# Meet the growth-mindset characters!

**Flo**

Flo is flexible and creative. She often with new methods to solve problems.



**Dexter**

Dexter is determined. When he makes a mistake he learns from it and tries again.

Can we do it differently?

Let's try again!

# Meet the growth-mindset characters!



**Astrid**

Astrid is brave and confident. She is not afraid to make mistakes.

I will share my ideas!

Is there a pattern?



**Ash**

Ash is curious and inquisitive. He loves to explore new concepts



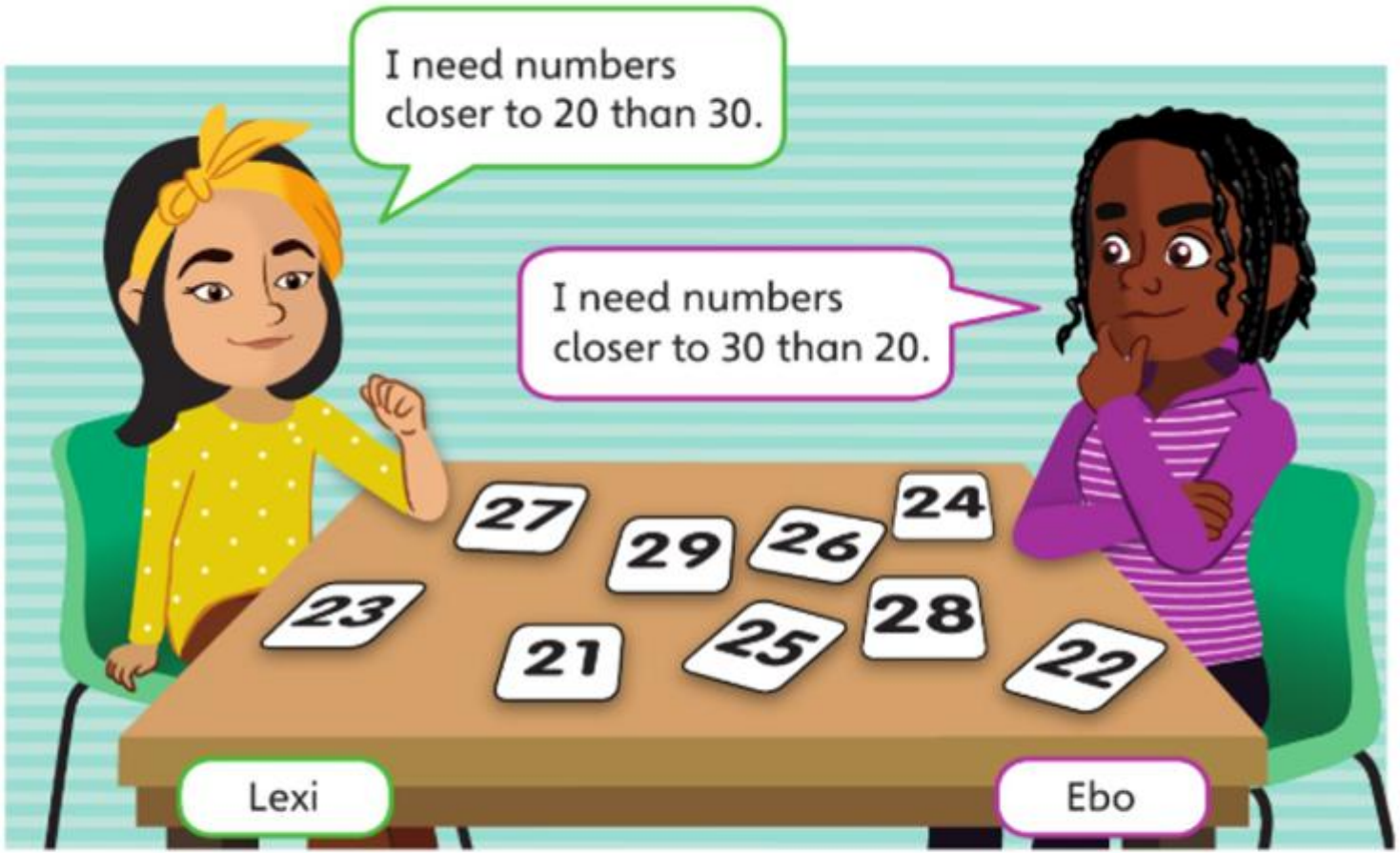
# Sparks

Sparks is helpful and supportive. He will remind you of things that may help you.



Each lesson starts with a DISCOVER page on the board to introduce the idea to get children immediately involved and thinking about the maths they need to use.

## Discover




**1** a) Which numbers are closer to 20?

Which numbers are closer to 30?

b) Round each number to the nearest multiple of 10.

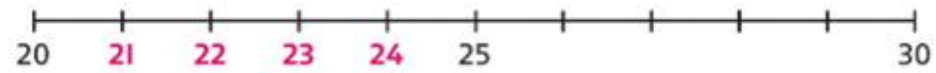
Next, the teacher will share how they would solve the problem. This introduces the main theme of PowerMaths lessons: I do – We do – You do.

The teacher shows how to answer the question, the teacher and the children work together to answer a similar question then the children have a go.

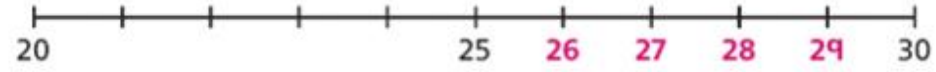
I do – We do – You do.

## Share

a) These numbers are closer to 20.



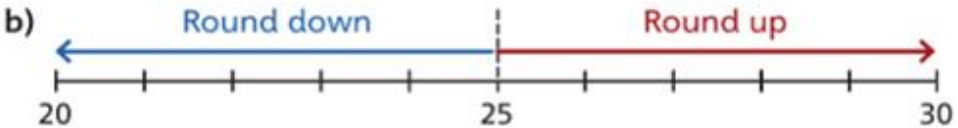

These numbers are closer to 30.



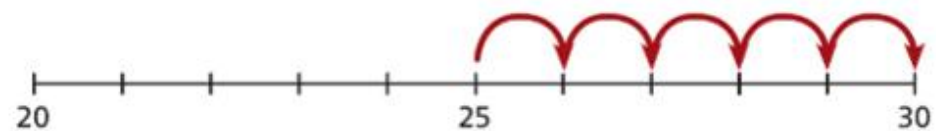



I would have to add 6 to 24 to reach 30, but subtract only 4 to reach 20.

b)




25 is exactly half-way between 20 and 30. It rounds up to 30.




If there are 5 or more 1s, you round up to the next 10.



The children will use whiteboards to have a go at solving this style of question still guided by the teacher.

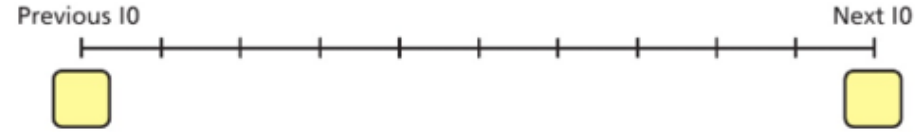
Whiteboards are great because there is so much less pressure than writing the "perfect" answer in a book – if it is wrong, children can rub it out and fix it. Also, they can do any kind of working out that may help them.

In lessons, children will have access to Base 10 apparatus, counters, cubes or anything else that may help them. Using practical apparatus makes learning so much more concrete before we move onto more abstract methods which are more in our heads. All children of all levels benefit from using practical apparatus first and we are moving away from counters and cubes being only for those who struggle with maths.

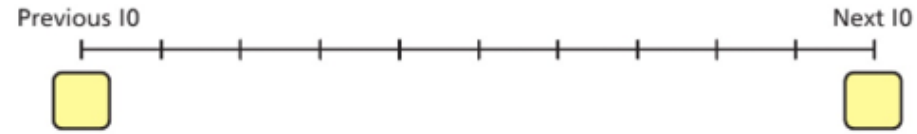
## Think together

**1** Round each number to the nearest 10.

a) 32




b) 167

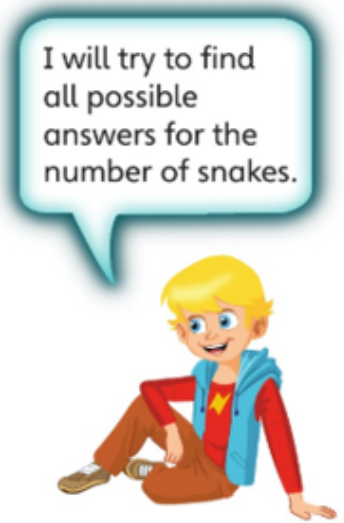



c) 1,278




**2** Complete the table.

| Animal | Number | Rounded to nearest 10 |
|---|---|---|
| birds | 176 | 180 |
| lizards | 48 | |
| fish | 131 | |
| monkeys | 40 | |
| snakes | | 60 |



# Round to the nearest 10

**1** Complete the sentences.




132 rounds to ☐ to the nearest 10.

137 rounds to ☐ to the nearest 10.

**2** Write the previous and next 10 for each number.

| | Previous ten | | Next ten | | Previous ten | | Next ten |
|---|---|---|---|---|---|---|---|
| a) | ☐ | 57 | ☐ | c) | ☐ | 136 | ☐ |
| b) | ☐ | 12 | ☐ | d) | ☐ | 502 | ☐ |

**3** Round the numbers to the nearest 10.

a) 18 to the nearest 10 is ☐.

b) 28 to the nearest 10 is ☐.

c) 81 to the nearest 10 is ☐.

d) 82 to the nearest 10 is ☐.

e) 124 to the nearest 10 is ☐.

f) 126 to the nearest 10 is ☐.

g) 368 to the nearest 10 is ☐.

h) 995 to the nearest 10 is ☐.

**4** a) Sort the numbers into the table.

| 15 | 41 | 78 | 102 | 209 | 333 | 457 | 765 | 902 | 981 |
|---|---|---|---|---|---|---|---|---|---|

| Round down to the nearest 10 | Round up to the nearest 10 |
|---|---|
| | |

b) Add two 4-digit numbers to each column.

**5** Round the numbers to the nearest 10.

| | | | | | | |
|---|---|---|---|---|---|---|
| a) | 76 | ☐ | 176 | ☐ | 376 | ☐ |
| b) | 1,024 | ☐ | 1,124 | ☐ | 1,324 | ☐ |
| c) | 1,715 | ☐ | 2,715 | ☐ | 3,715 | ☐ |
| d) | 1,704 | ☐ | 5,704 | ☐ | 8,704 | ☐ |

**6** Sam has three digit cards. He uses two to make each of the following numbers. What numbers does Sam make?

| 1 | 7 | 8 |
|---|---|---|

a) ☐☐ rounds to 80.

b) ☐☐ rounds to 80.

Children will then have a go at solving questions more independently but, even in this part of the lesson, children are encouraged to work together, discuss different ways of finding the best answers and thinking about how to check answers. These maths lessons are certainly not silent!

**The related facts from tables are also very important.**

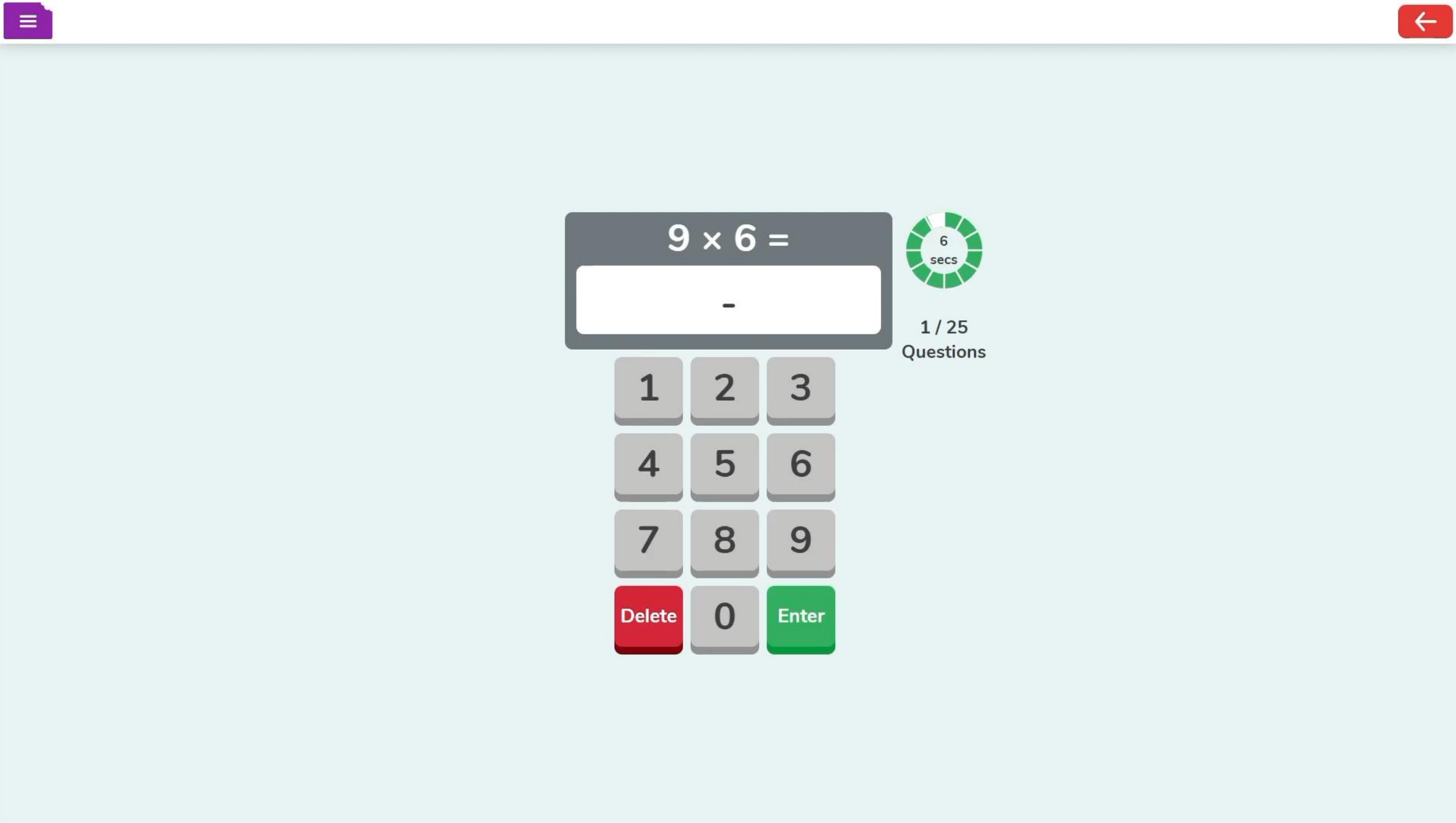
**If a child knows** $8 \times 3 = 24$

**then they also know that** $3 \times 8 = 24$

**and they also know that** $24 \div 3 = 8$

**AND they also know that** $24 \div 8 = 3$

**We also then use these skills to work out things like 80 x 3 = 240 and 240 ÷ 30 = 8.**


9 × 6 =
-
6
secs
1 / 25
Questions
1
2
3
4
5
6
7
8
9
Delete
0
Enter




## JAMMING

Take it easy




## GIG

Perform once a month



## GARAGE

Complete your heatmap



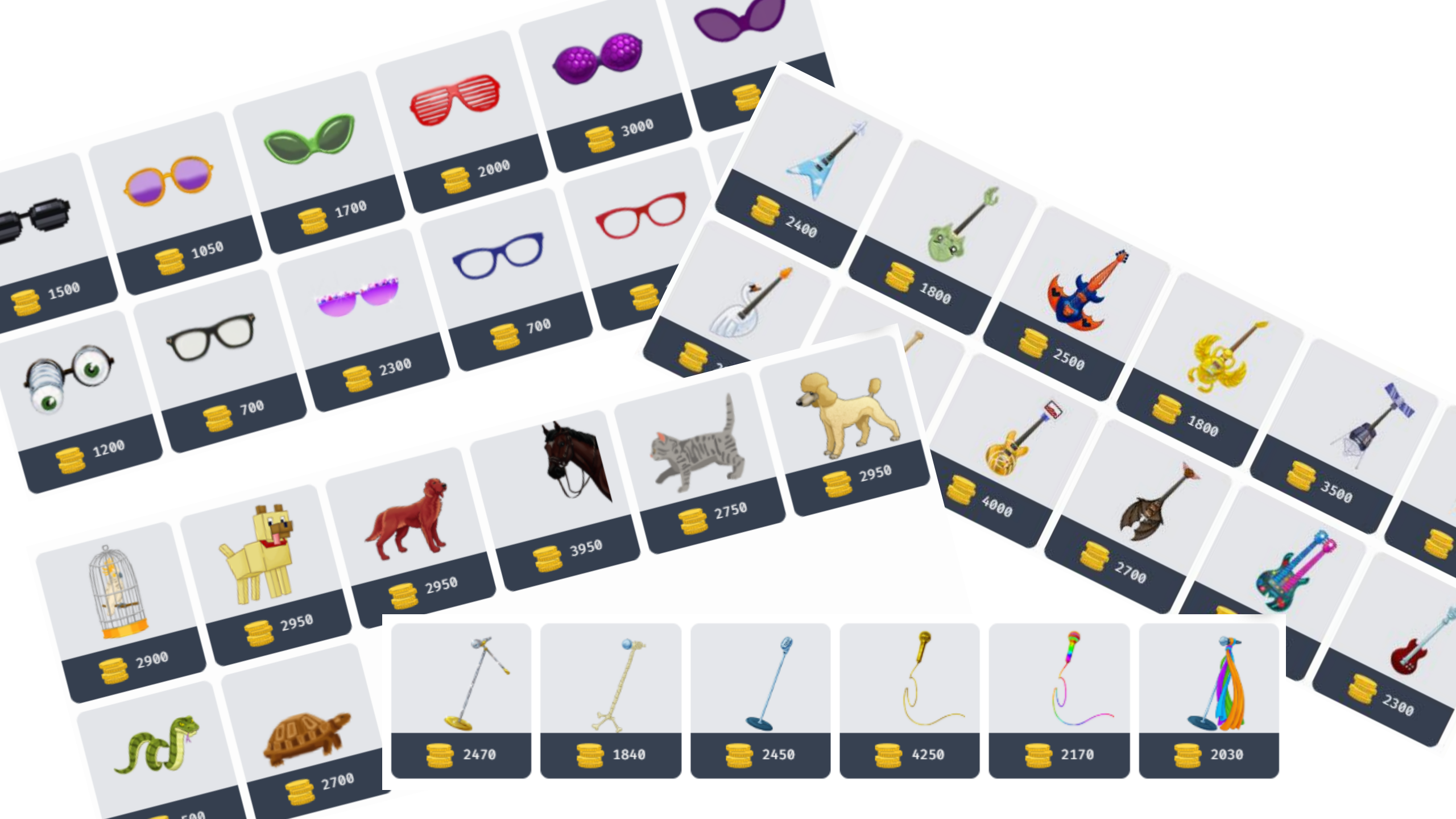
## STUDIO

Get a rock status



## SOUNDCHECK

Practise for MTC


1500
1050
1700
2000
3000
1200
700
2300
700
2400
1800
2500
1800
3500
2900
2950
2950
3950
2750
2950
4000
2700
2300
2700
2470
1840
2450
4250
2170
2030

# Monster Multiplication

You have 1 minute to answer as many questions as possible.
Unlock the stages to collect food to help your monster evolve!




Accurate Avocados




Active Artichokes




Motivated Mushrooms




Perfect Pears




Speedy Sweetcorn




Streaky Strawberries





Mr Batterham

Let's Play!

**Your monster is Level 1!**

Your monster collected: 9 food items

Next Level: 12 food items


PARLIAMENT BANK


FARM ANIMALS
MAGIC
FARM ANIMALS


THE KIRT CAFE


THE KIRT CAFE
POST OFFICE