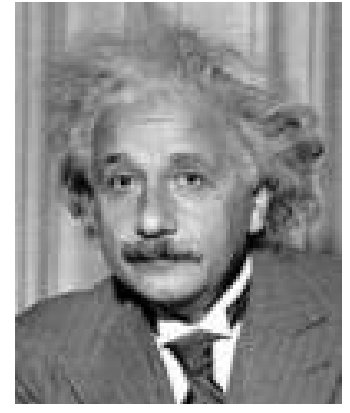




Sir Isaac Newton



Louis Pasteur



Albert Einstein

A SCIENCE Winter Inquiry Land

Kindergarten

Winter 2011-2012



Miami-Dade County Public Schools
Curriculum & Instruction

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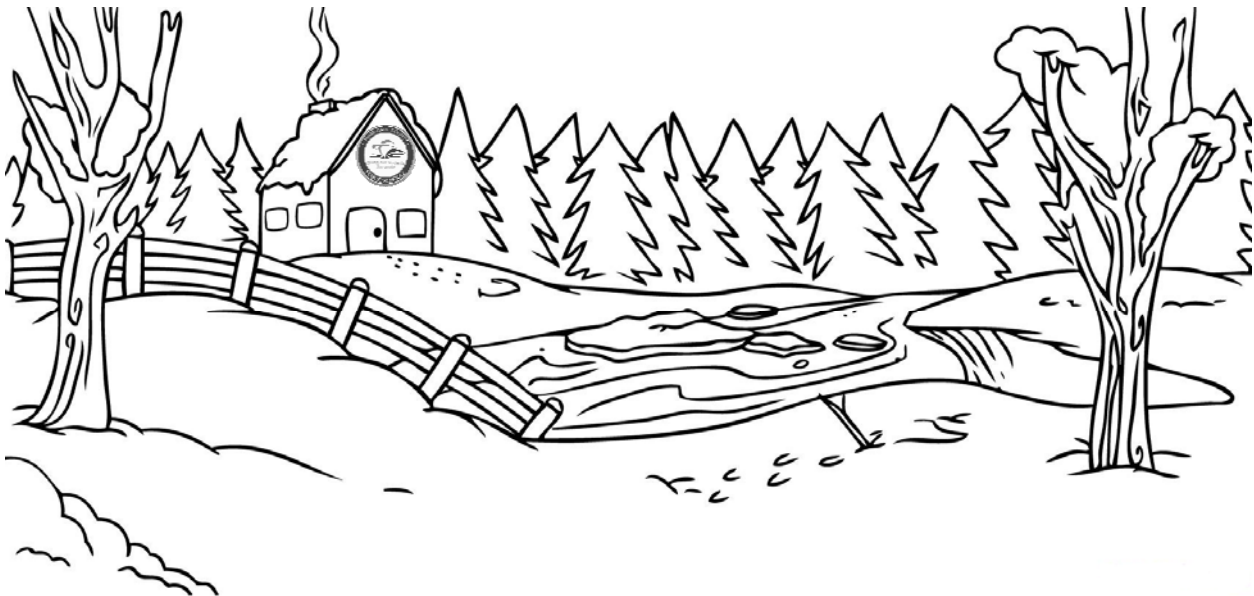
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WELCOME TO A SCIENCE WINTER INQUIRY LAND

The activities and reading passages in this packet were selected to allow young people to experience the relevancy of science in a fun and engaging way. As they navigate through these activities, they will realize that science is not limited to the classroom but that it is in their everyday lives. Science can be done away from school and can explain many of the phenomena encountered in life. Additionally, each activity addresses a specific Next Generation Sunshine State Standards benchmark. Targeted benchmarks are identified at the end of each activity.

Included as part of this packet, is a link to the Miami-Dade County Public Schools Student Portal. Log on to this site and go to Links to Learning for additional online activities. These online activities are supplemental and, as such, are not to be assigned or graded. All online activities are provided as a resource to both parents and students to engage learning using technology. Please log on just as you do at your school.

<http://www.dadeschools.net/students.asp>

Enjoy!

Activities

Children learn by doing, by trying new ideas and challenging old ones. This doesn't just happen in school. You can help your children learn by providing them with safe, interesting learning experiences in a supportive atmosphere.

The activities that follow are designed for you to use with your child at home and in the community. The activities are intended to show your child that science plays a part in many everyday activities and that it is used in many places and environments. They also show that learning science doesn't require expensive equipment and complicated experiments.

Safety First

Read through each activity before you try it with your child. Adult supervision is important especially with any of the activities that involve heat, chemicals or sharp instruments.

Also make sure that your child understands any safety precautions that may be necessary for these—or any—science activities. In particular, you should:

- Teach your child not to taste anything without your supervision;
- Insist that he/she wear goggles whenever something could splash, burn, or shatter and endanger his eyes;
- Teach them to follow warnings on manufacturers' labels and instructions for toys and science kits;
- Keep toxic or other dangerous substances out of the reach of your child;
- Teach them what he can do to avoid accidents; and
- Teach them what to do if an accident occurs.

<http://www.ed.gov/pubs/parents/Science/Home.html>



Who Were They?

Sir Isaac Newton was a physicist, mathematician, astronomer, alchemist, and natural philosopher. He is best known for his explanation of Universal Gravitation and the three laws of motion. He was also able to prove that the reason of both the motion of objects on Earth and of celestial bodies is controlled by the same Neutral laws. These findings would make a revolutionary change in the development of science. His invention of the reflecting telescope was his great contribution in optics.

Louis Pasteur was a French chemist and microbiologists and one of the most famous and influential contributors in medical science. He is remembered for his remarkable breakthroughs in the causes and preventions of diseases supported by his experiments on the germ theory of disease. He also created the first vaccine for rabies and anthrax. Pasteur also invented the method of “pasteurization”, where harmful microbes are stopped from causing sickness in food.

Albert Einstein is the greatest scientist of the twentieth century and the most notable physicist of all time. He was born in Germany but eventually migrated to America to take a teaching position at Princeton University. It is told that he had a learning disability in his childhood. He could not talk till he was three and could not read till he was eight. Despite such problems, in 1921 he became the noble prize winner for his contributions to Physics. His *Theory of Relativity* is considered a revolutionary development of Physics.

Kitchen Stuff

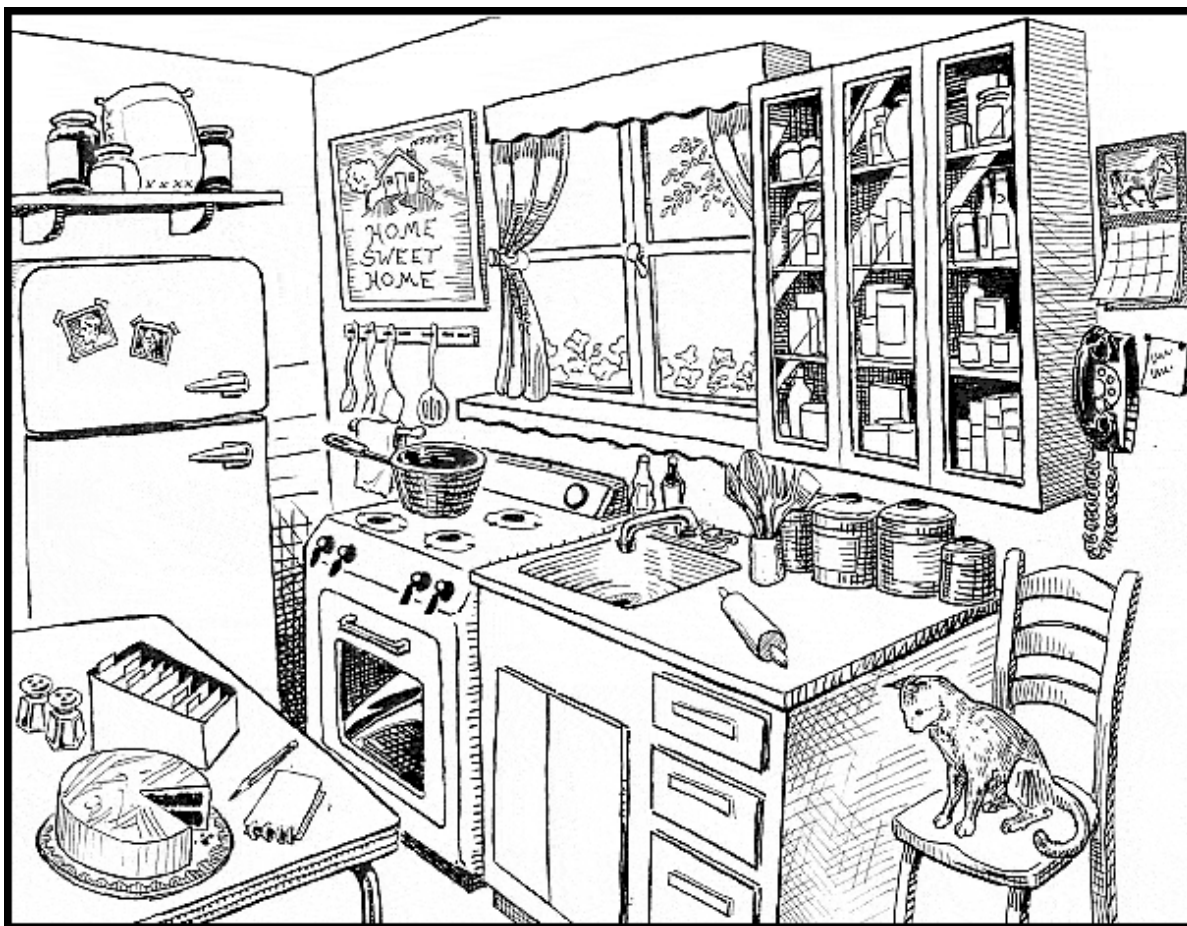
What You Need

Find any, non-breakable objects in the kitchen that match the descriptions below.

What to Do

Together with your child:

- Collect different kitchen objects.
- Group them according to their size, shape and colors.
- count them
- Have your child draw a picture of each group (you may need more than one piece of paper to do this)

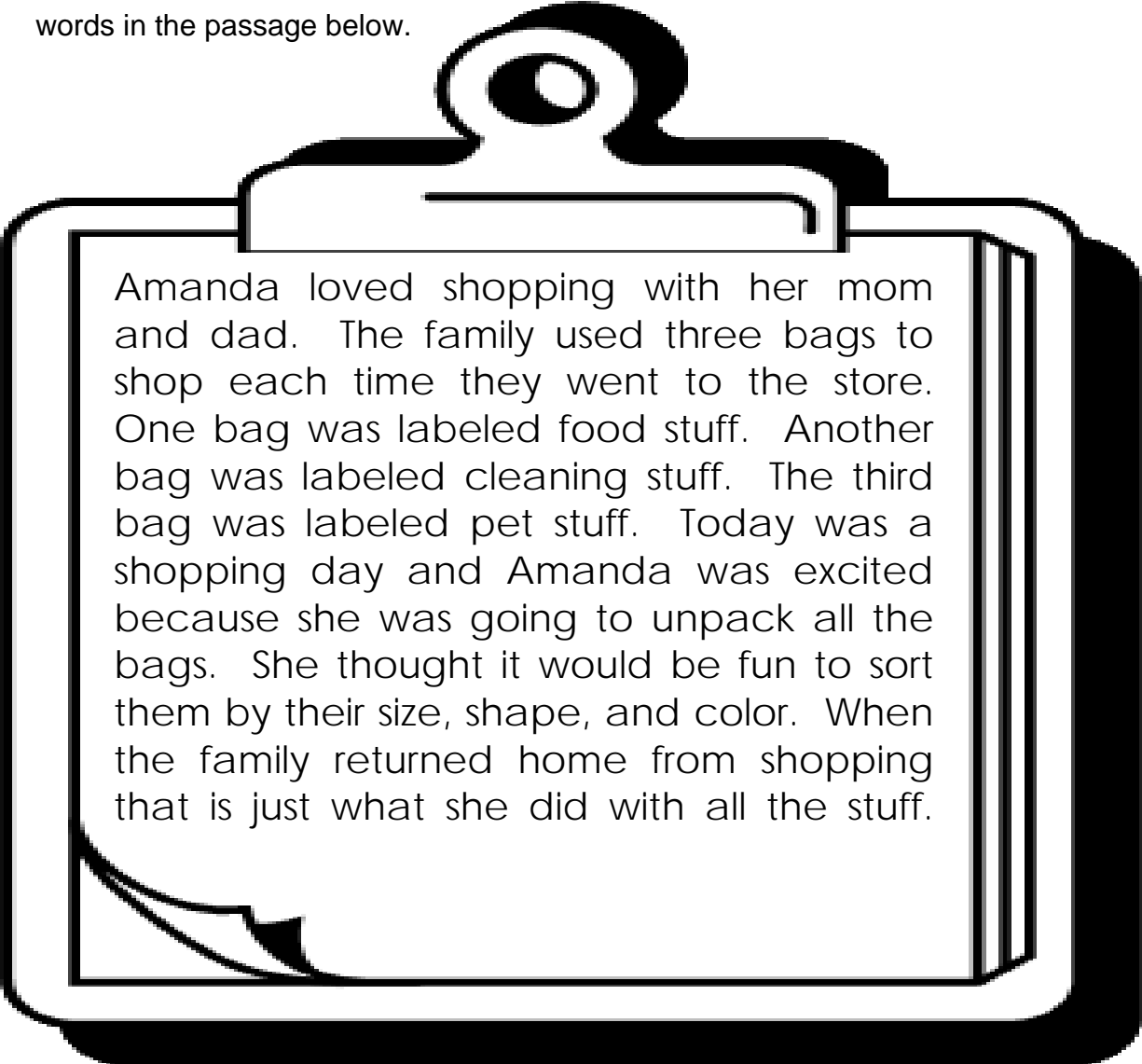


Benchmark: SC.K.N.1.3 (Next Generation Sunshine State Standards) Keep records as appropriate – such as pictorial records – of investigations conducted.

Shopping for Kitchen Stuff

Reading Activity

Read the story below with your child. Have them circle any words that they recognize in one color and all other words circle in a different color to theirs. Share the reading of the story by having your child read the circled words they know as you read all the other words in the passage below.



Amanda loved shopping with her mom and dad. The family used three bags to shop each time they went to the store. One bag was labeled food stuff. Another bag was labeled cleaning stuff. The third bag was labeled pet stuff. Today was a shopping day and Amanda was excited because she was going to unpack all the bags. She thought it would be fun to sort them by their size, shape, and color. When the family returned home from shopping that is just what she did with all the stuff.

Benchmark: SC.K.N.1.5 (Next Generation Sunshine State Standards) Recognize that learning can come from careful observation.

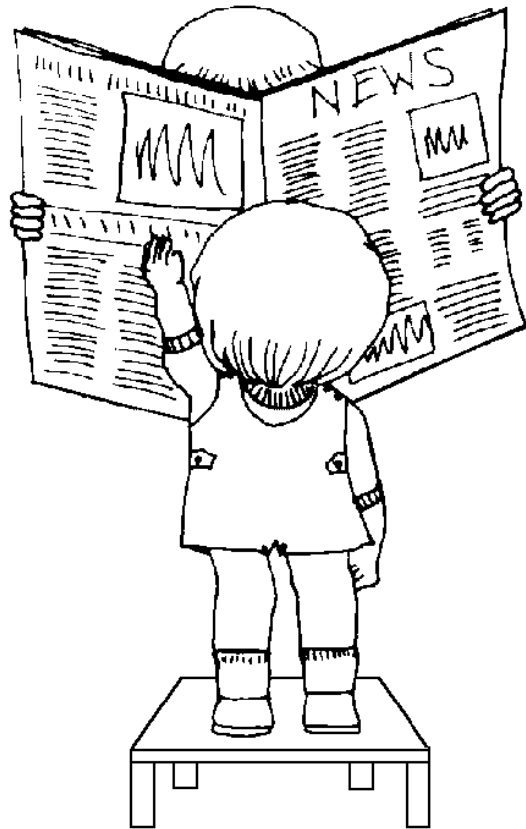
Exploring the Classifieds

What You Need

- newspaper
- scissors
- glue
- large piece of blank paper or several sheets of paper
- crayons
- pencil

What to Do

Together with your child search through the newspaper for the following: pictures of people, animals, places and objects. If you are using one sheet, fold it to create four squares. If you are using separate sheets of paper, use the four sheets to arrange the pictures of the different categories you found in the newspaper. One sheet/square should be labeled people. Another sheet/square should be labeled animals and so on. Glue the pictures on to the sheets to form a collage of the categories. Ask your child the following questions:



- How did you select the pictures?
- Why did you place them in a certain group?
- Are there other groups they can make with the pictures they found?
- Can some of the pictures be placed in more than one group?
- What other groups can they make?

Benchmark: SC.K.N.1.5 (Next Generation Sunshine State Standards) Recognize that learning can come from careful observation.

ANTI-DISCRIMINATION POLICY

Federal and State Laws

The School Board of Miami-Dade County, Florida adheres to a policy of nondiscrimination in employment and educational programs/activities and strives affirmatively to provide equal opportunity for all as required by law:

Title VI of the Civil Rights Act of 1964 - prohibits discrimination on the basis of race, color, religion, or national origin.

Title VII of the Civil Rights Act of 1964, as amended - prohibits discrimination in employment on the basis of race, color, religion, gender, or national origin.

Title IX of the Educational Amendments of 1972 - prohibits discrimination on the basis of gender.

Age Discrimination in Employment Act of 1967 (ADEA), as amended - prohibits discrimination on the basis of age with respect to individuals who are at least 40.

The Equal Pay Act of 1963, as amended - prohibits gender discrimination in payment of wages to women and men performing substantially equal work in the same establishment.

Section 504 of the Rehabilitation Act of 1973 - prohibits discrimination against the disabled.

Americans with Disabilities Act of 1990 (ADA) - prohibits discrimination against individuals with disabilities in employment, public service, public accommodations and telecommunications.

The Family and Medical Leave Act of 1993 (FMLA) - requires covered employers to provide up to 12 weeks of unpaid, job-protected leave to "eligible" employees for certain family and medical reasons.

The Pregnancy Discrimination Act of 1978 - prohibits discrimination in employment on the basis of pregnancy, childbirth, or related medical conditions.

Florida Educational Equity Act (FEEA) - prohibits discrimination on the basis of race, gender, national origin, marital status, or handicap against a student or employee.

Florida Civil Rights Act of 1992 - secures for all individuals within the state freedom from discrimination because of race, color, religion, sex, national origin, age, handicap, or marital status.

Veterans are provided re-employment rights in accordance with P.L. 93-508 (Federal Law) and Section 295.07 (Florida Statutes), which stipulates categorical preferences for employment.

Revised 9/2008