

JAN 2018



SCIENCE COMICS



PRICELESS
IS
KNOWLEDGE

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#1
ISSUE



BY NC SA
CC BY NC SA



CREDITS & NOTICES

THERE ARE RESOURCES AVAILABLE FOR PARENTS, TEACHERS, AND STUDENTS WHICH ACCOMPANY THIS BOOK:

- * PDF - <http://bit.ly/2COOrNit>
- * PRINTABLE BOOKLET - <http://bit.ly/2CESfYh>
- * PRESENTATION - <http://bit.ly/2CO9cTL>
- * WIKI - <http://bit.ly/2Fgb323>
- * LOOK AT BOTTOM OF EXPERIMENTS FOR MORE INFO.

FONTS:

- * SF SLAPSTICK COMIC
- * MINSTREL POSTER TWO NF
- * Skia

COMIC PAGE LAYOUTS ARE COURTESY
WWW.COMICBOOKPAPER.COM

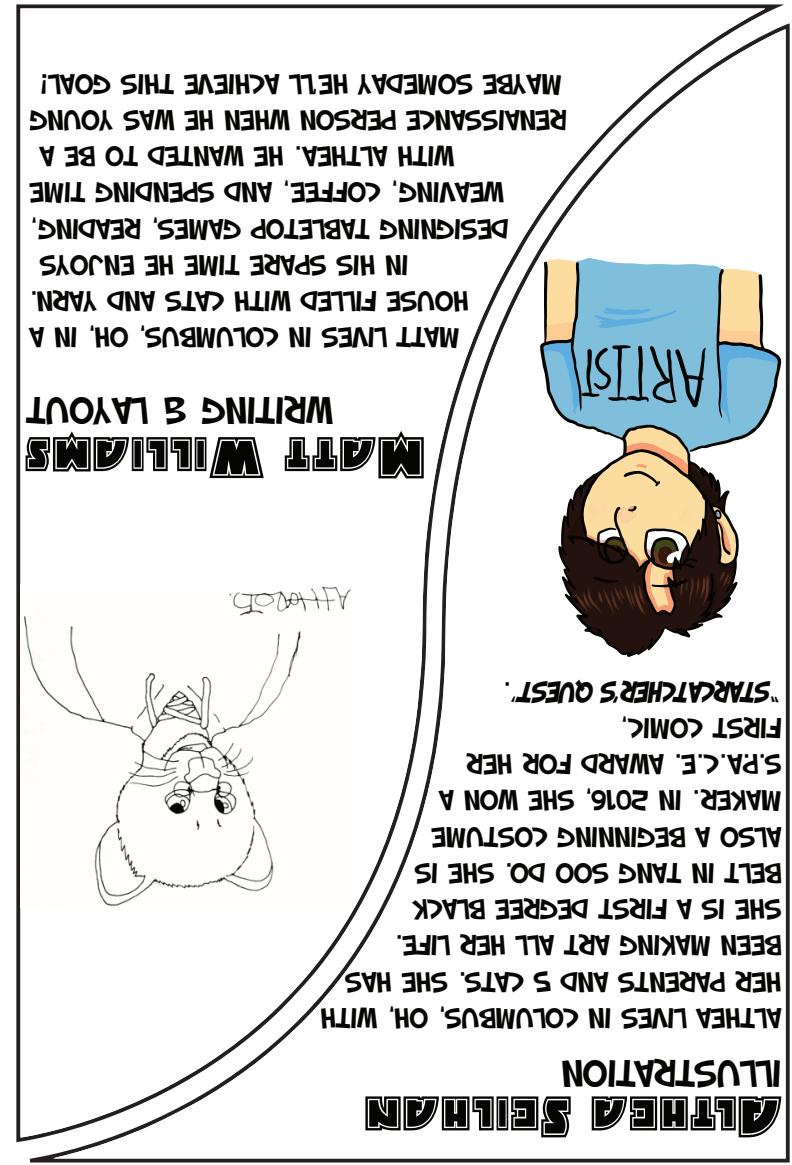
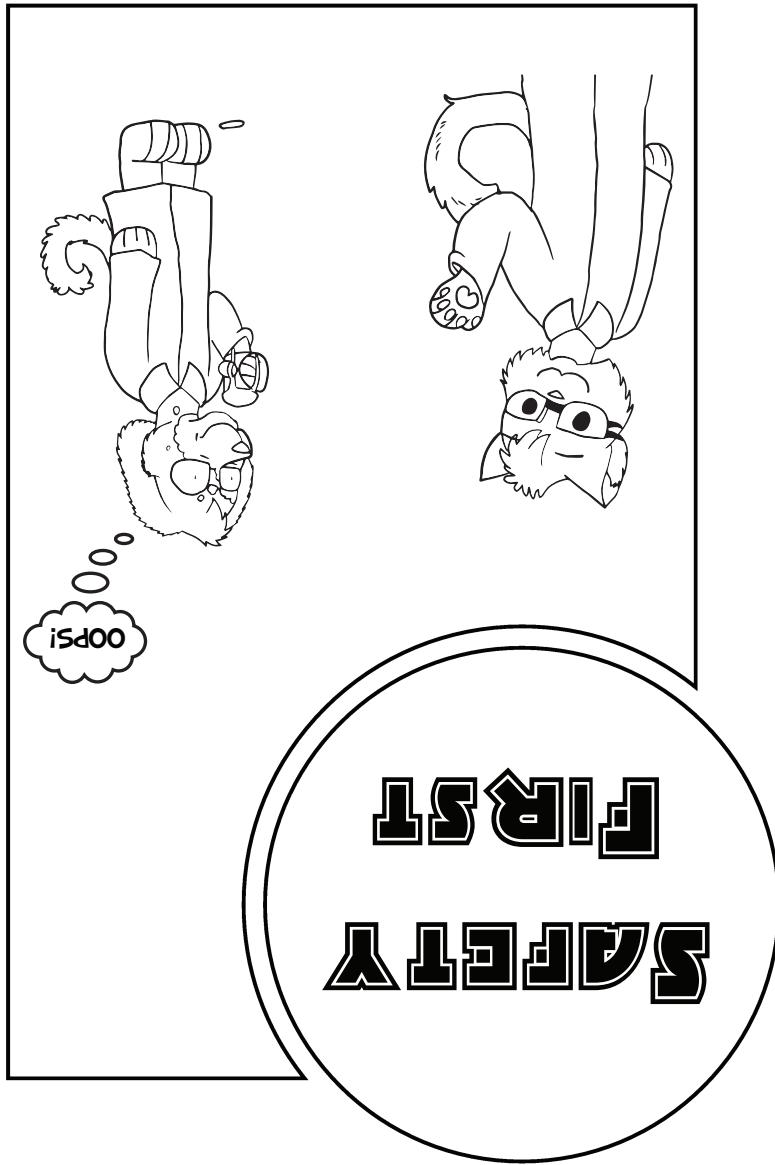
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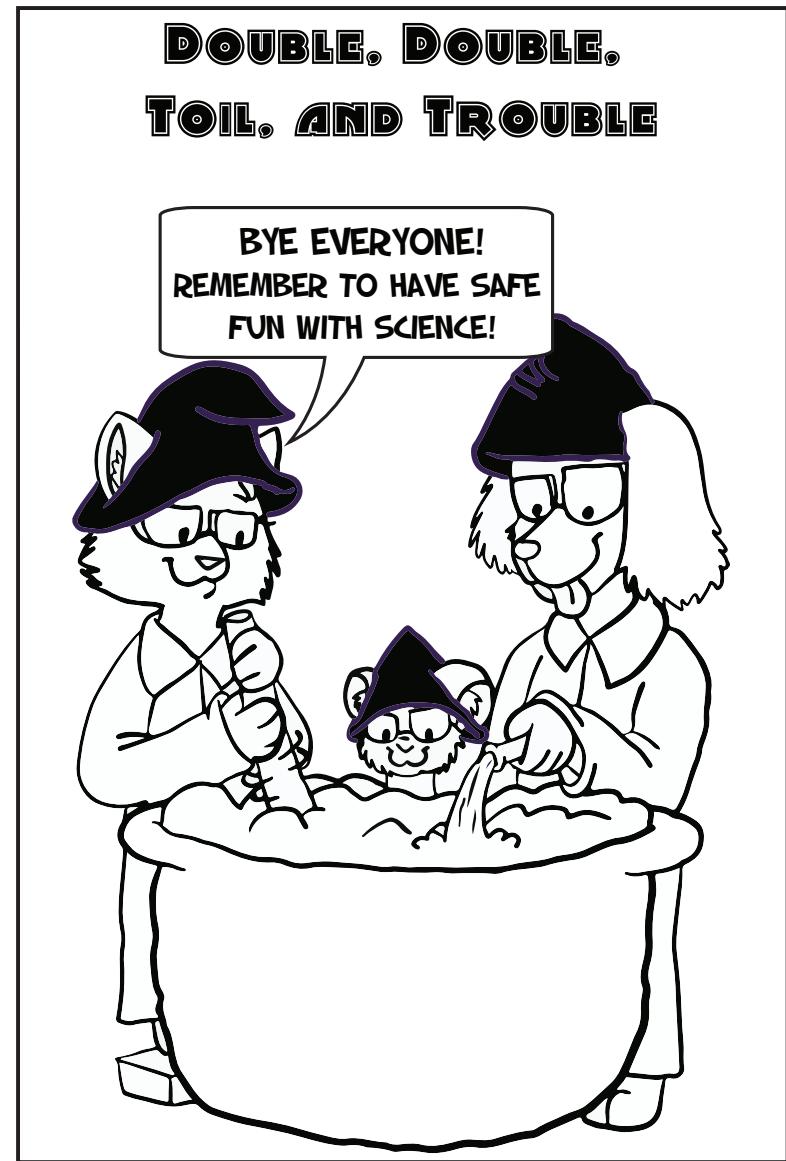


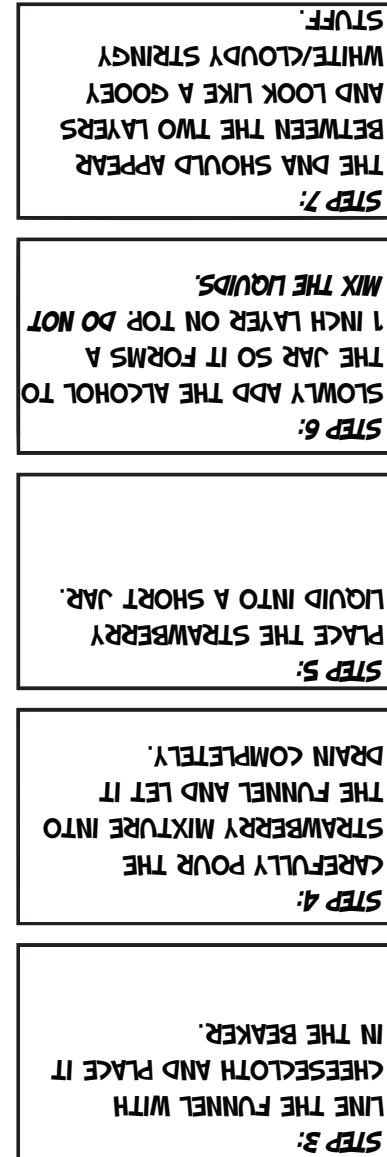
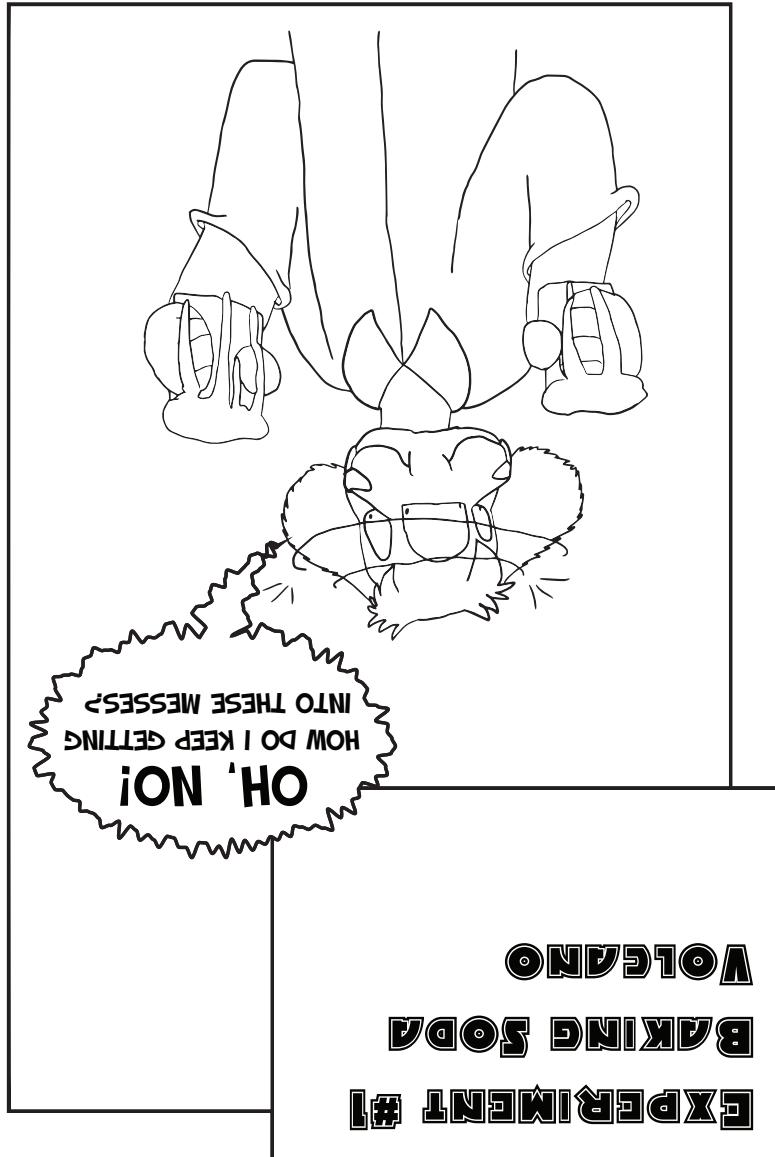
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FOR MORE INFORMATION SEE <http://bit.ly/2mbpkEy>





THE FIZZING IS DUE TO CARBON DIOXIDE BEING RELEASED WHEN THE VINEGAR (ACID) AND BAKING SODA (BASE) REACT AND NEUTRALIZE EACH OTHER. CARBON DIOXIDE IS WHAT MAKES SODA FIZZY, TOO!



INGREDIENTS:
1 QT VINEGAR
4 TABLESPOONS BAKING SODA
(IT MIGHT SEEM LIKE A LOT BUT IT IS USED LATER)

STEP 1:
POUR THE VINEGAR INTO A LARGE PAN & PLACE THE PAN INTO SOMETHING WHICH WILL CATCH ANY OVERFLOW

STEP 2:
SLOWLY ADD THE BAKING SODA TO THE VINEGAR.
IF YOU DON'T DO IT CAREFULLY, IT WILL OVERFLOW

STEP 3:
KEEP THE RESULTS, THEY'LL BE USED IN A LATER EXPERIMENT. (HOT SNOW)

TIP:
TRY USING DIFFERENT AMOUNTS OF VINEGAR AND BAKING SODA. WHICH MAKES THE BIGGEST REACTION?

FOR MORE INFORMATION SEE <http://bit.ly/2AE6oDy>



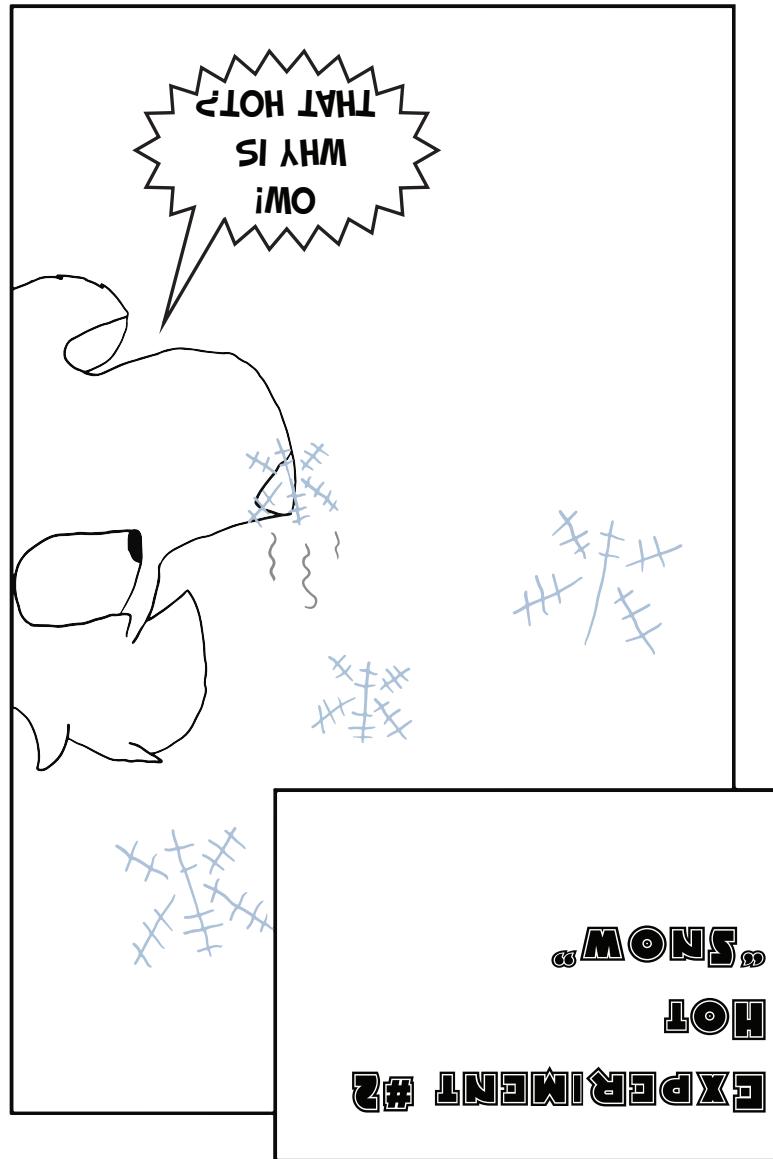
EQUIPMENT:
* ZIPLOCK BAG
* FUNNEL
* CHEESECLOTH
* 2 SMALL JARS OR BEAKERS
* EYE DROPPER OR PIPETTE
* TOOTHPICK OR SKEWER

INGREDIENTS:
* 3 STRAWBERRIES
* 1 TBS DISH SOAP
* 1/2 TSP SALT
* 1/3 CUP WATER
* RUBBING ALCOHOL PLACED IN FREEZER

STEP 1:
REMOVE STEMS FROM STRAWBERRIES AND PLACE IN THE ZIPLOCK BAG. CLOSE THE BAG AND SQUEEZE FOR TWO MINUTES.

STEP 2:
IN A JAR ADD THE SALT AND DISH SOAP TO THE WATER AND MIX IT WELL.

FOR MORE INFORMATION SEE <http://bit.ly/2FbxQvH>



EXOTHERMIC
REACTIONS
GIVE OFF
HEAT.



PRECIPITATES
"FALL"
OUT OF A
SOLUTION



SETUP:

TAKE THE RESULTS FROM
THE BAKING SODA VOLCANO
AND PLACE IN A PAN.

STEP #1:

CAREFULLY HEAT UNTIL ONLY
10% IS LEFT OR YOU BEGIN
TO SEE CRYSTALS FORMING
AROUND THE EDGE OF THE
PAN.

STEP #2:

COOL IN A PLACE WHERE IT
WON'T BE JOSTLED OR
DISTURBED. IF IT IS, YOU CAN
REHEAT IT UNTIL THE
CRYSTALS DISSOLVE.

STEP #3:

CAREFULLY POUR ONTO A
PLATE. YOU SHOULD SEE IT
START TO CRYSTALIZE.
WARNING: THEY ARE HOT!!!

NOTE:

YOU CAN REHEAT THE
SOLUTION TO DISSOLVE
THE CRYSTALS SO YOU
CAN DO IT AGAIN!

FOR MORE INFORMATION SEE <http://bit.ly/2D29sMj>





FOR MORE INFORMATION SEE <http://bit.ly/2CMuQyz>

ACID DYES ALSO COLOR NYLON. YOU CAN GET NEAT EFFECTS IF YOU USE A YARN WHICH IS A BLEND WITH ACRYLIC OR COTTON.

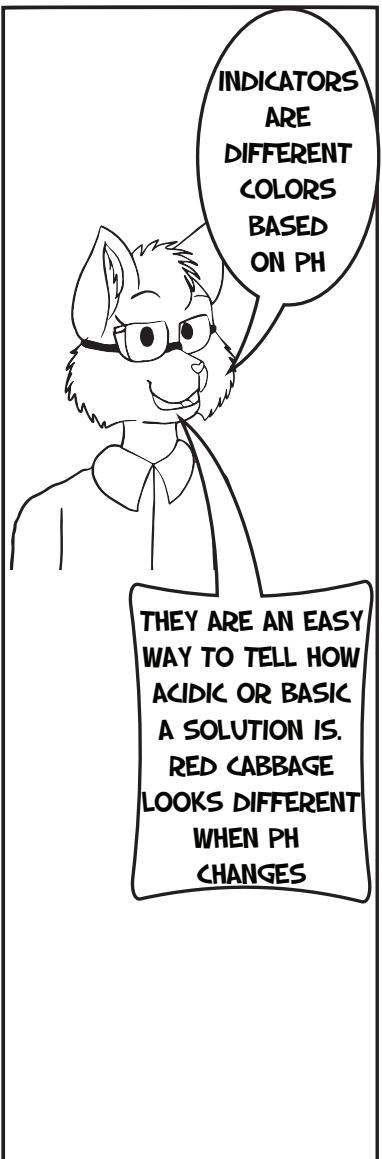
REPEAT UNTIL THE WATER IS CLEAR AND THE COLOR IS REST FOR ONE MINUTE. MICROWAVE FOR 2 MINUTES. STEP 3:

SEPARATE THE WOOL INTO THIRDS. PLACE ONE IN EACH CONTAINER. MAKE SURE THAT THE WOOL IS SOAKED AND FULLY IMMERSED. STEP 2:

CAREFULLY MIX THE PACKETS WITH WATER INTO THE CONTAINERS. STEP 1:

MICROWAVE SAFE BOWLS 3 JARS (MASSON JARS) OR 3 PACKETS (UNSWEETENED) OF DRINK MIX 3 OZ WHITE WOOL INGREDIENTS:



**INGREDIENTS:**

3 CABBAGE LEAVES
VINEGAR
BAKING SODA

STEP 1:

BOIL THE CABBAGE LEAVES
UNTIL SOFT. REMOVE THE
LEAVES AND RESERVE THE
LIQUID.

STEP 2:

ADD VINEGAR TO ONE LEAF
AND BAKING SODA TO
ANOTHER. IS THERE A
DIFFERENCE?

STEP 3:

TO THE REMAINING LEAF,
FIRST ADD VINEGAR AND
THEN BAKING SODA. WHAT DO
YOU NOTICE ABOUT THE
COLOR?

STEP 4:

ADD VINEGAR TO THE LIQUID.
DOES IT CHANGE COLOR?
ADD BAKING SODA. WHAT
HAPPENS? IS THE COLOR AS
BRIGHT AS THE LEAVES?

FOR MORE INFORMATION SEE <http://bit.ly/2m7Lx63>

EXPERIMENT #4**KOOL-AID
DYING**

**I HOPE
IT WASHES
OUT!!!!**

