



**Joyfulmathswithruth**

**Maths In ~~Motion~~**

 **The ocean**

**The sunlight zone**

**To join in please bring:**



**A deepish baking tray**

**Some water**

**A straw**

# Sunlight zone



**Sunlight zone (0 - 200m)**

**Twilight zone (200 - 1000m)**

**Midnight zone (1000 - 3000m)**

**The Abyss (3000 - 6000m)**

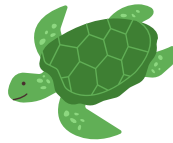
**The Trenches (6000 - 11000m)**



## Sunlight zone (0 - 200m)

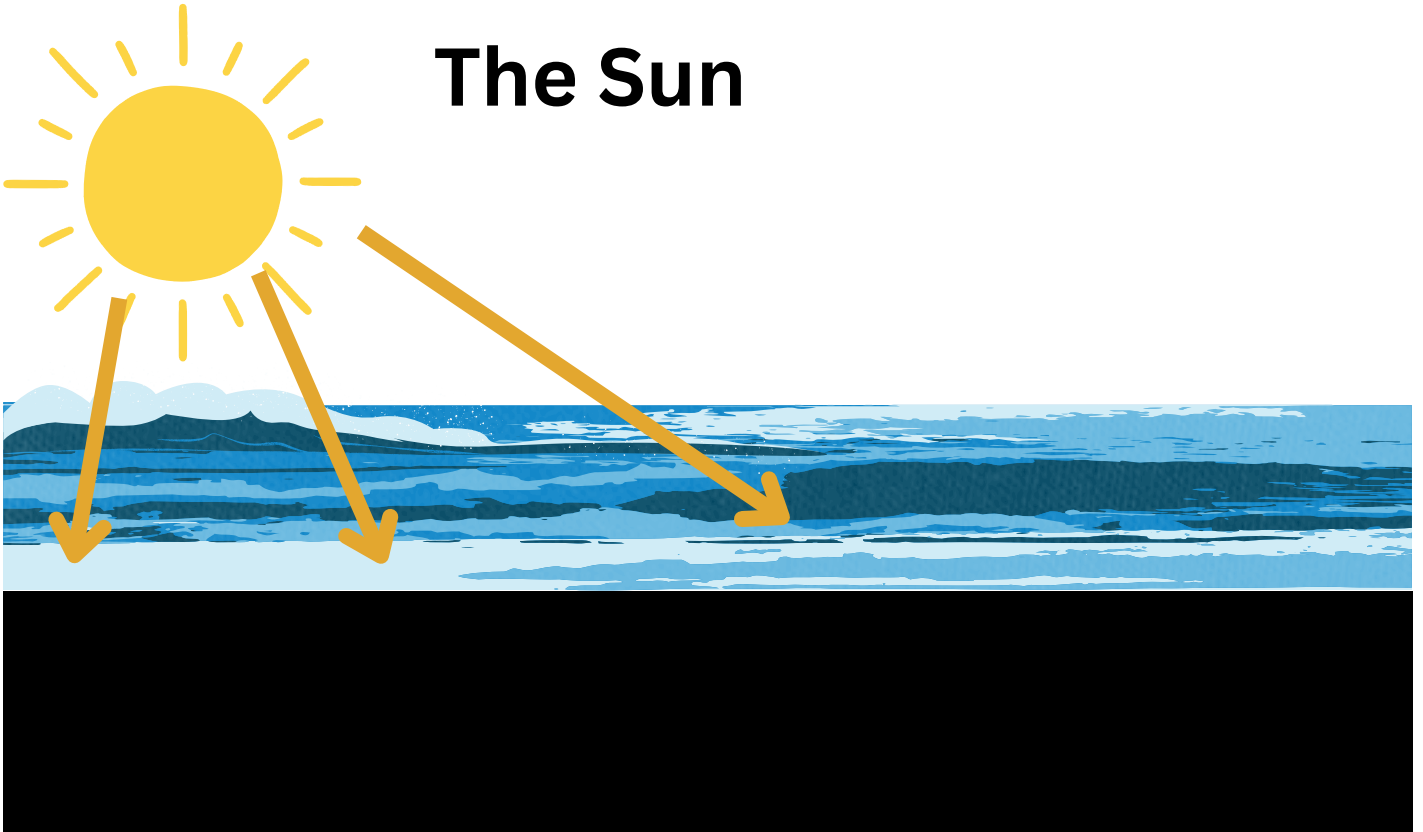


**90 % of all ocean  
life lives here**

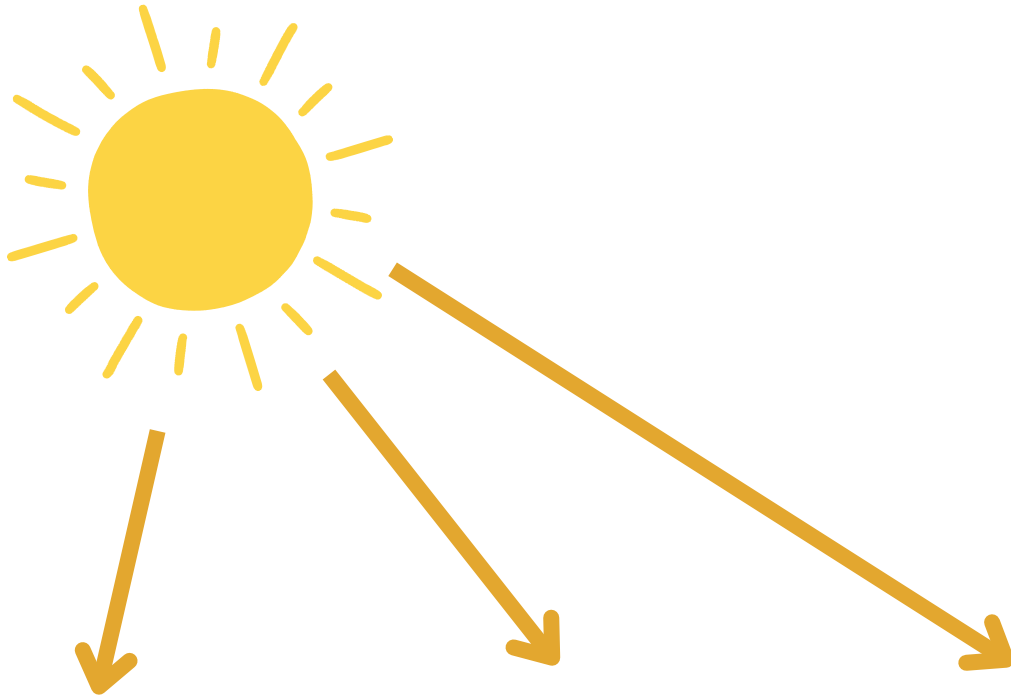


1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

# The Sun



# The Sun



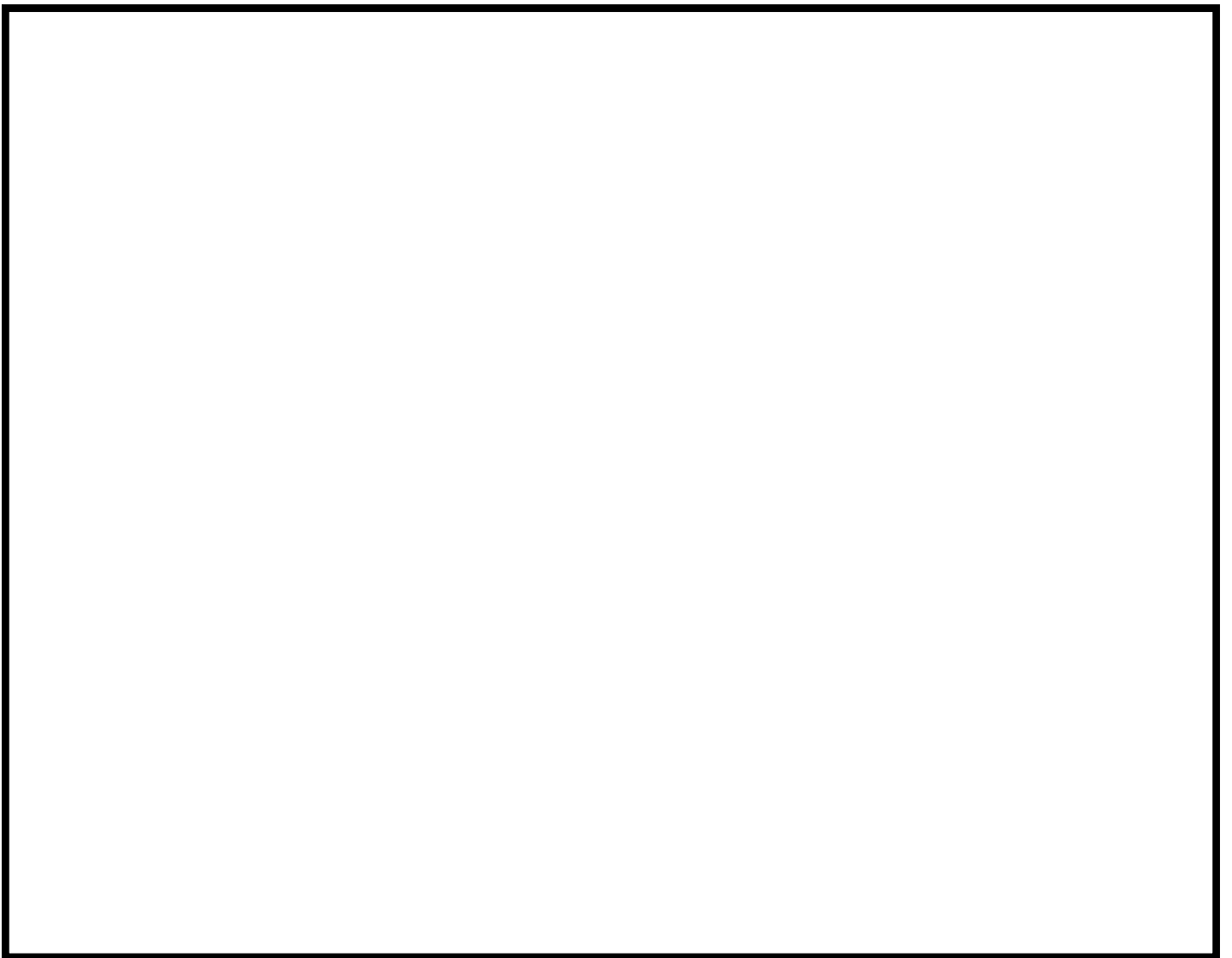
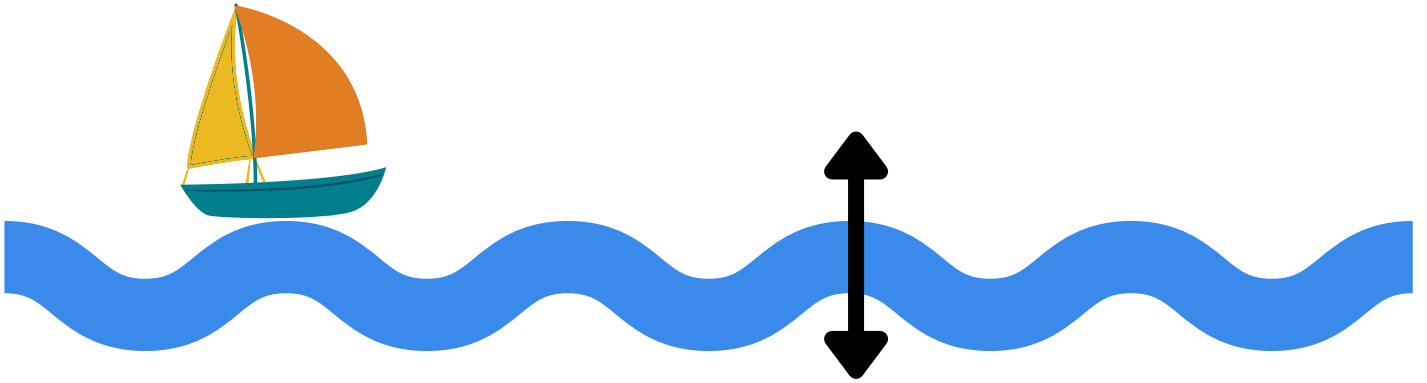


**What about  
waves?**



**Tap your tray  
What do you notice?**

# Transverse waves



# Experiment

Blow gently - what happens?

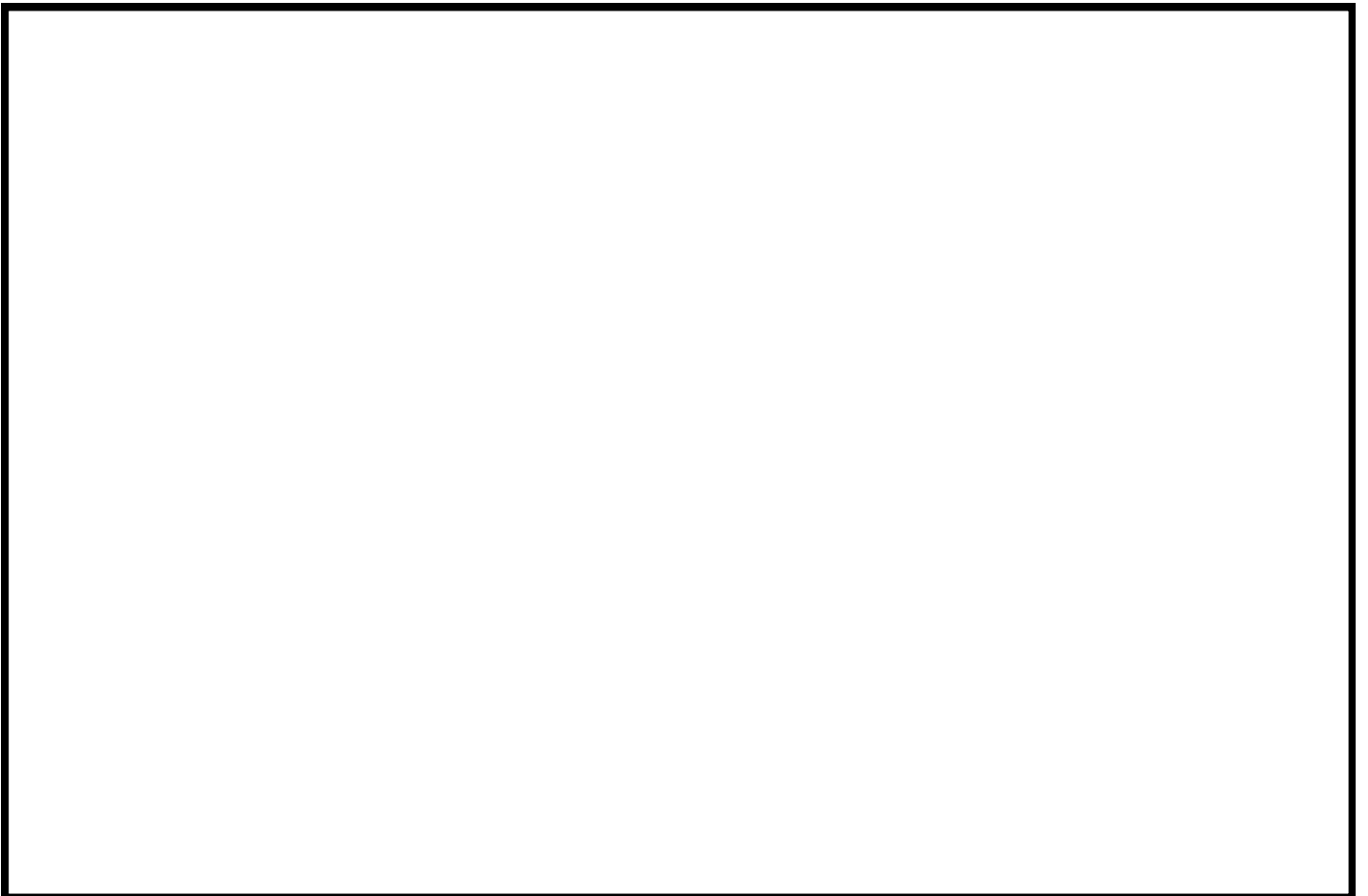


Blow harder - what happens?





The surface of  
the water  
being effected  
by the friction  
of the air



**What else causes  
waves?**



A large, empty rectangular box with a black border, intended for a student to write their answer to the question.

**1**

**25%**

**9 out  
of 10**

**90%**

2

Sine

Tranverse

Hand

**3**

**Wind**

**Vibration**

**Moon**

# Explore at home:

Where do you see percentages at home?

Have you looked at a food label?  
What do the %'s tell you?

Can you pour water and oil into a glass so  
that 10% is oil? How would you know?

# Explore at home:

Questions to think about:

Can % ever be more than 100%



If you have 2 glasses of the same juice, but one is bigger than the other - what does that mean about the % of sugar in each glass?



Try this estimation % task  
Percentage Estimation

