



Prize Winner

Crystal Investigation

Year 3-4

Mikayla Berry-Smith

Grange Primary School



MY CRYSTAL

BY MIKAYLA BERRY-SMITH

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HYPOTHESIS

- IF I CAN CONTROL THE ENVIRONMENT MY SOLUTION IS IN I WILL GET A GOOD SIZED, SHARP EDGED, CLEAR CRYSTAL

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DAY 1

- I GOT ALL MY STUFF READY
- I LEARNT WHAT TO DO
- I MADE MY CRYSTAL SOLUTION
- WE MADE ANOTHER SOLUTION JUST IN CASE THE 1ST ONE DIDN'T WORK
- WE PUT THE 1ST ONE IN THE LAUNDRY AND THE 2ND ONE IN THE GARAGE
- I CHOSE THESE SPOTS BECAUSE I THOUGHT THERE WAS LESS TEMPERATURE VARIATION AND LESS AIR MOVEMENT
- IT DID NOTHING THE FIRST DAY

How to make the Crystal solution

1. get the Crystal alum (I got it from school)
2. get a cup out (I got a smallish one)
3. pour hot water into the cup
4. slowly add the alum and stir until it's dissolved (I did 1 tsp at a time)
5. put your cup in a safe place, cover it with a paper towel to prevent dust from getting into it (keep the cup in a place that the temperature stays the same)



DAY 2/3

- WHEN WE CHECKED ON THE CRYSTAL SOLUTIONS, THE LAUNDRY SOLUTION HAD SMALL CRYSTAL SEEDS FORMING AT THE BOTTOM OF THE CUP. AND THE GARAGE ONE APPEARED TO HAVE SOME UNDISSOLVED ALUM WHICH BEGAN TO FORM CRYSTALS ON THE BOTTOM OF THE CUP IN A SMALL LAYER, LIKE A BLANKET.

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DAY 4/5

- WE WE'RE STILL WAITING FOR THE SOLUTION TO GROW
- IT LOOKED A LITTLE BIT DIFFERENT THAN BEFORE
- THE LAUNDRY SOLUTION APPEARED TO HAVE 3 SEEDS FORMING
- THE GARAGE SOLUTION APPEARED TO HAVE A BED OF CRYSTAL SEEDS FORMING

DAY 6/7

- THE SOLUTION STARTED TO GROW MORE
- THE ONES IN THE LAUNDRY GREW THE BIGGEST
- THE ONES IN THE GARAGE GREW TO A GOOD SIZE TOO
- ONE OF THE SEEDS FROM THE LAUNDRY GREW TO ABOUT AS BIG AS MY LITTLE FINGER
- WE LEFT THEM ALONE FOR ANOTHER COUPLE OF DAYS

How to make the main crystal solution

1. get the Crystal seed (from the Crystal solution)
2. pour the same water into a new cup
3. put 1 bit more solution in the same cup (I did 3 tsp)
4. stir the alum in
5. get the Crystal seed and put it in the cup
6. put it in a safe place and put paper over it

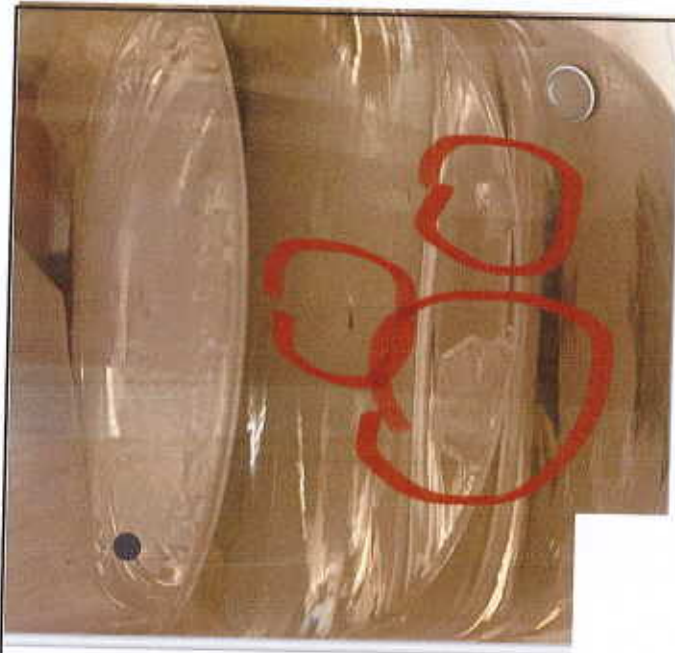




Day 2/3



Day 4/5



Day 6/7

The Laundry

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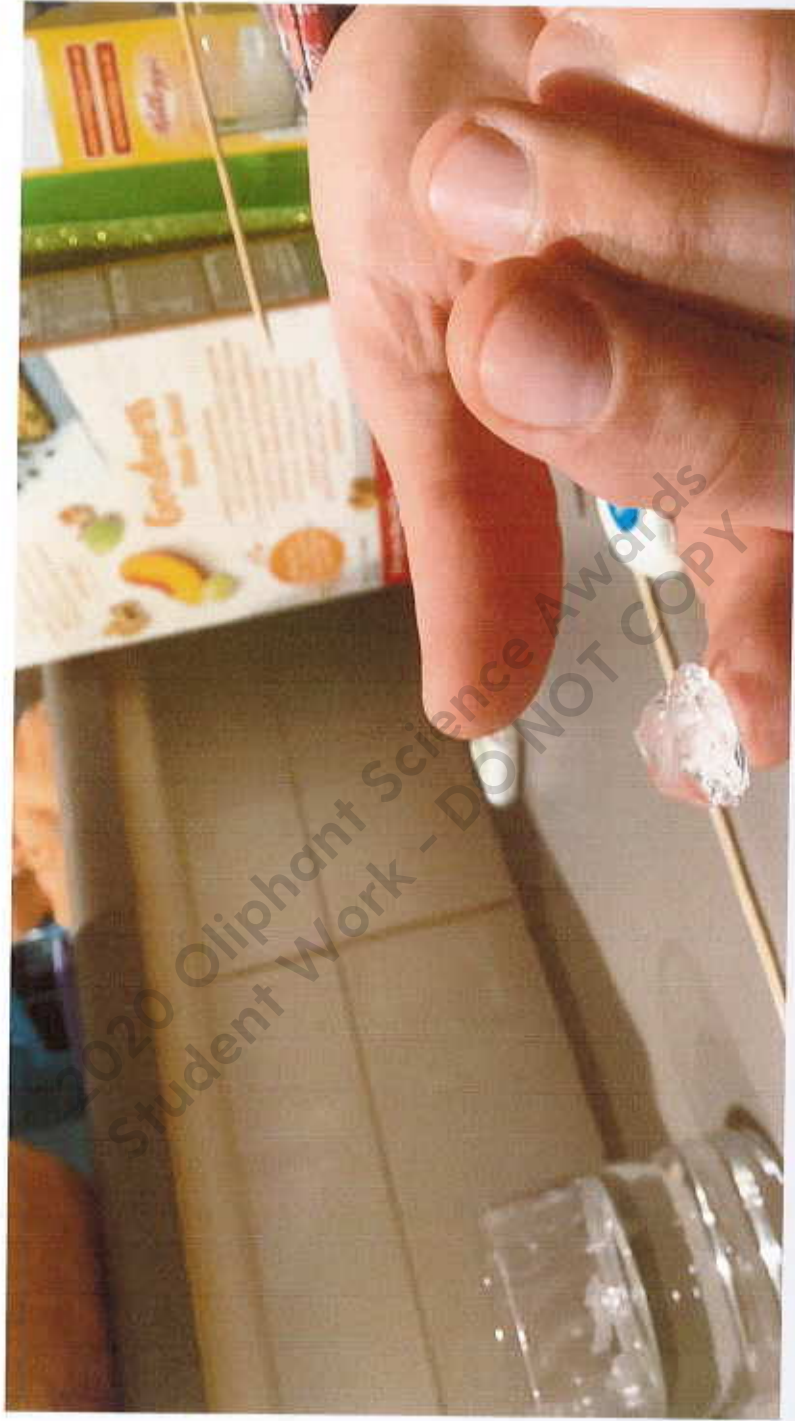
Day 2/3

Day 4/5

Day 6/7

THE GARDEN

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WEEK 2

- WE CHECKED THE CRYSTAL
- WE DIDN'T THINK IT WAS GOING TO GROW ANY BIGGER SO WE DECIDED TO USE THE 2 BIGGEST SEEDS TO PUT IT IN A NEW SOLUTION TO ENCOURAGE FURTHER GROWTH
- I CHOOSE THE 2 BIGGEST CRYSTALS FROM THE LAUNDRY SOLUTION
- WE TOOK THEM OUT AND WITH MY DADS HELP WE PUT THEM IN A NEW SOLUTION
- WE DISSOLVED THE CRYSTALS THAT WE DIDN'T USE TO MAKE ANOTHER SOLUTION
- I CHOOSE TO PUT THEM BOTH IN THE LAUNDRY BECAUSE THAT WAS THE PLACE THAT SEEMED TO GET THE MOST GROWTH



MY DAD HAD TROUBLE TYING THE BIGGEST
SEED BECAUSE IT KEPT ON FALLING OUT

THE OTHER SEED HE WAS ABLE TO HANG IT
IN THE NEW SOLUTION

WE USED TOOTH FLOSS TO TIE IT TO THE
SKEWER AND CRYSTAL AND WE HUNG IT IN
THE SOLUTION

WEEK 2 DAY 3/4

- UNFORTUNATELY THE BIGGER CRYSTAL KEPT ON FALLING OFF SO WE JUST LEFT IT
- THE BIGGER CRYSTAL SAT ON THE FLOOR OF THE CUP AND SLOWLY DISSOLVED WHILE THE OTHER ONE GOT A LITTLE BIT BIGGER

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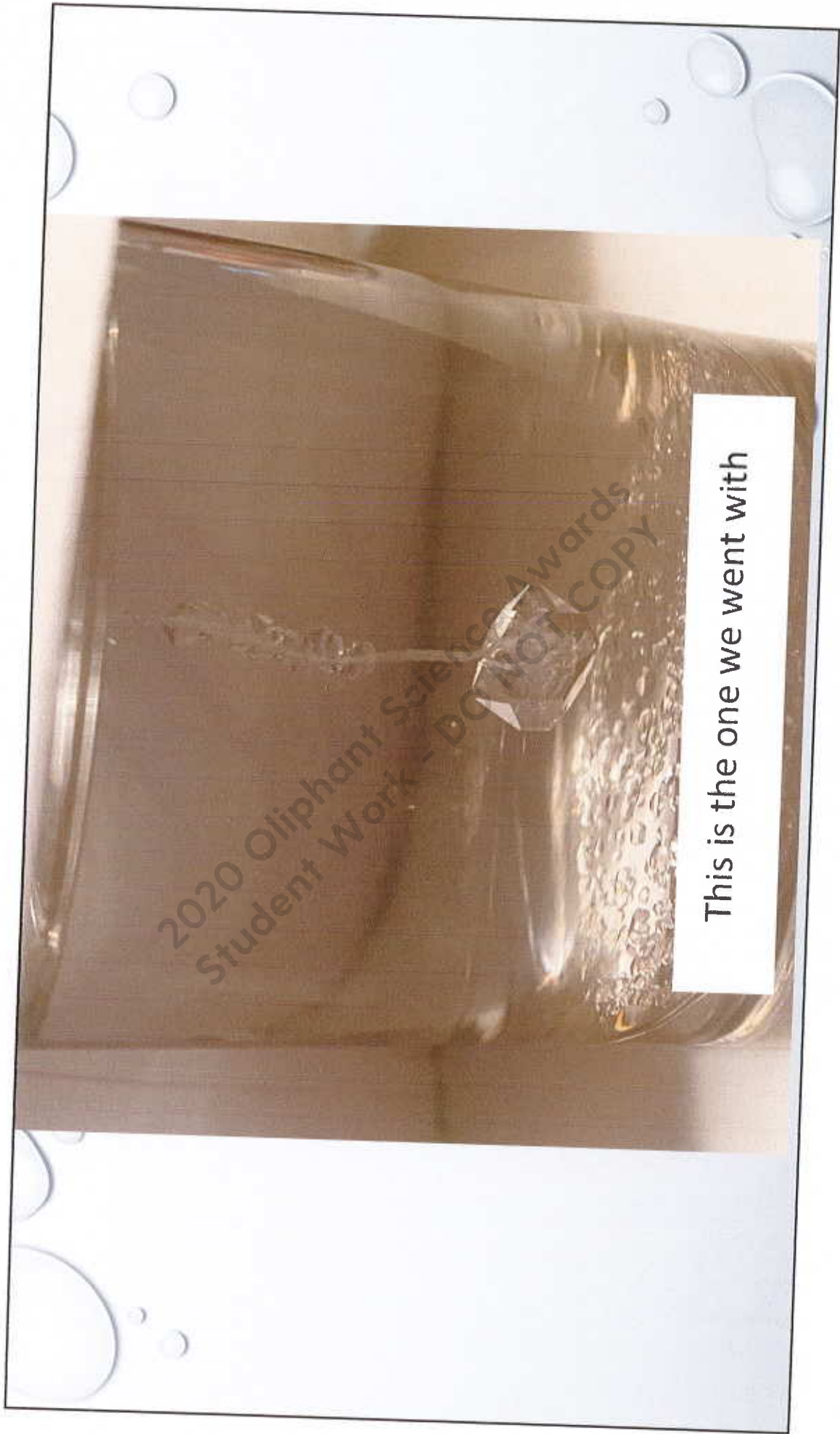


This is from the garage solution

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WEEK 2 DURING THE WEEK

- WE LEFT IT GROW FOR A COUPLE OF DAYS. IT GREW A BED OF SEEDS ON THE BOTTOM JUST LIKE THE GARAGE ONE DID.
- WE THOUGHT IT WOULDN'T GET MUCH BIGGER. IT ALSO GREW A NEW CRYSTAL FORMATION UP THE STRING
- WE WERE WORRIED THE CRYSTAL WOULD DISSOLVE LIKE THE OTHER SEED DID SO WE TOOK IT OUT AND Poured THE WATER OUT AND PUT THE CRYSTAL BACK IN THE CUP WITHOUT WATER



This is the one we went with

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THE RESULT

- EVEN THOUGH IT WAS HARD WE DID IT
- BY WE I MEAN ME AND MY DAD
- MY DAD HELPED ME WITH IT A LOT
- FOR MY FIRST CRYSTAL I'VE EVER MADE I THINK IT'S A GOOD SIZE, SHARPED EDGED, CLEAR CRYSTAL
- FROM WHAT I OBSERVED I THINK THE LAUNDRY WAS THE BEST PLACE TO PUT THE CRYSTAL BECAUSE IT HAD A GOOD STABLE TEMPERATURE AND THE CRYSTAL GREW GREAT, COMPARED TO THE GARAGE SOLUTION. SO I THINK I ANSWERED MY HYPOTHESIS QUESTION