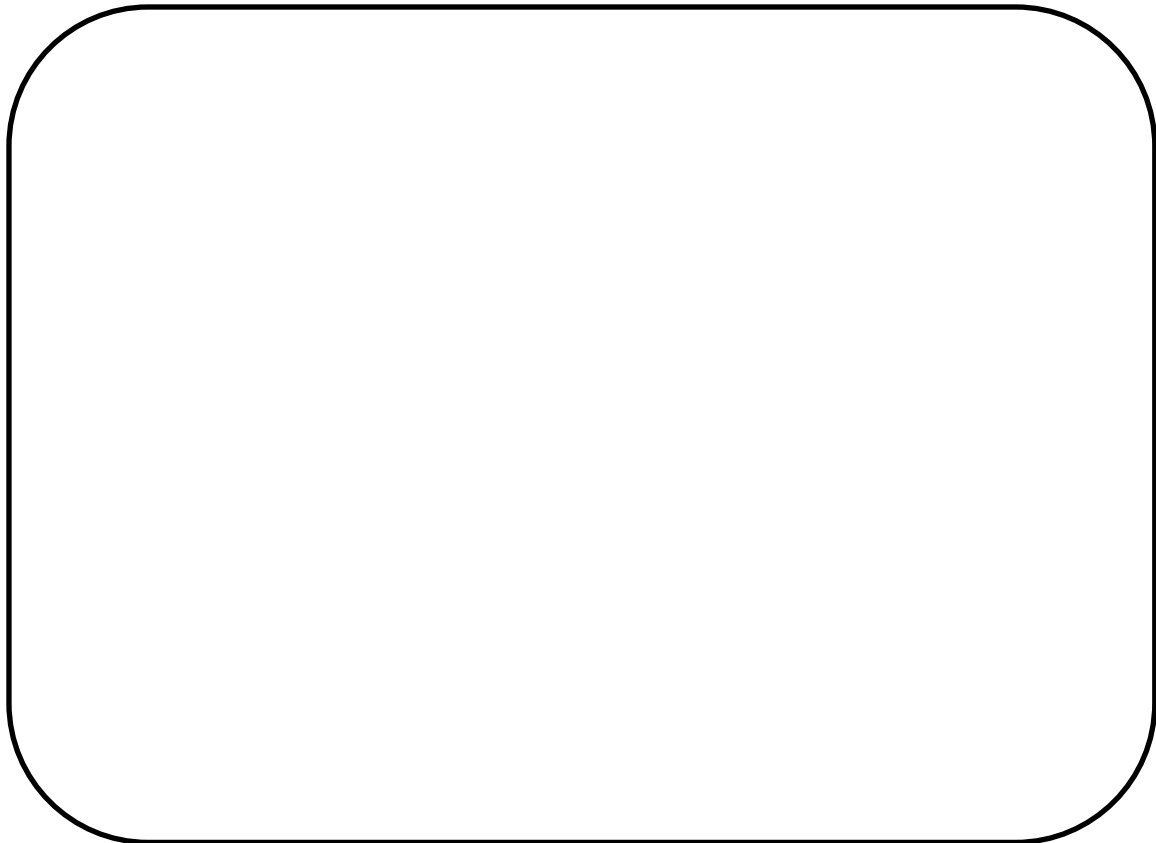
## Hand out

Aluminium is very versatile. Some of its key characteristics are:

- **Lightness.** Its density is only one-third that of steel.
- **Resistance** to weather, common atmospheric gases, and a wide range of liquids. It does not rust or corrode.
- **Suitability for contact with a wide range of foodstuffs.**
- **High reflectivity.** It is attractive for decorative uses like foil wrappings and drink cans.
- **Strength.** Aluminium alloys can equal or even exceed the strength of normal construction steel.
- **High elasticity**, which is an advantage in structures under shock loads.
- **Retention of toughness down to very low temperatures**, without becoming brittle like carbon steels.
- **Malleability.** It is easily worked and formed, and can be rolled to very thin foil.
- **Thermal and electrical conductivity.** Aluminium's ability to transfer heat and electricity nearly equals copper's.
- **Recyclability.** It can be recycled in a closed loop, without any loss of quality, whilst saving up to 95% of the energy needed to produce the metal from its raw materials.

## Worksheet

Draw a character that embodies the properties of aluminium.  
How many properties are you able to incorporate into your design?



Label the properties your character has.  
Describe your character and his/her powers.

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## Handout

Group →	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
↓ Period																		
1	1 H																	2 He
2	3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne
3	11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
4	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
5	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
6	55 Cs	56 Ba		72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
7	87 Fr	88 Ra		104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Cn	113 Nh	114 Fl	115 Mc	116 Lv	117 Ts	118 Og
Lanthanides	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu			
Actinides	89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr			