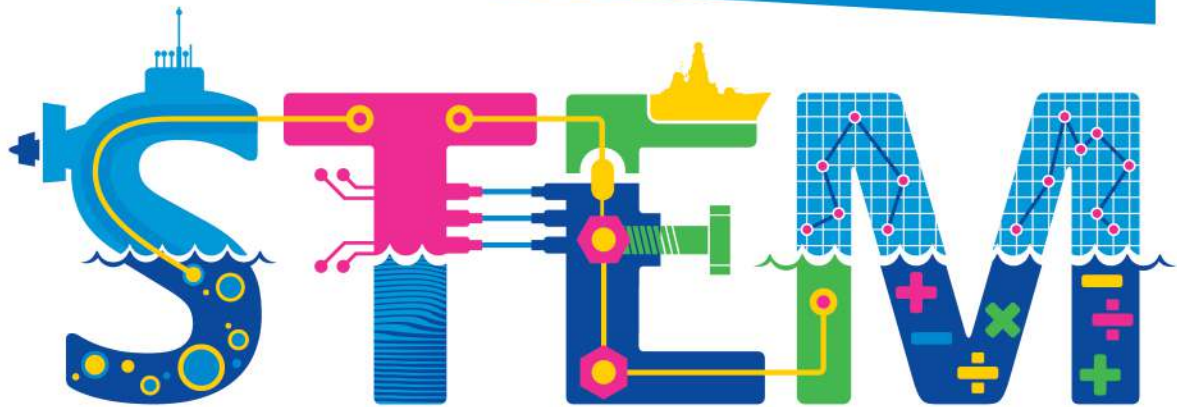


babcock™



SCIENCE | TECHNOLOGY | ENGINEERING | MATHS

Activity Book



S P H A W
U T R A A
P P Y O E
E A E P



$$6 + 4 =$$



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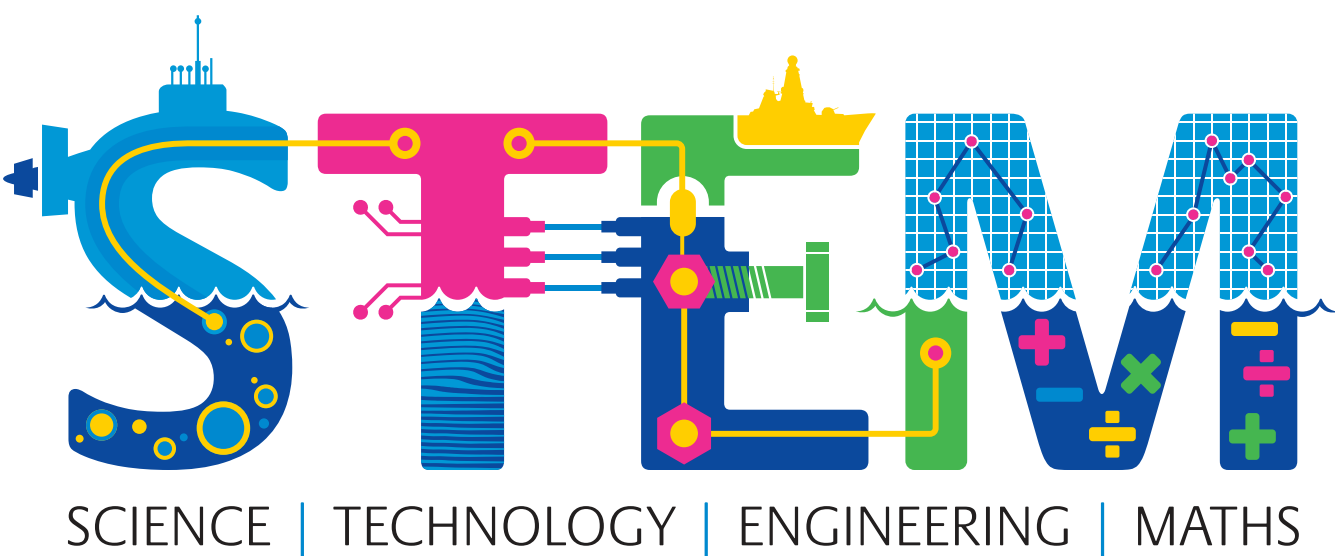
Introduction

This booklet has been produced by Babcock International at Devonport to provide fun, marine inspired activities, which will take readers on an exciting and educational journey through the Devonport Royal Dockyard, inspiring them through STEM based learning.

If you would like to submit any of your drawings or give us feedback, please send them to: Babcock.STEM.Events@babcockinternational.com

To find more information on our Babcock STEM team and some further activities we have on offer for you to complete at home, please follow the below link.

www.babcockinternational.com/who-we-are/babcock-and-stem/



Porty and friends dot to dot

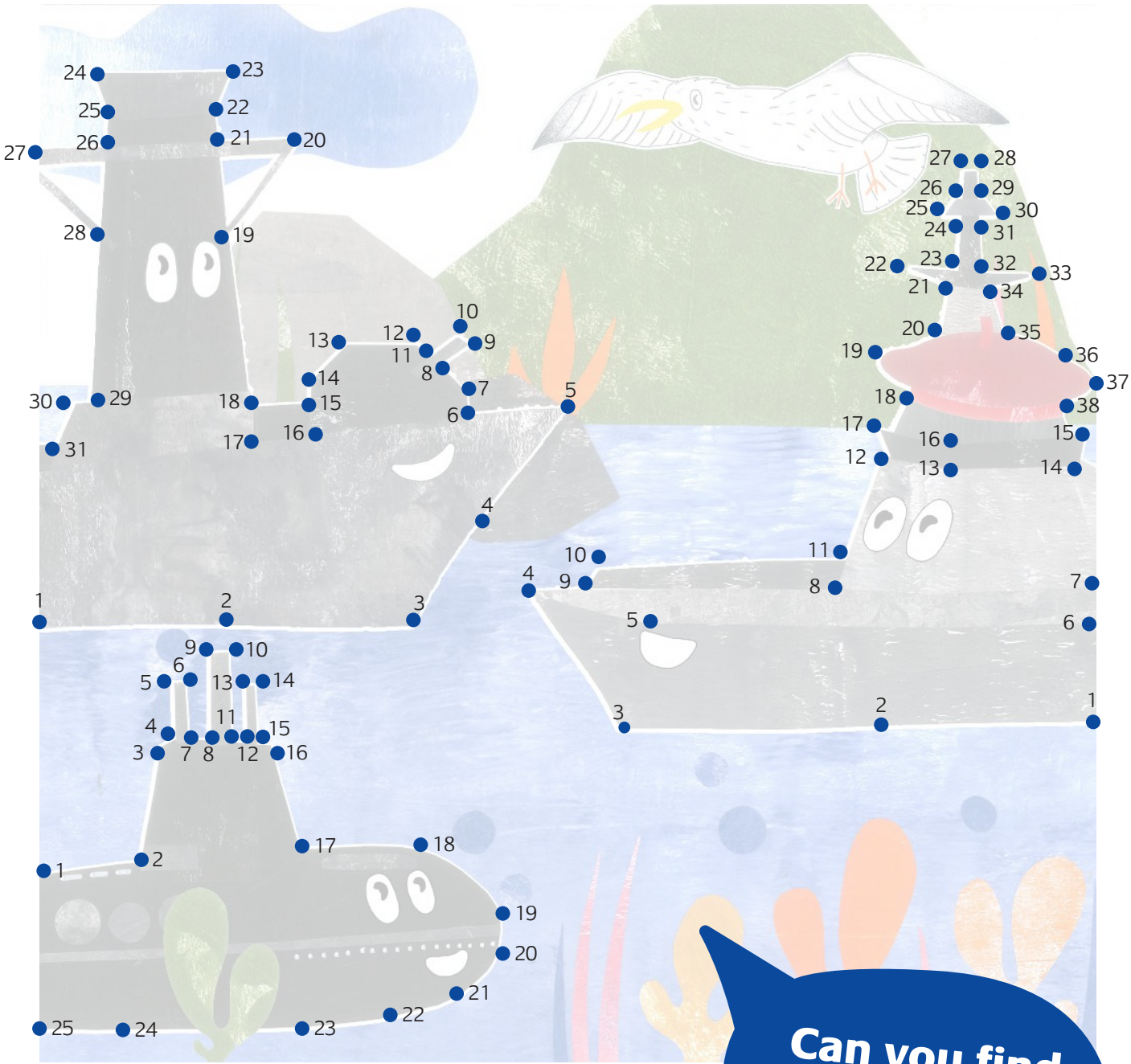
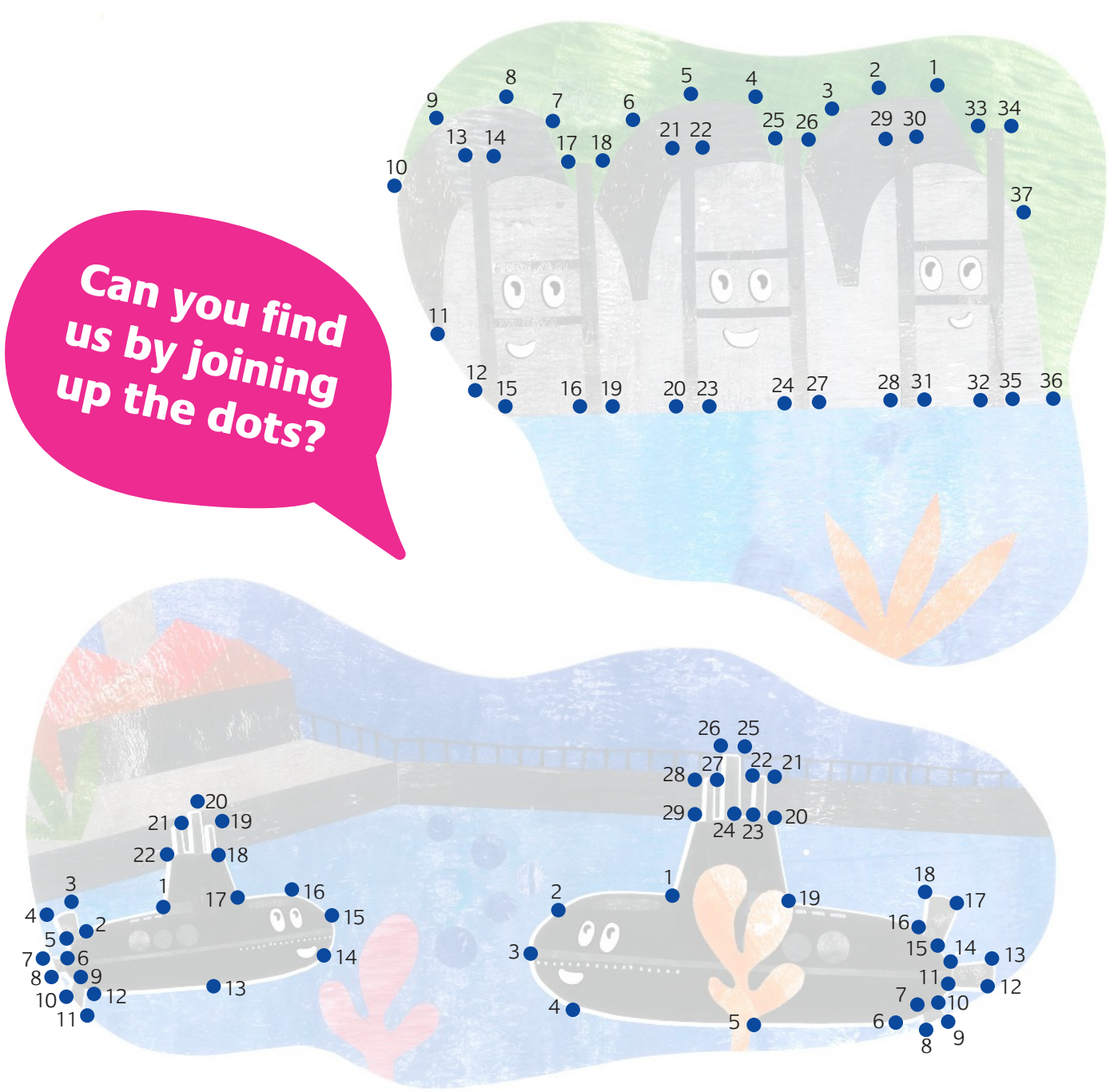


Illustration by April Howard

Porty and friends dot to dot



Illustrations by April Howard

Porty and friends drawing



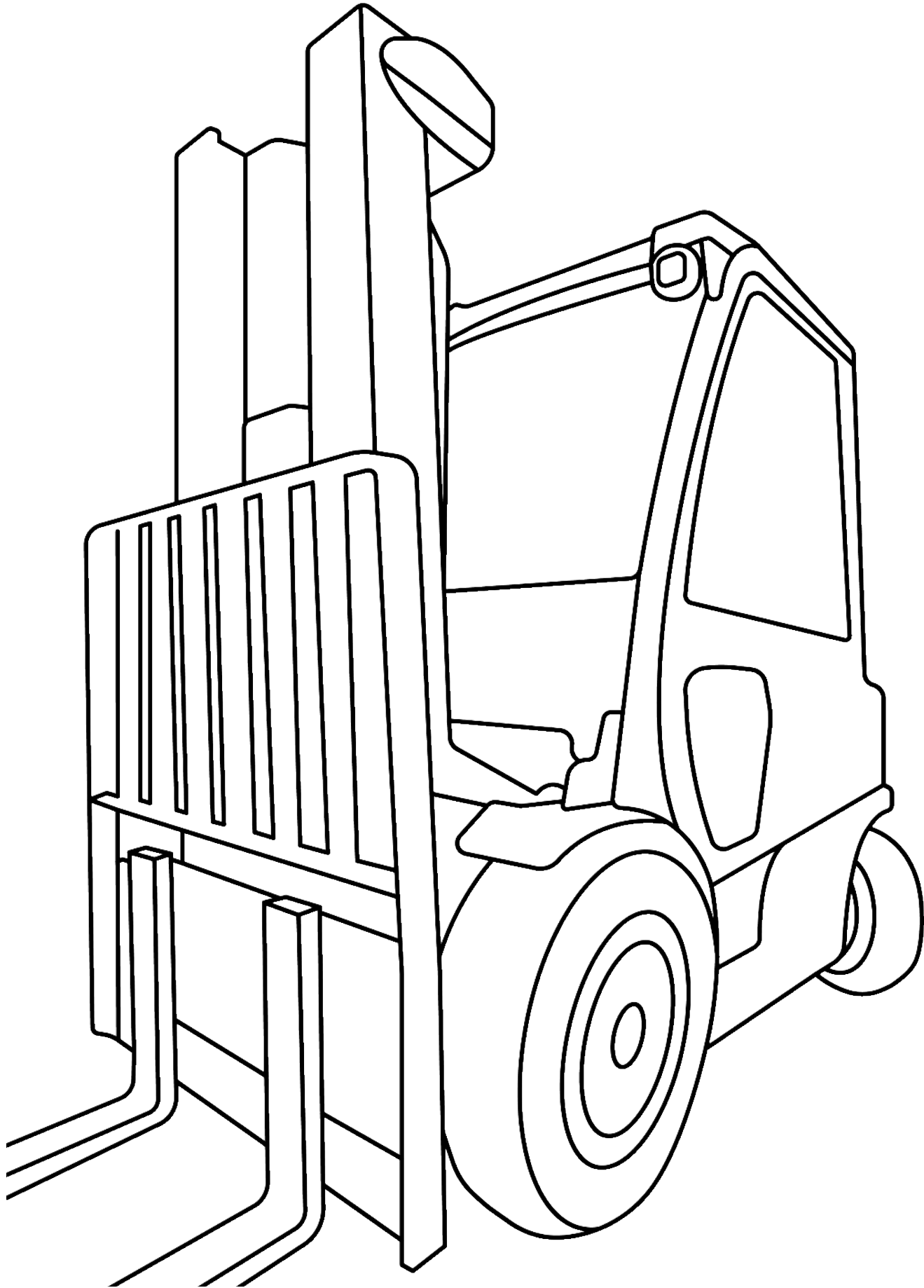
Illustration by April Howard



Colour in the diver



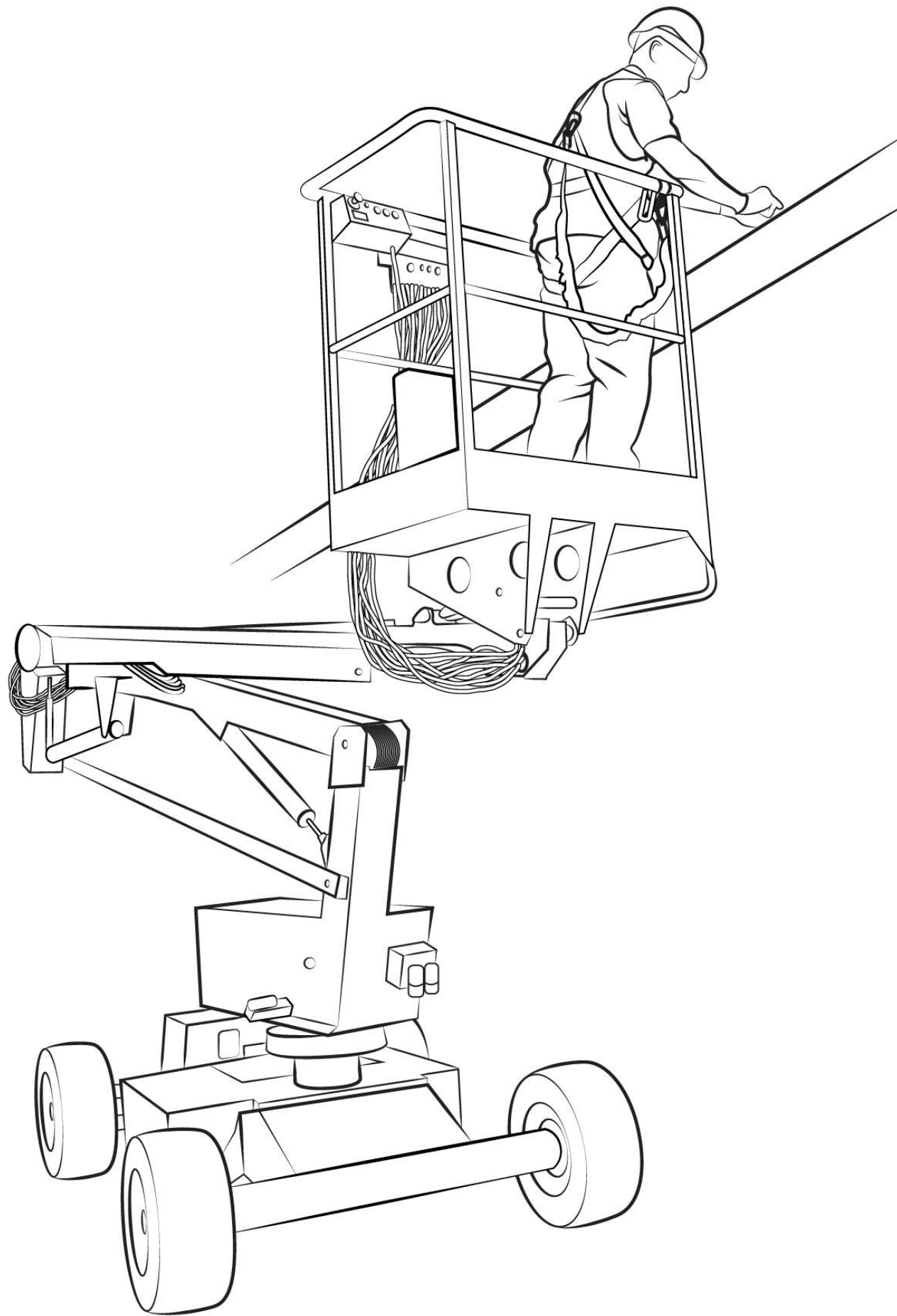
Colour in the fork lift



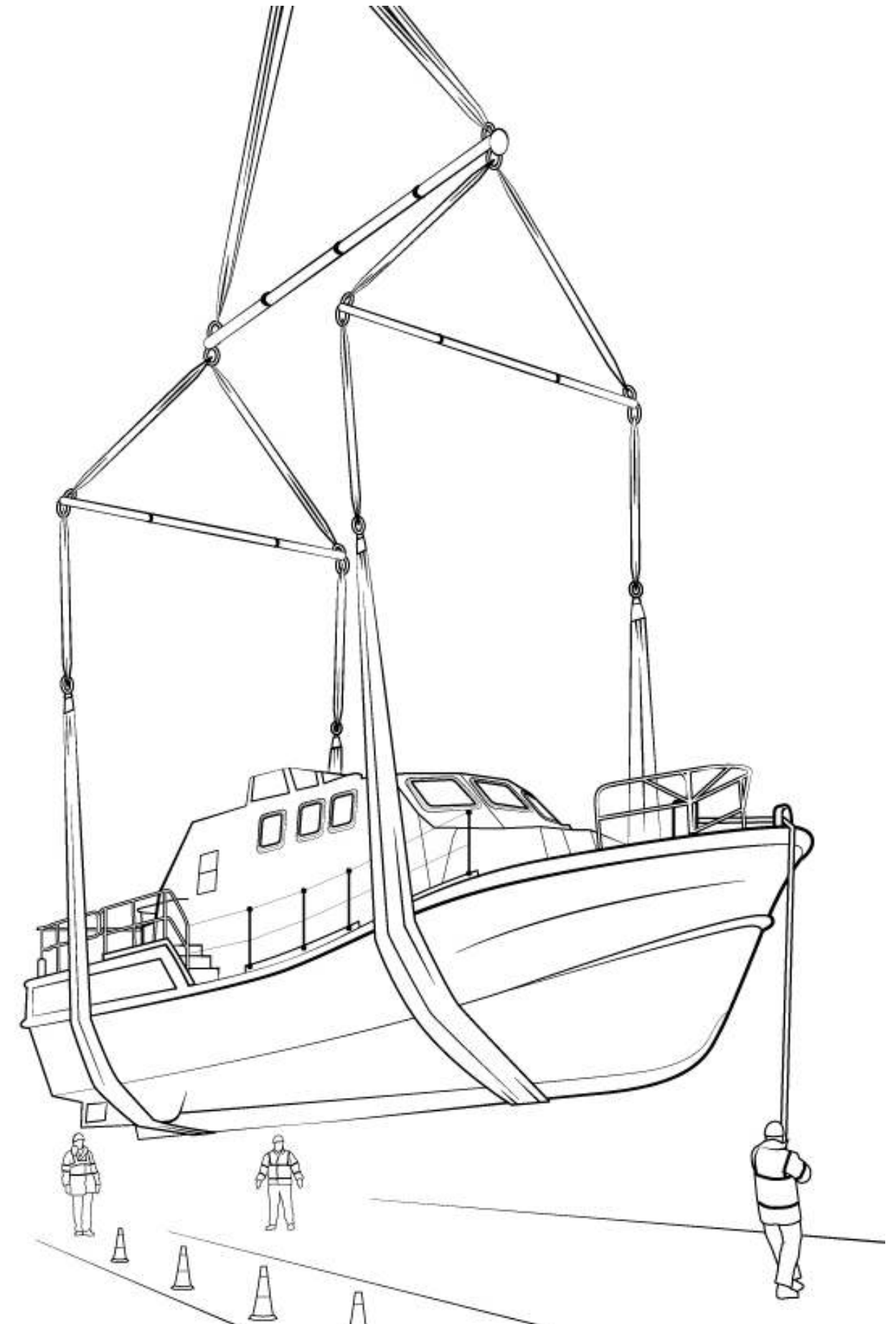
Colour in the Engineer



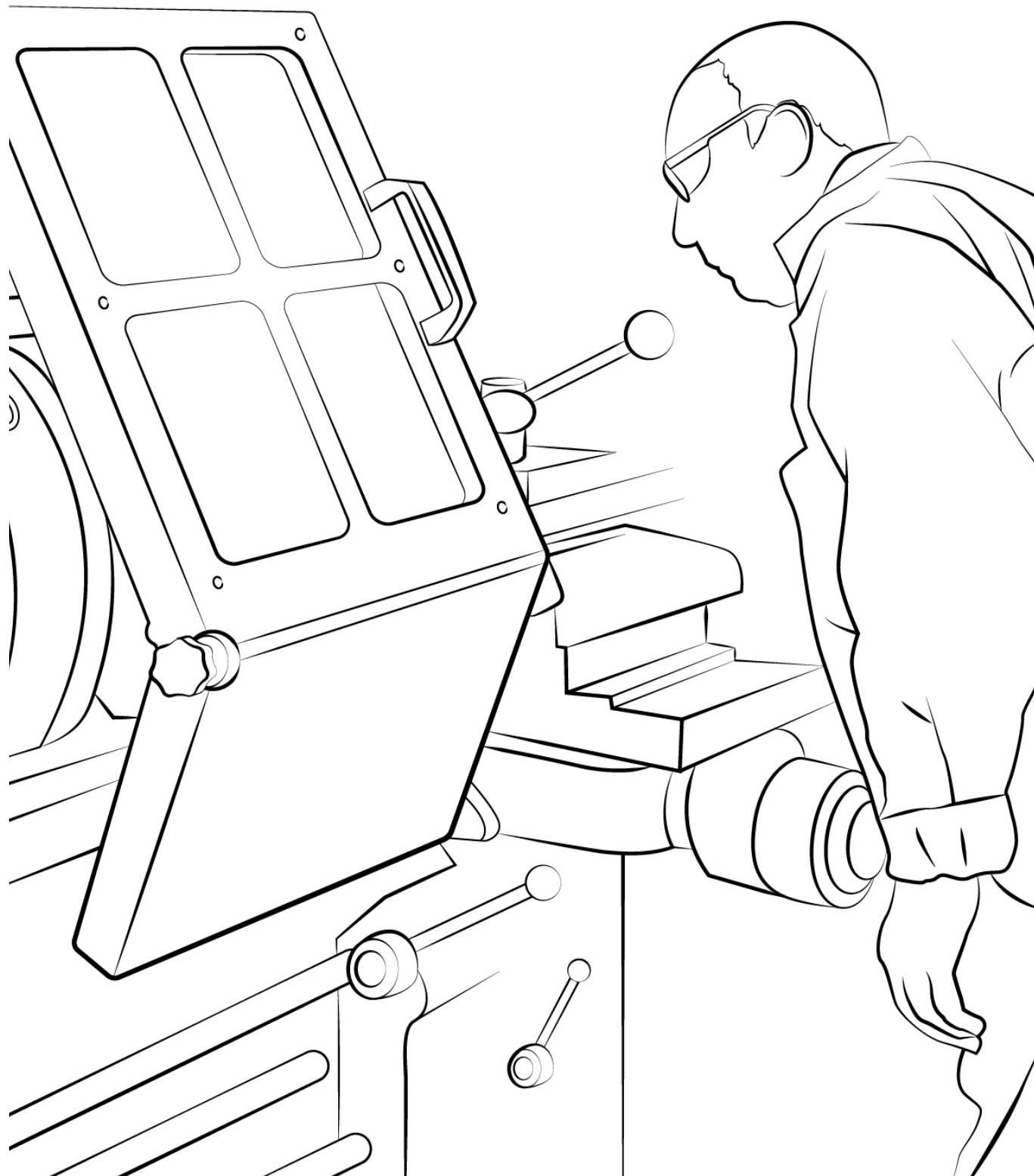
Colour in the lift



Colour in the slinger



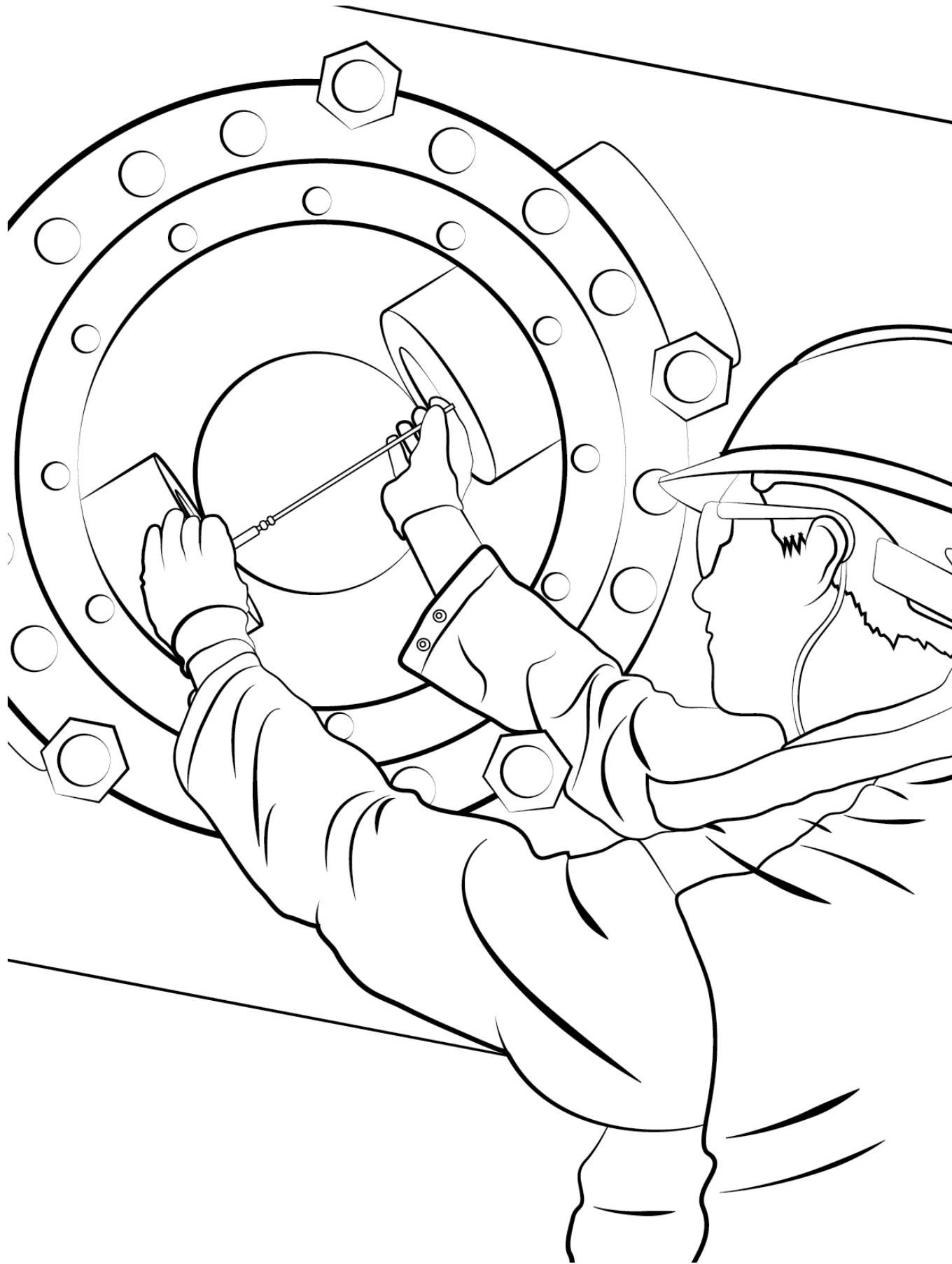
Colour in the Engineer



Colour in the Riggers



Colour in the Engineer

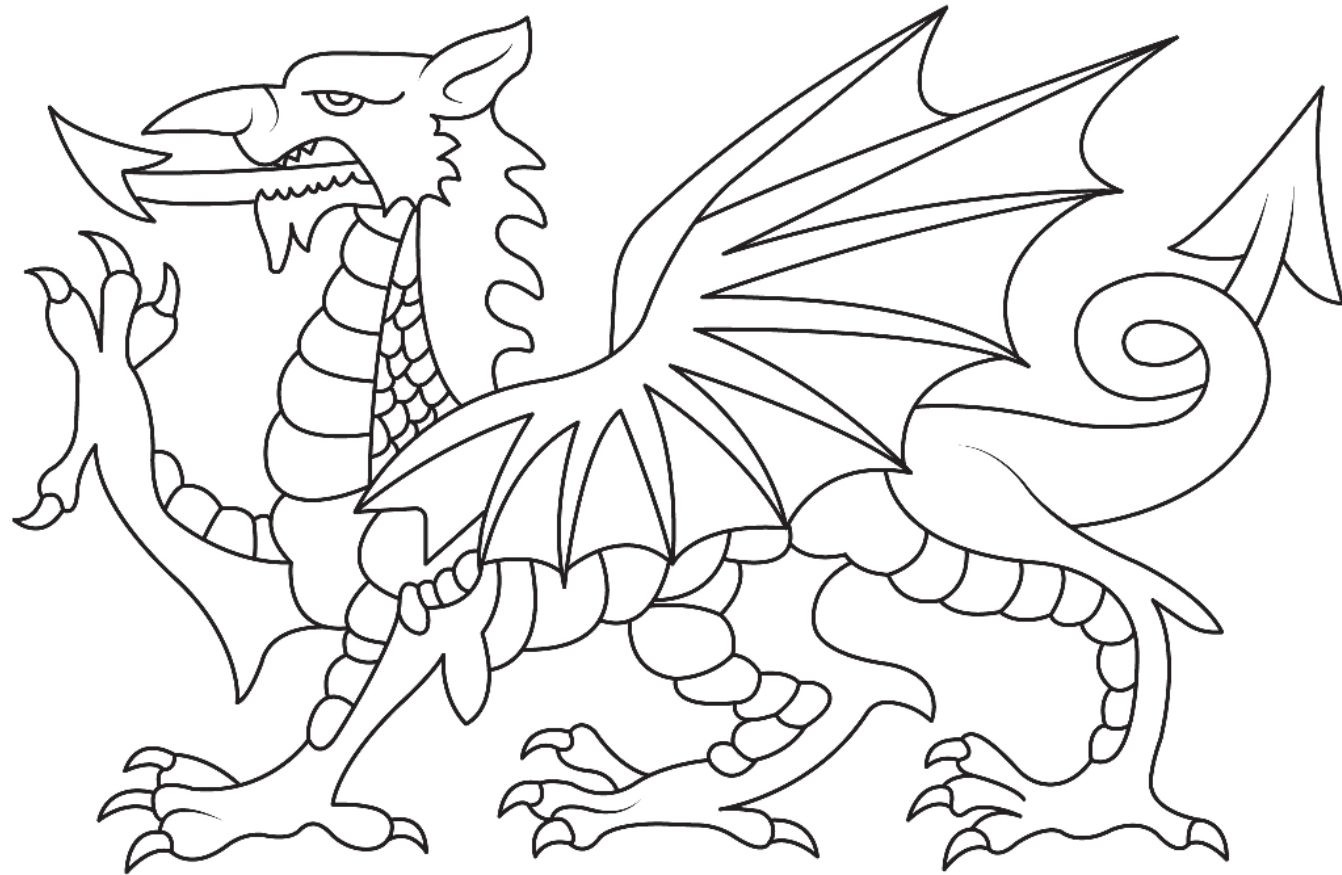


Colour in the Engineer



Colour in the dragon

Can you colour your dragon to look like the one on HMS Dragon?



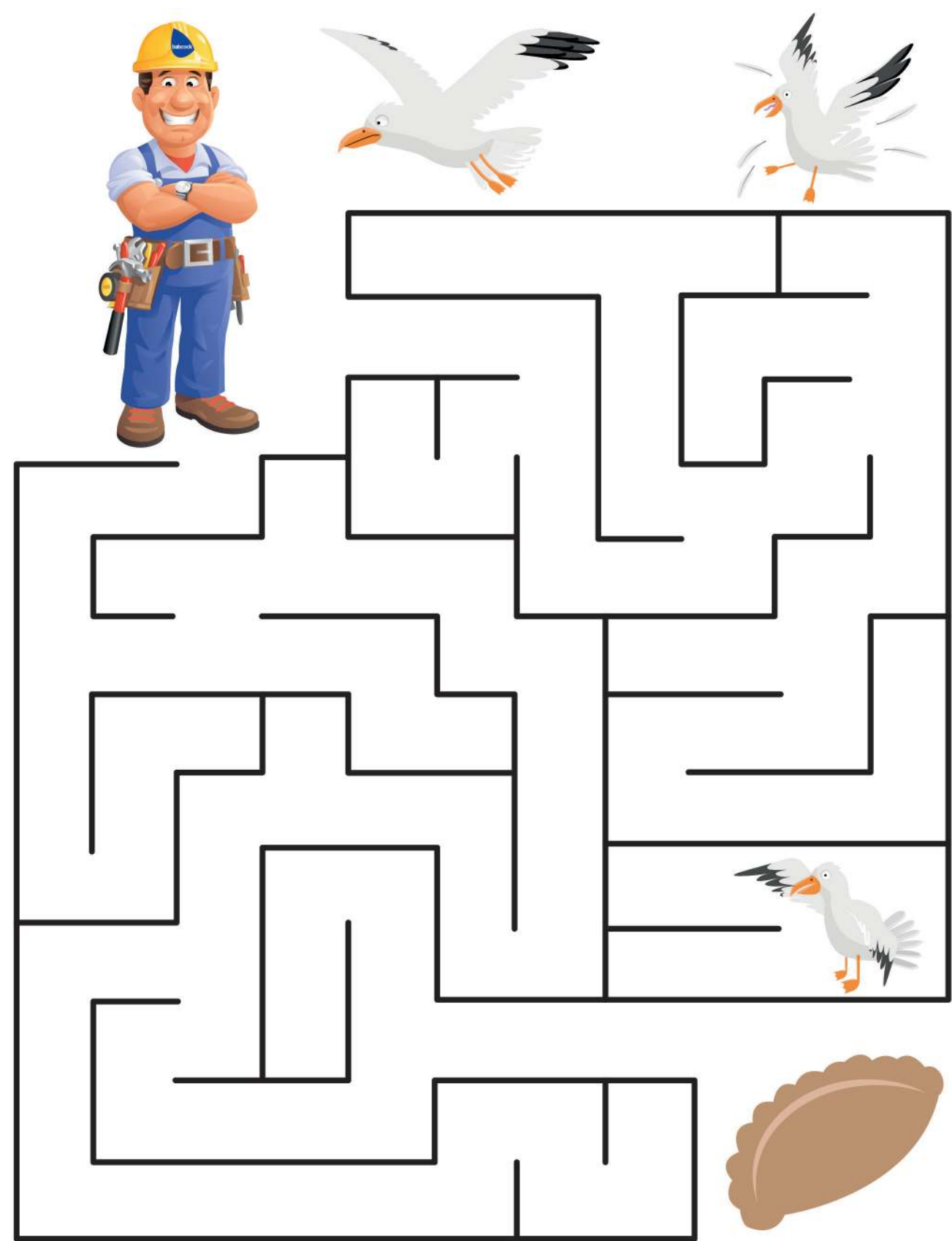
Maze game: Home safe

After a long day in the Dockyard can you find your way safely home?



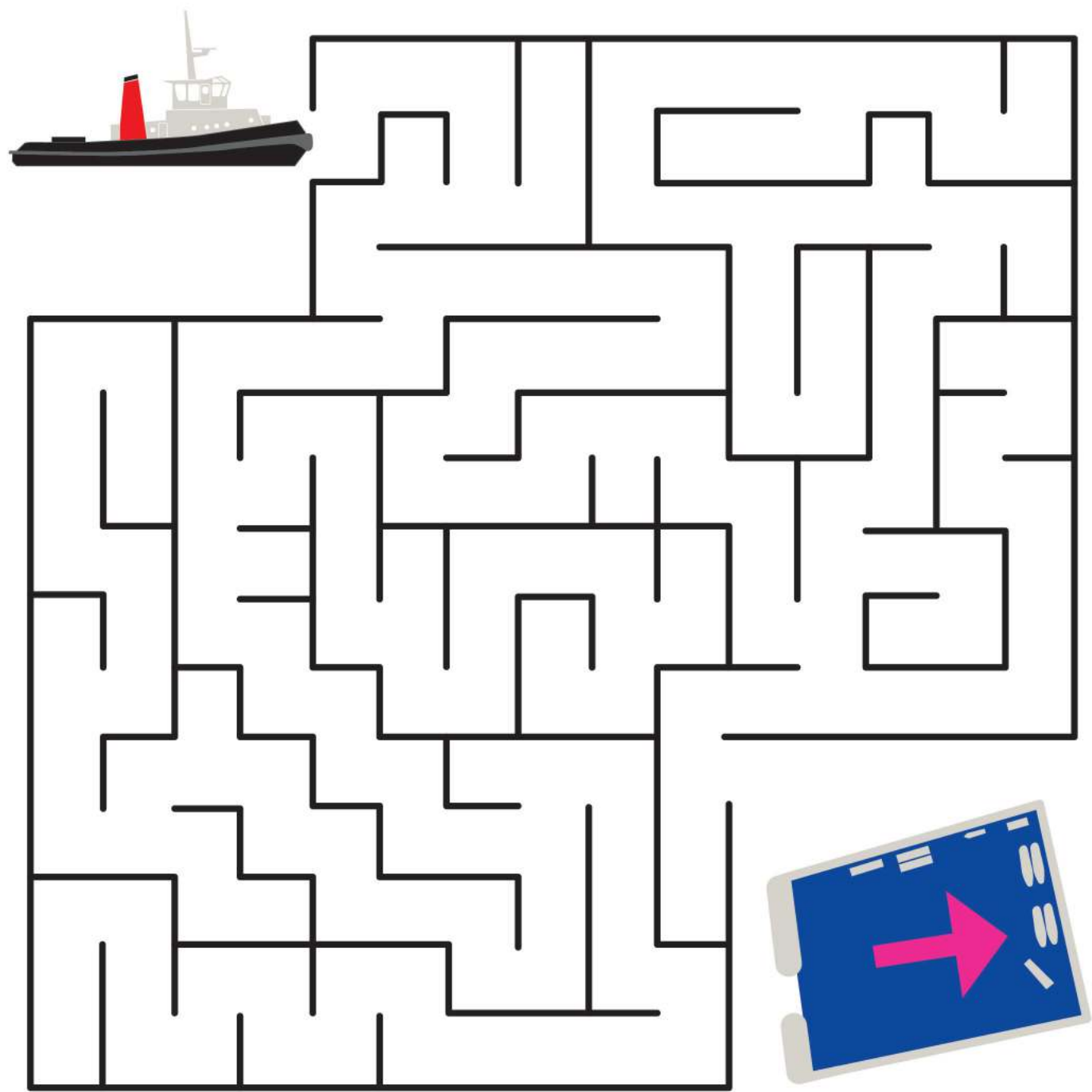
Maze game: Happy Gavin

‘Happy Gavin’ is very hungry, can you help him find his way through the Dockyard maze to his dinner before the seagulls get it?



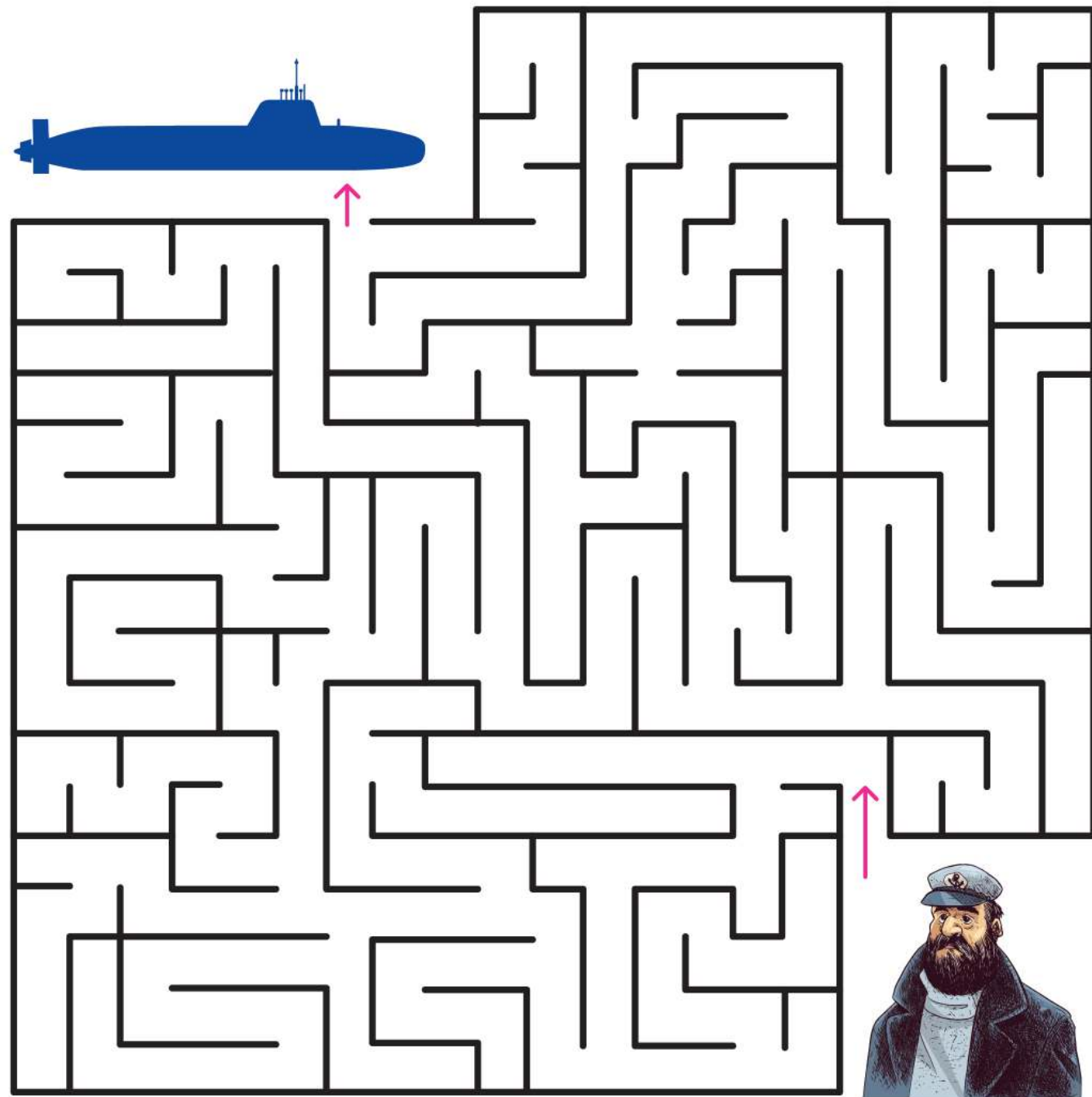
Maze game: Help the tug to the basin

Can you help our tug, SD Faithful, through the maze and back to her berth in 4 basin?



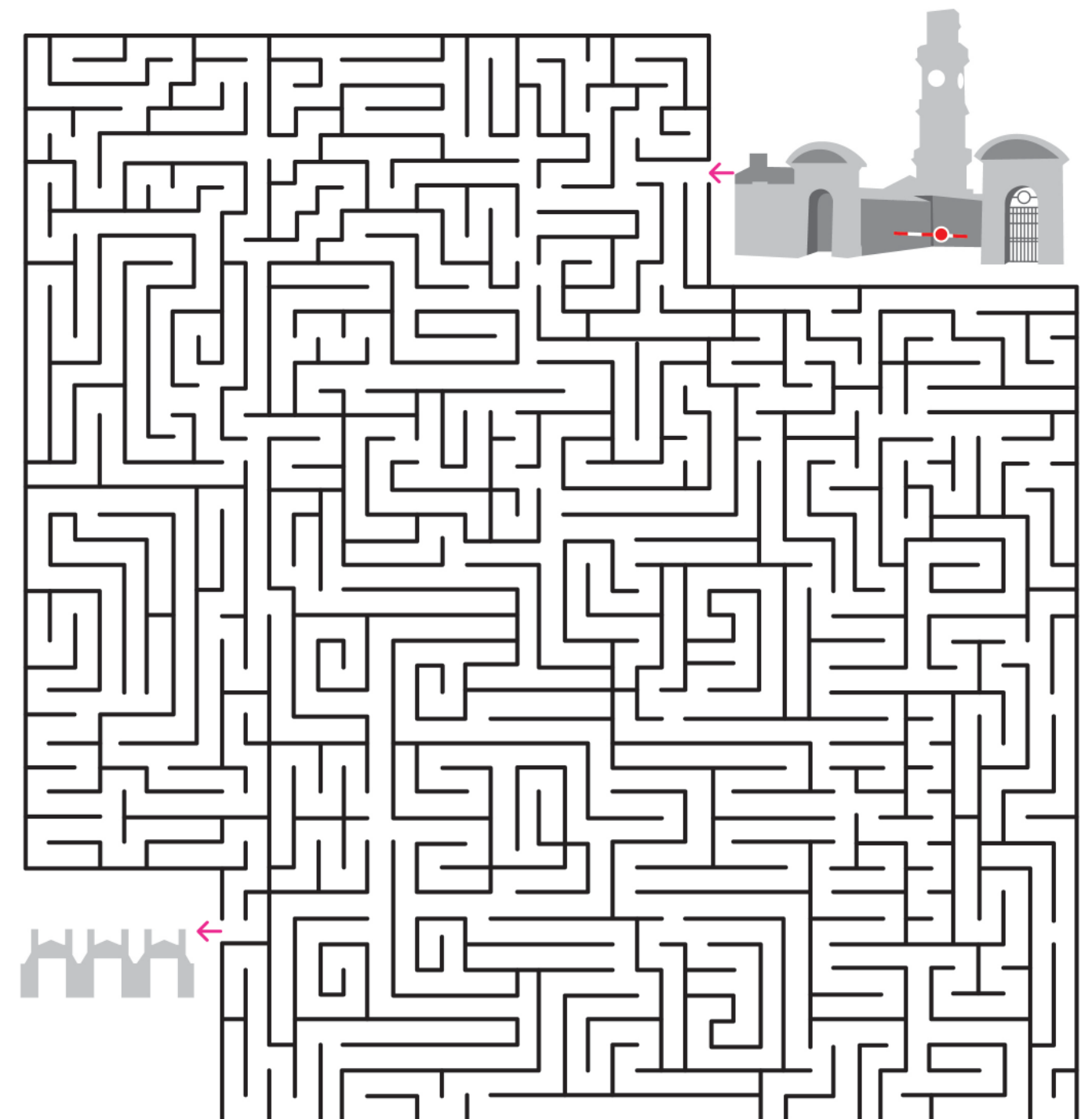
Maze game: Captain Fathom to submarine

Captain Fathom has lost his submarine, can you find a path through the maze to get him back on board?



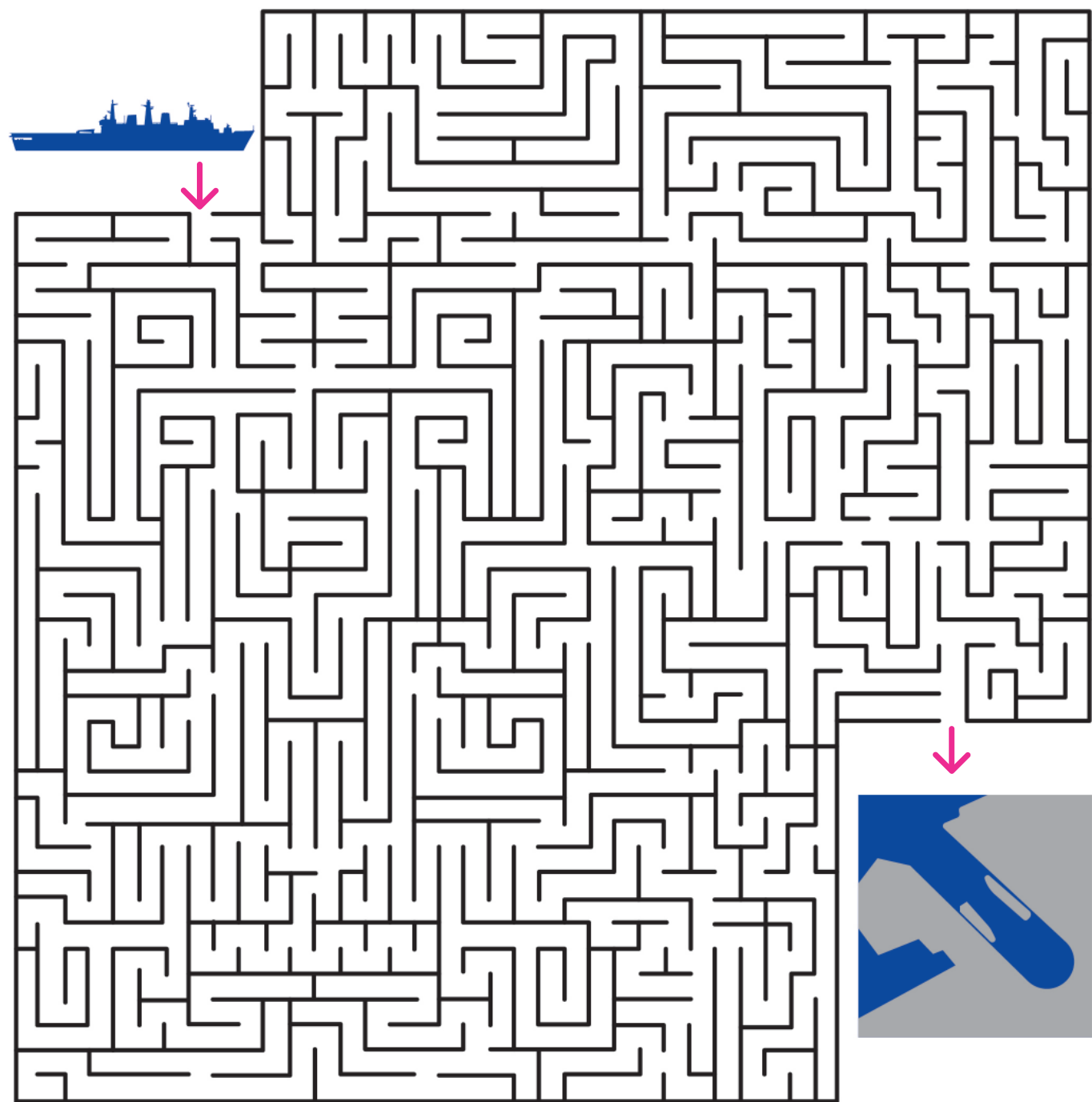
Maze game: Drake Main Gate to Frigate Support Centre

I am new to the Dockyard and need your help. Can you guide me from HMS Drake Main Gate through the Dockyard maze to the Frigate Support Centre (FSC) please?



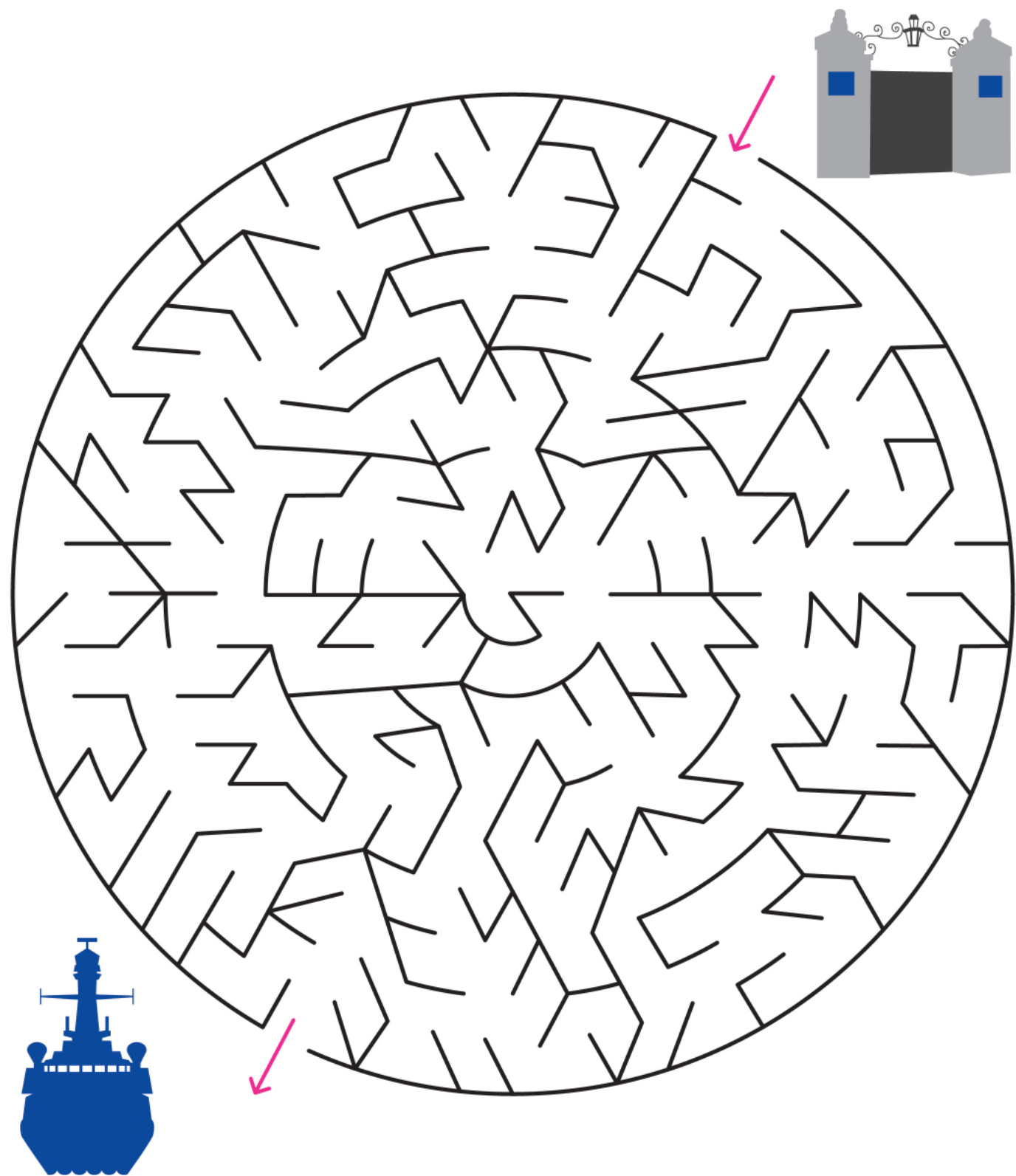
Maze game: HMS Bulwark to 16 Wharf

HMS Bulwark has been on a long deployment and needs to find her berth in Devonport. Can you guide her through the maze and up the river to her berth on 16 Wharf?



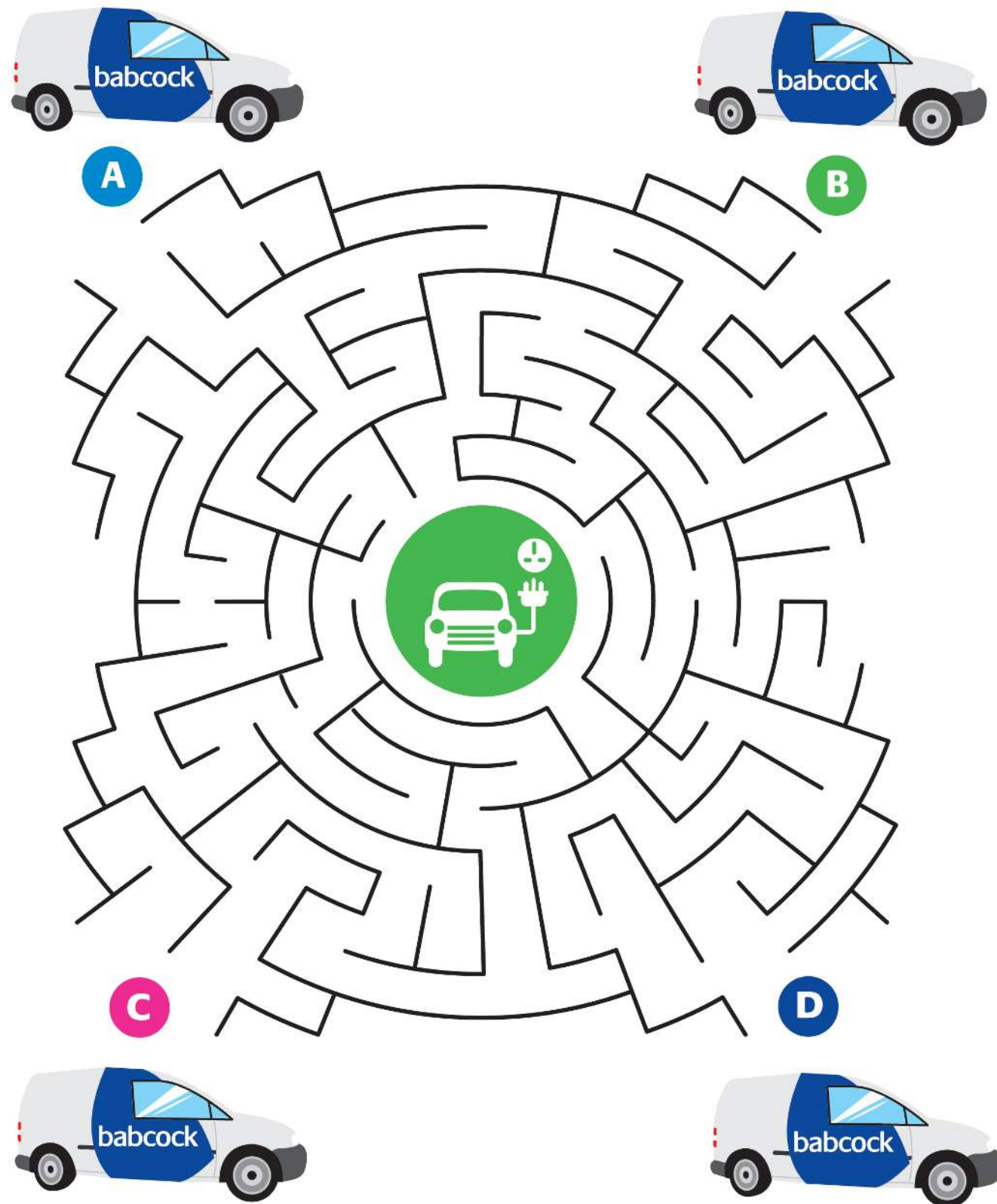
Maze game: Morice Gate to Portland

Can you find a way through the maze from HMNB Devonport Morice Gate to HMS Portland?



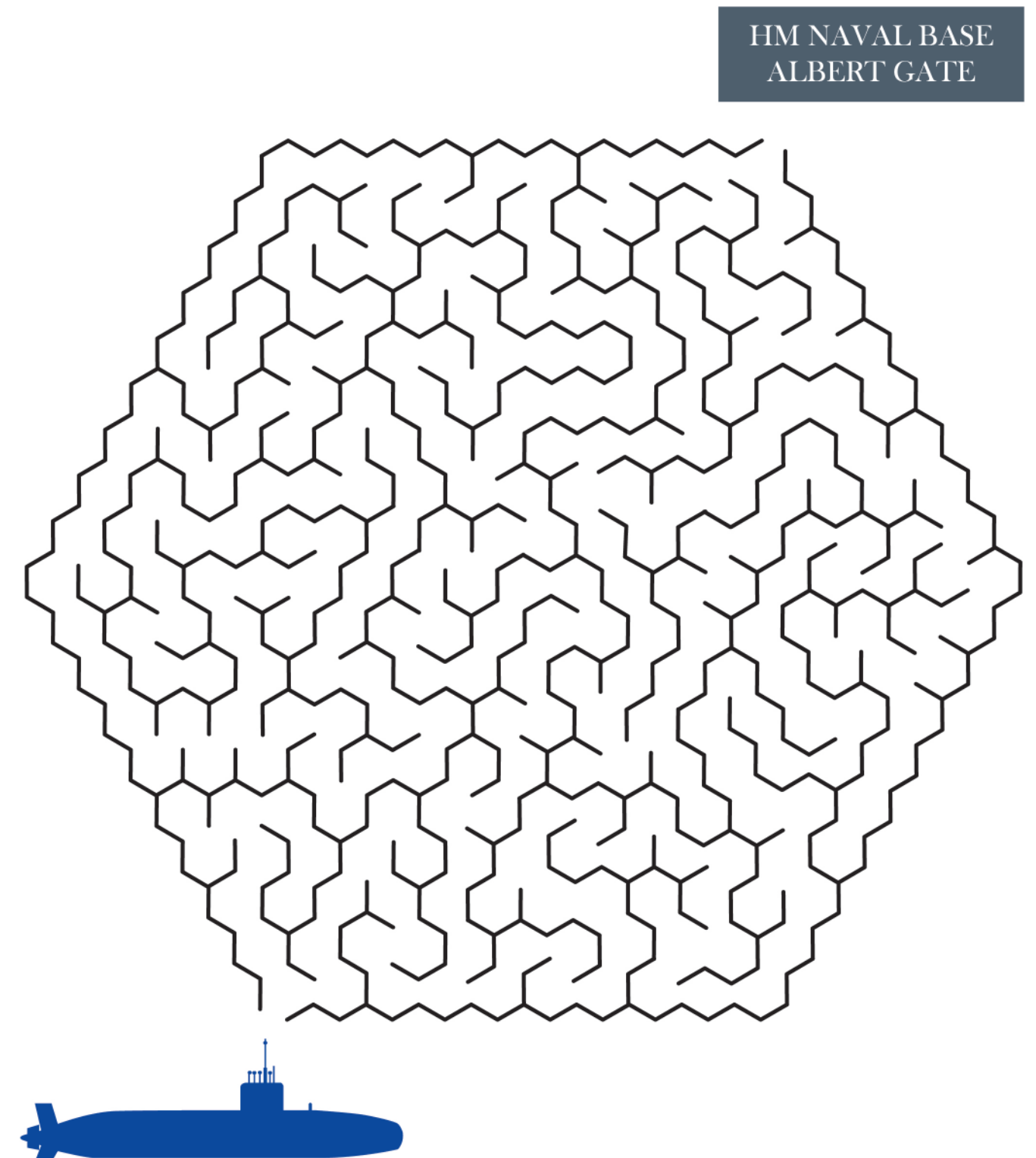
Maze game: Electric van

Can you solve the maze below to identify which new Babcock Electric van will reach the charging point first?



Maze game: Albert Gate to Courageous

Can you find a way through the maze from HMNB Devonport Albert Gate to Submarine Courageous?



Wordsearch: Porty

Hello! My name is Emily the Engineer, can you help me find some important words below?



s	b	h	h	c	a	f	t	f	m	w	i	m	y	l
s	p	r	p	u	i	z	h	q	e	q	y	z	s	e
p	u	i	e	t	r	o	p	n	o	v	e	d	c	n
k	o	b	h	a	e	m	i	l	y	j	n	z	i	n
i	z	r	m	s	k	c	m	i	q	i	s	p	e	u
n	x	j	t	a	d	w	q	m	s	b	o	z	n	f
s	u	d	f	y	r	n	a	n	a	e	c	o	c	p
v	i	r	c	u	g	i	e	t	v	e	x	x	e	d
c	b	r	r	x	o	q	n	i	e	s	i	u	o	m
e	c	n	e	r	r	e	t	e	r	r	m	c	o	h
e	n	g	i	n	e	e	r	t	t	f	k	t	c	u
i	e	r	b	l	d	d	z	x	e	y	o	a	p	l
s	h	i	p	t	a	t	u	g	a	r	n	j	v	l
q	y	p	v	t	n	k	g	r	g	c	q	v	w	i
z	v	z	v	f	i	n	d	r	n	u	y	h	m	c

Breakwater

Engineer

Motor

Ship

Devonport

Friendships

Ocean

Submarine

Dockyard

Funnel

Porty

Terrence

Emily

Hull

Science

Illustration by April Howard

Wordsearch: Devonport Dockyard

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

Basin

Security

Technology

Submarine

Tug

Jetty

Safety

Quality

Graduate

Dry dock

Repair

Crane

Metallurgy

Manufacture

Laboratory

Berth

Frigate

Nuclear

Stores

Wordsearch: Different gases

E M L E D G R O A A N A P N
D O N R S A N U E R E E R X
I M G X D D Y X B G D D O E
X T O O Y H E L I U M I P N
O A N E N A H T E M H X A O
N L H O O X N N N T P O N N
O O Y N O H E L E O O S E N
M D D O X A O O G D O U P E
N L R G Y N N N O E N O F F
O T O R G H A A R T E R G N
B E G A E A D H T R E T O E
R E E E N E E T I O I I N T
A M N N O D E E N N N N X O
C I O O A D E M H D E G R O

- | | | |
|-----------------|---------------|----------|
| Argon | Methanol | Radon |
| Helium | Oxygen | Methane |
| Carbon Monoxide | Nitrogen | Neon |
| Freon | Xenon | Hydrogen |
| Propane | Nitrous oxide | |

Wordsearch: Electronic parts

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

- | | | | |
|----------|------------|------------|---------|
| Light | Switch | Plug | Battery |
| Fuse | Components | Copper | Buzzer |
| Resistor | Cable | Lamp | Plastic |
| Output | Soldering | Safety | Wires |
| Motor | Evaluation | Transistor | Circuit |

Wordsearch: Nuclear

F I S S I O N A B E T A P E
N C A C T A R H I N L R U L
E L I M C G A M M A O C H E
U M N E N E R G Y T A E R C
T E G R A H C T O N V A D T
R P T C R A S N U U L L N R
O N U C L E A R G L I P O O
N G A F U S I O N G I H O N
E N O I T C A E R N I A H C
D E C A Y C O N S T A N T O
Y E N R A D I A T I O N R R
E E I R O P A R T I C L E S
C L R A D I O A C T I V E O
O E T E L E M E N T I C H R

Proton	Neutron	Beta	Element
Decay constant	Energy	Particles	Fusion
Chain reaction	Radiation	Charge	
Nuclear	Fission	Gamma	
Alpha	Radioactive	Electron	

Wordsearch: Submarines

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

Patrol	Hatch	Undetected	Wardroom
Underwater	Radar mast	Systems	Covert
Planes	Submarine	Periscope	Casing
Bulkhead	Escape	Silent	Rudder
Sonar	Fin	Reactor	Trim

Wordsearch: Surface ships

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- Radar

Amidships

Propeller

Displacement

Aft

Bridge

Anchor

Bow

Laundry

Galley

Superstructure

Mast

Fore

Hawse pipe

Navigation

Keel

Mess

Stern

Wordsearch: STEM

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- Coaching

Mentor

Dockyard

Land

Education

Mathematics

Royal

STEM

Ambassador

Science

Marine

Learning

Nuclear

Engineering

Graduate

Devonport

Aviation

Technology

Subtraction & addition

(easy)

Can you fill in the yellow blanks to complete the number square?

6	+	4	=		+		=	15
+		+		-		-		-
	-	4	=	4	+		=	5
=		=		=		=		=
14	-		=	6	+		=	
-		-		+		+		-
5	+		=		-	4	=	4
=		=		=		=		=
	+	5	=		-	8	=	

Subtraction & addition

(easy)

Can you fill in the missing numbers, addition, subtraction and multiplication symbols in the yellow boxes?

6		9	=	15
+				+
8		4	=	
=		=		=
14		5	=	19

9		7	=	2
		-		
2		4	=	6
=		=		=
	-	3	=	8

8		3	=	5
		+		
9		7	=	2
=		=		=
17		10	=	7

7		2	=	5
9		6	=	3
=		=		=
16		8	=	8

9	-	6	=	3
4		2	=	6
=		=		=
5	+	4	=	9

3		7	=	10
		-		
9	-	5	=	4
=		=		=
12		2	=	14

Subtraction & addition (moderate)

Can you fill in the missing addition and subtraction symbols in the yellow boxes?

5		4	=	9
8		2	=	6
=		=		=
13		2	=	15

6		7	=	13
8		3	=	5
=		=		=
14		4	=	18

9		8	=	17
2		4	=	6
=		=		=
7		4	=	11

7		8	=	15
2		4	=	6
=		=		=
5		4	=	9

8		9	=	17
7		4	=	3
=		=		=
15		5	=	20

8		6	=	2
3		4	=	7
=		=		=
11		2	=	9

Subtraction & addition (hard)

Can you fill in the missing addition and subtraction symbols in the yellow boxes?

9		5	=	14
7		3	=	4
=		=		=
2		8	=	10

8		5	=	13
2		3	=	5
=		=		=
10		2	=	8

9		2	=	7
5		3	=	2
=		=		=
4		5	=	9

6		2	=	4
8		3	=	5
=		=		=
14		5	=	9

4		9	=	13
8		2	=	6
=		=		=
12		7	=	19

6		4	=	10
5		2	=	3
=		=		=
11		2	=	13

Subtraction & addition

(harder)

Can you fill in the missing numbers, addition and subtraction symbols in the yellow boxes?

63		51	=	114
50			=	4
=		=		=
113		5	=	

89		84	=	173
92	-		=	65
=		=		=
	+	57	=	238

83		79	=	162
				-
61		62	=	
=		=		=
22	+	17	=	

91		28	=	119
				-
44		33	=	
=		=		=
47		61	=	

96		21	=	117
		-		
74		16	=	
=		=		=
170		5	=	

60		65	=	125
90		54	=	36
=		=		=
150		11	=	161

Number crossword

Can you complete the addition, subtraction, multiplication and division equations below and fill in the yellow blanks to complete the crossword?

12	+		=	36					
			÷		÷				
	-		=	4					
x			=		=		÷		
			6			x	5	=	
=							=		
56		20	-		=	11			3
		+		x					x
84	÷		=						13
			=		=				=
					63	-		=	

Subtraction crossword

Can you fill in the yellow blanks of each puzzle to make the subtraction equations?

74	-		=				-	12	=		
-					-		-				-
	-		=	23		32	-		=	18	
=					=		=				=
21		51	-	23	=						

							-	56	=	31	
-				-		-					-
34		87	-	44	=						79
=					=		=				=
65	-		=				-	13	=		

Multiplication crossword

Can you fill in the yellow blanks to make the final sums correct?

2	x	4	=								
		x		x							
				9	x		=	9			
		=		=		x		x			
6	x	12	=	72							
x									=		=
	x	5	=		3	x	9	=			
=									=		
36	=	9	x		1	x		=	3		
		x		x	x					x	
	x	3	=	9							
x			=		=						
7											
=											
	11				x	3	=		x		
				x						x	
7					x	6	=		4		
x			x	=		x				=	
5	x	6	=		2	x	10	=			
=			=					=			
	48		=	4	x						

Dockyard maths rally

Can you fill in the yellow blanks to make the final sums correct?

HOME SAFE
EVERYDAY



2	+	8	x	2	=								
				+		+							
17	+	8	+			20				-	37	=	
+				=		=				=			
9				80	÷		=				6		30
+								+			x		+
23	+	4	+	2	-	69	=				6		4
											=		=

14	+	10	+	8			=		+	
+				+		+				
18				12	+	12	+	12		
=										

	-	43	÷	2	=			2	+	2	=	
				+		+		+			÷	
				2	+	2					=	8

	=	9	+	14	+	19	+	18	+	21		
-												
19			-	16	=			2	+	23	=	
-	17	-	13			x	2	x				

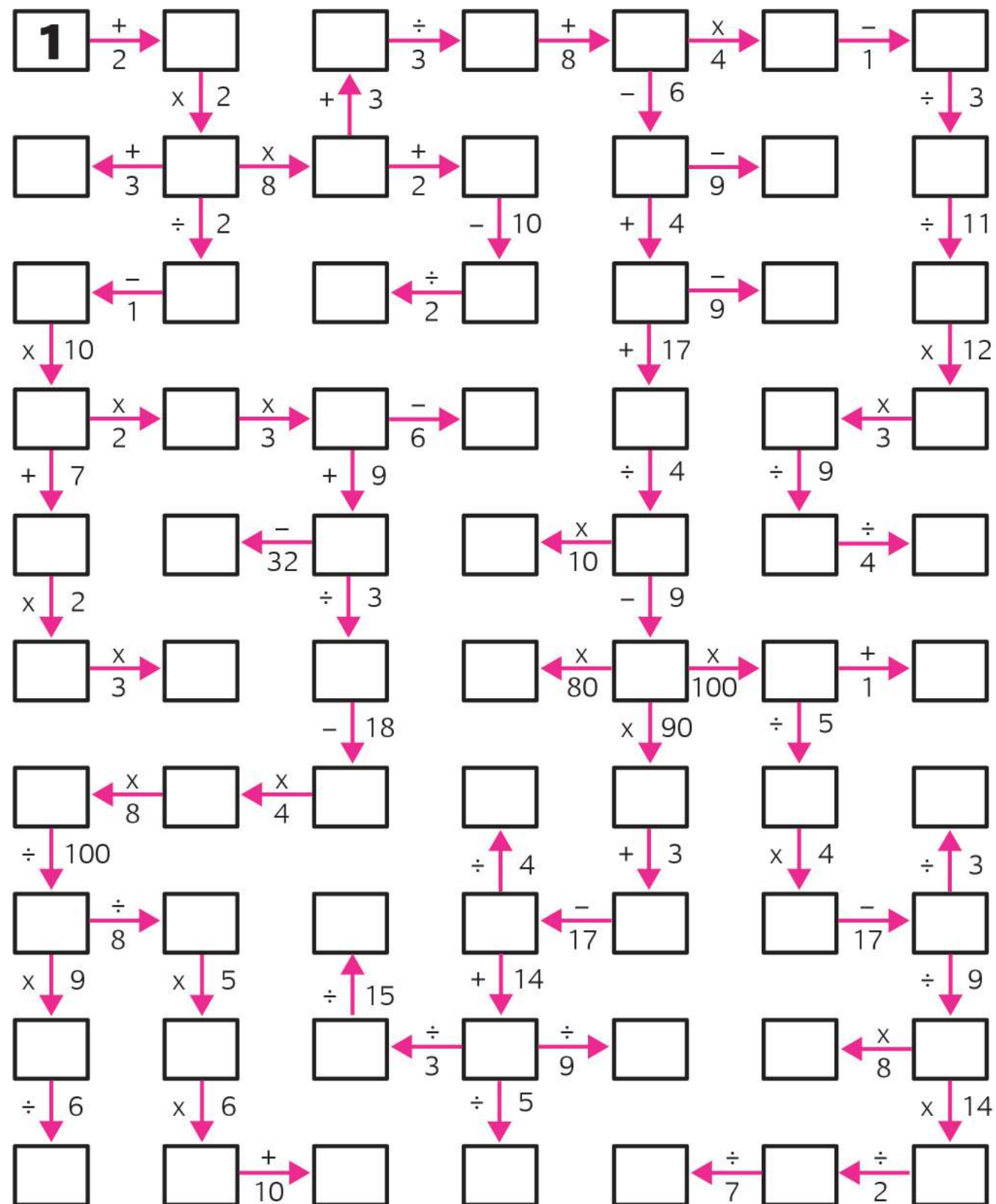


Hexagon addition

Each hexagon is made by adding up the numbers in the two hexagons below it. Fill in the missing numbers in these puzzles.

Number snake

Can you complete the number snake?



Answers

Pg 34: Number square

6	+	4	=	10	+	5	=	15
+		+		-		-		-
8	-	4	=	4	+	1	=	5
=		=		=		=		=
14	-	8	=	6	+	4	=	10
-		-		+		+		-
5	+	3	=	8	-	4	=	4
=		=		=		=		=
9	+	5	=	14	-	8	=	6

Pg 35: Subtraction & addition (easy)

6	+	9	=	15
+		-		+
8	-	4	=	4
=		=		=
14	+	5	=	19

9	-	7	=	2
+		-		+
2	+	4	=	6
=		=		=
11	-	3	=	8

8	-	3	=	5
+		+		+
9	-	7	=	2
=		=		=
17	-	10	=	7

7	-	2	=	5
+		+		+
9	-	6	=	3
=		=		=
16	-	8	=	8

9	-	6	=	3
-		-		+
4	+	2	=	6
=		=		=
5	+	4	=	9

3	+	7	=	10
+		-		+
9	-	5	=	4
=		=		=
12	+	2	=	14

Pg 36: Subtraction & addition (moderate)

5	+	4	=	9
+		-		+
8	-	2	=	6
=		=		=
13	+	2	=	15

6	+	7	=	13
+		-		+
8	-	3	=	5
=		=		=
14	+	4	=	18

9	+	8	=	17
-		-		-
2	-	4	=	6
=		=		=
7	+	4	=	11

7	+	8	=	15
-		-		-
2	+	4	=	6
=		=		=
5	+	4	=	9

8	+	9	=	17
+		-		+
7	-	4	=	3
=		=		=
15	+	5	=	20

8	-	6	=	2
+		-		+
3	+	4	=	7
=		=		=
11	-	2	=	9

Pg 37: Subtraction & addition (hard)

9	+	5	=	14
-		+		-
7	-	3	=	4
=		=		=
2	+	8	=	10

8	+	5	=	13
+		-		-
2	+	3	=	5
=		=		=
10	-	2	=	8

9	+	2	=	7
-		+		+
5	-	3	=	2
=		=		=
4	+	5	=	9

6	-	2	=	4
+		+		+
8	-	3	=	5
=		=		=
14	-	5	=	9

4	+	9	=	13
+		-		+
8	-	2	=	6
=		=		=
12	+	7	=	19

6	+	4	=	10
+		-		+
5	-	2	=	3
=		=		=
11	+	2	=	13

Pg 38: Subtraction & addition (harder)

63	+	51	=	114
+		-		+
50	-	46	=	4
=		=		=
113	+	5	=	118

89	+	84	=	173
+		-		+
92	-	27	=	65
=		=		=
181	+	57	=	238

83	+	79	=	162
-		-		-
61	-	62	=	123
=		=		=
22	+	17	=	39

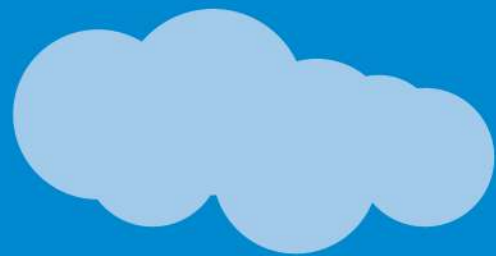
91	+	28	=	119
-		+		-
44		33	=	11
=		=		=
47	+	61	=	108

96	+	21	=	117
+		-		+
74	-	16	=	58
=		=		=
170	+	5	=	175

60	+	65	=	125
+		-		+
90	-	54	=	36
=		=		=
150	+	11	=	161

Pg 39: Number crossword

12	+	24	=	36				22
		÷		÷				+
8	-	4	=	4		55		23
x		=		=		÷		=
7		6		9	x	5	=	45
=						=		
56		20	-	9	=	11		3
		+		x				x
84	÷	12	=	7				13
		=		=				=
		32		63	-	27	=	36



$$7 \times 8 =$$

