

## Algebraic mappings part 1

Whether you are a parent, teacher or home school educator, we've compiled examples of activities, games and puzzles which can be used to support the learning of algebra.

These examples are taken from the mapping packs found in our SMILE resource collection. The mathematical demand increases as you work through the packs. There are lots more ideas in the complete packs, which can be downloaded at <https://www.stem.org.uk/rxzec>

Answers to cards can be found at <https://www.stem.org.uk/rxxo5>

smile  
0241

A Secret Code

Copy and complete this code line

LOOK

19	13	9	12	5
↓	↓	↓	↓	↓
S	M	I	L	E

Here are some secret messages.  
What do they say?

(1) 

13	5	5	20
----	---	---	----

13	5
----	---

20	15	4	1	25
----	----	---	---	----

(2) 

3	1	12	12
---	---	----	----

20	8	5
----	---	---

16	15	12	9	3	5
----	----	----	---	---	---

(3) 

20	8	5
----	---	---

7	15	12	4
---	----	----	---

9	19
---	----

2	25
---	----

20	8	5
----	---	---

20	18	5	5
----	----	---	---

(4) 

7	15
---	----

20	15
----	----

20	8	5
----	---	---

8	21	20
---	----	----

1	20
---	----

20	5	14
----	---	----

(5) 

9
---

1	13
---	----

14	15	23
----	----	----

1
---

3	15	4	5
---	----	---	---

2	18	5	1	11	5	18
---	----	---	---	----	---	----

7	18	1	4	5
---	----	---	---	---

15	14	5
----	----	---

Now make up a message of your own. Try it on your friend.

# CRACKING THE CODE

...3 2 4 16 15...4 2  
...B A C O N...C A

Someone has found part of a secret code together with the message.

She decided to write out a table.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z

- Copy the table.
- She saw that **B** was **3** and that **A** was **2**.  
Write 3 under B; write 2 under A.
- Write in the other numbers you can see in the message.
- Finish the table using the numbers 1 to 26.

1) What does this message say?

24 2 10 21 / 7 16 19 / 14 6

2) What does this say?

14 6 6 21 / 26 16 22 / 2 7 21 6 19 / 5 2 19 12

3) Now put this into code.

HIDE FROM THE ROBBERS

4) Put this into code.

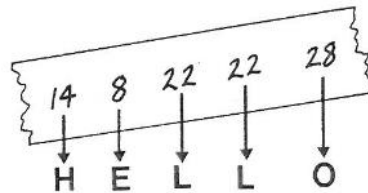
COME TO THE ZOO

# An even code

Smile Worksheet 1733

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

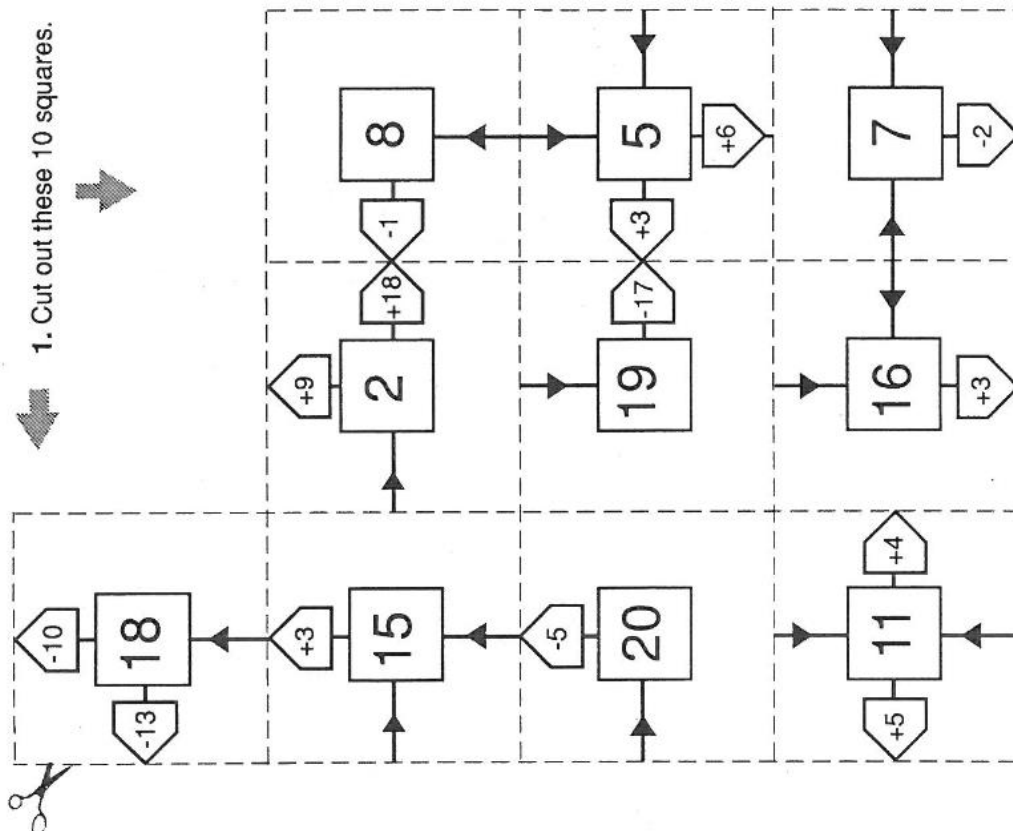
This message says "Hello"



What do these messages say?

- 40 36 8 ..... 38 14 8 ..... 4 28 6 8
- 20 8 8 30 ..... 36 24 16 22 16 26 12
- 38 44 28 ..... 0 26 6 ..... 38 44 28 ..... 24 0 20 8 ..... 10 28 40 34
- 16 ..... 4 0 26 ..... 40 36 8 ..... 38 14 8 ..... 8 42 8 26 ..... 4 28 6 8
- 8 42 8 26 ..... 26 40 24 2 8 34 36 .....  
0 34 8 ..... 0 22 22 ..... 24 40 22 38 16 30 22 8 36 .....  
28 10 ..... 38 44 28

## Mapping Jigsaw



# Mapping Rectangles

