

Elephant Toothpaste



Introductions:

My name is Saanvi Shah
and I will be guiding you
today!

Your turn:

My name is [..] and my
favorite food is [..]



End results...

Elephant toothpaste



What we need...

- Hydrogen peroxide
- Dish soap
- Yeast
- Food coloring
- Bottle/container



What is hydrogen peroxide?



- ★ A clear liquid partly made of **water** and partly made of **oxygen**
- ★ Oxygen = air we breathe in



What is yeast?

- ★ Actually a fungus that feeds on sugary things
- ★ Used in a looooooot of baking! (like bread)



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

What happens?

Yeast: is actually a living fungus!

- Used in...

What does Yeast do?

- Speeds up processes by eating sugar
- Example: when baking bread, yeast eats up sugar and makes gas that causes it to rise



Quiz...

What does yeast in this experiment do?



Little Video:



Let's Start!

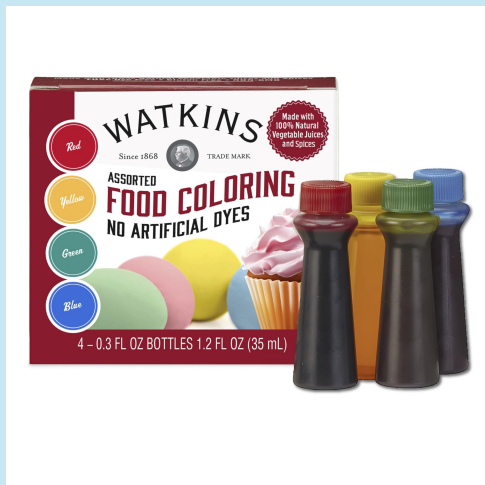


Step 1: pour $\frac{1}{2}$ cup
of H_2O_2 in the
bottle



Step 2: add a little
dish soap and mix

Let's Start!



Step 3: add food coloring and mix



Step 4: in a separate cup, add packet of yeast + 3 tbsp water

Let's Start!



Step 5: mix yeast
mixture + H_2O_2
mixture in bottle