

Say cheese!

Digital Cameras in the Classroom



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Math Ideas for Using the Digital Camera

1. Geometric Shapes—Have students walk around the classroom, building, or school grounds looking for geometric shapes.
2. Colors—Take pictures of objects of different colors.
3. Tessellations—Take pictures of tessellations found in the real world, i.e. bricks on the outside wall.
4. Patterns—Same idea as tessellations; but with a pattern, whether it be color or shape.
5. Counting/Numbers—Take pictures of objects to represent different numbers, i.e. 3 bananas, 4 chairs. Choose a presentation format or make flashcards.
6. Multiples/ Arrays—When studying multiplication, look for arrays at home, in school, and outside. Make a bulletin board display of the resulting pictures. i.e. 12 may be a 2x6 carton of eggs or 3x4 set of desks.
7. Time—Take pictures of an analog clock. Make flashcards where students can practice telling time.
8. Elapsed Time—Take pictures of an analog clock with different times. Have students determine the amount of elapsed time.
9. Fractions—Use everyday objects to take pictures of fractional parts.
10. Graphs—Graph class favorites (food, movie, book, etc.). Use pictures of students or digital pictures of actual objects (either from the camera or internet) to create a graph.
11. Concentration Game—Create a game set for the concept being studied. One card can have the word or problem and the matching card, the picture. i.e. When studying geometric shapes, one card could say rectangle, its matching card could have a picture of a desktop.
12. Word Problems—Use digital pictures to have students create word problems that can be shared and solved.
13. Most/Fewest—Take pictures of groups of objects or people. Have students select the photo that has the most or fewest objects.
14. Angles—Take photos of students with bent knees and elbows. Have students measure and label the angles. Can also take pictures of angles found around the school building.
15. Symmetry—Take a picture of the student or other object and cut in half. Have students draw the missing half.
16. Number Families—Have students bring in a family photo. Each child writes equations for the number family that his own family represents. For instance, one mom, one dad, two boys, and 1 girl might be: $2 \text{ girls} + 3 \text{ boys} = 5 \text{ in all}$; $3 \text{ boys} + 2 \text{ girls} = 5 \text{ in all}$.
17. Odd/Even—Students take photos around the school of objects that are in odd or even groups.
18. Class Profiles—Students survey other students to chart a profile of a typical student. Use digital images to enhance the charts.

STATE GOAL 6: Demonstrate and apply a knowledge and sense of numbers, including numeration and operations (addition, subtraction, multiplication, division), patterns, ratios and proportions.

Activities 5, 6, 9, 13, 17

STATE GOAL 7: Estimate, make and use measurements of objects, quantities and relationships and determine acceptable levels of accuracy.

Activities 7, 8

STATE GOAL 8: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

Activity 4, 11, 12, 16

STATE GOAL 9: Use geometric methods to analyze, categorize and draw conclusions about points, lines, planes and space.

Activities 1, 3, 14

STATE GOAL 10: Collect, organize and analyze data using statistical methods; predict results; and interpret uncertainty using concepts of probability.

Activity 10, 18

Science Ideas for Using the Digital Camera

1. Horticulture Guide—Make a guidebook about trees, flowers, or plants. Students can research to identify each plant and gather information such as amount of sunlight needed, best soil to use, genus species name, etc.
2. Seasons—Use the camera to take pictures of signs of the season being studied.
3. Animals—Use the camera to take pictures of the various animals on a trip to the zoo or a farm. Students can report on the animal, including the picture as part of the report.
4. Stages of Development—Document the stages of the life cycle by taking pictures at each stage of development of a tadpole, butterfly, etc. Use the pictures as a bulletin board display or as a way for students to sequence the events.
5. Simple Machines—Have students take pictures of objects in school that are made of compound or simple machines.
6. Simple Machines, Part II—Use pictures of compound and simple machines and have students identify the parts.
7. Parts of a Flower—Instead of drawing the various parts of a flower, students can use the camera to take pictures of the parts and then choose a presentation format to display with names and descriptions.
8. Clouds—Take pictures of the sky each day. Have students identify the different types of clouds.
9. Moon—Take pictures of the moon each night. Use to track the phases and movement of the moon in the sky.
10. Senses—Have students take pictures of the body parts used for each sense. Then take pictures of everyday objects or use pictures from the Internet. Have students match the objects to what senses can be used to identify each.
11. Experiment—Use the camera to take pictures during each step of the experiment. Choose a presentation format to explain the steps followed and conclusions drawn. Great way for an absent student to partake in a missed experiment.
12. Lab equipment—Use the camera to take pictures of various equipment used and purpose served. Choose a presentation format to share the information.
13. Sun—Take pictures of the position of the sun throughout the day. Be sure to include some landmark to be able to see the movement.
14. Weather—Use the camera to take pictures on a daily basis of the weather. Use for graphing purposes or other reasons.
15. Watch It Grow—Use the digital camera to document the growth of plants.
16. As Time Goes By—Select a location outside your school. Take one photo from that location each week. Record the date on the picture and hang on the wall. As the year progresses, discuss how the scene changes.
17. What's My Category?—Take digital pictures of various objects. Have students classify them according to set criteria, i.e. living or non-living, organic or inorganic.
18. Creature Feature—If you're studying animals, take photos of students in an appropriate pose (crawling, running, flying, etc.). Use drawing tools to add wings, extra legs, antennae, etc. to complete the animal.
19. Head to Toe—Take a full-length picture of each student. Students can then attach cutouts or draw and label bones or internal organs.

20. Flashcards—Take close ups of various body parts (eyes, elbow, hand, etc.) Use to make flashcards for students.
21. Insects—Instead of drawing an insect, students can use the camera to take pictures and then choose a presentation format to display with names and descriptions of body parts.
22. Tests/Quizzes—Use photos taken during experiments to ask questions on a test.
23. Got Milk?—Use drawing tools to add a milk mustache to photo. Have students create their own ads on why milk is an important part of their diet.
24. What Matters?—Use the digital camera to document chemical and physical changes in matter over time.
25. Cause and Effect—Use the camera to document cases of cause and effect, i.e. tree close to the sidewalk causes cracks in sidewalk.
26. What's to Eat?—Use photos to create well-balanced meals.
27. Close-Ups—Take pictures of each child's eyes, nose, feet, or mouth only. Have students match each child to his/her body part.
28. Close-Ups, Part II—Take a series of pictures of the same object, from very close up to full view. Project the image starting with the close up and have the class predict what the object is.
29. What Sense?—Assign groups of students one of the five senses. Have each group photograph the appropriate sensory organ and then take pictures of objects that organ might best perceive.
30. Tracks or Traces—Have students take pictures that show indirect evidence of a population of something, i.e. bird nest, footprints, cans, cars, desks.

STATE GOAL 11: Understand the processes of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

Activities 11, 12, 17, 22, 28

STATE GOAL 12: Understand the fundamental concepts, principles and interconnections of the life, physical and earth/space sciences.

Activities 1, 2, 3, 4, 7, 8, 9, 10, 13, 14, 15, 18, 19, 20, 21, 24, 25, 27, 29, 30

STATE GOAL 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

Activities 5, 6, 16, 23, 26

Social Studies Ideas for Using the Digital Camera

1. Landmarks—Take pictures of landmarks around town. Have students use the pictures in making a presentation about your city. Use pictures from the Internet for any city/state/country that is being studied.
2. Government—Use pictures from the camera or the Internet to create a presentation about local or national government officials and their job descriptions.
3. Interview—Have students report on someone they admire. Include their picture in their report or presentation.
4. Emotions—Have students make faces that indicate various emotions. Use the pictures to make emotion flashcards, for creative writing, or to discuss nonverbal language.
5. Economics—Have students explore the school taking pictures of goods and services. Label the pictures and categorize them into the two groups.
6. Family Tree—Take digital pictures or use a scanner to digitize prints and use to create a family tree.
7. Photo Frame—Create a template with room for a picture in the center. Students add a picture (either scanned or from Internet) of a president, inventor, landmark, etc. and include facts about the picture on each of the four sides.
8. Timeline—Use scanned pictures or photos from the Internet and create a timeline of whatever period of history is being studied.
9. Postcards—Use Internet or scanned pictures to create a postcard that tells about the state being researched.
10. Quilt—Use scanned or Internet photos to create a quilt that explains the topic being researched.
11. Stamps—Use digital pictures to create a stamp that recognizes students' future contributions to society.
12. Symbols—After a discussion of national or state symbols, choose a well-known song, poem, or story and have students find a picture that they think symbolizes it.
13. Bill of Rights—After discussing the Bill of Rights, students should select an amendment and find/take a picture of something that might be very different if not for the freedom guaranteed in that amendment.
14. Time Capsule—Each student contributes a picture to a time capsule based on what he/she wants people in the future to know about or remember from the present. Include a written explanation as to what was chosen and why.
15. Career Choices—Have students use drawing tools to add details to pictures of themselves to depict the career of their choice.
16. Who Are You?—Take pictures of all the school helpers (janitors, secretaries, etc.) Include in a school book with their names and a description of their jobs.
17. Passport—Create a passport for each student as they study countries around the world.
18. President's Day—Use drawing tools to add a beard and stove top hat to picture of student. Students write about what they would do if they were president.
19. Map It—Have students draw a map of the room, school, or town using pictures to show their location.

20. Personal Crest—Create a template with a room for student’s picture in center. In each area of the crest, students can write about different areas of their lives.
21. Who Am I?—Take photos of students dressed as historical figures. Students create PowerPoints with a clue on each slide to see if others can guess who they are.

STATE GOAL 14: Understand political systems, with an emphasis on the United States.
Activities 2, 12, 13, 18

STATE GOAL 15: Understand economic systems, with an emphasis on the United States.
Activities 5, 8

STATE GOAL 16: Understand events, trends, individuals and movements shaping the history of Illinois, the United States and other nations.
Activities 7, 10, 14, 21

STATE GOAL 17: Understand world geography and the effects of geography on society, with an emphasis on the United States.
Activities 1, 9, 17, 19

STATE GOAL 18: Understand social systems, with an emphasis on the United States.
Activities 3, 4, 6, 11, 15, 16, 20

Language Art Ideas for Using the Digital Camera

1. Biopoems—Use the camera to take pictures of the students to insert in an autobiographical poem.
2. Autobiographies—Use PowerPoint to have students create a short presentation about themselves. Possible slide topics include family, hobbies, favorites, etc. Use Inspiration/Kidspiration to have students create a web about themselves.
3. Prepositions—Take pictures of objects that represent the prepositions up, down, near, far, under, over, and beside. Make into a bulletin board, book, or flashcards.
4. Opposites—Take pictures of opposites such as big and small or in and out. Use the pictures to teach and reinforce the concept of opposites.
5. I Spy—Take a picture and use it to create an I Spy document.
6. Scenes—Take pictures around the school and use to illustrate creative writing.
7. Sequencing—Take pictures of steps in an event, i.e. sharpening a pencil. Have students put them in order. Students can also use the pictures to write about the process using order words.
8. How To—Write a “how to” essay describing how to do something. Take pictures of each step to include in the essay when published.
9. All Around Us—Take pictures of common every day signs, i.e. stop sign, exit sign, fast food signs. Make a book for students to read.
10. Phonics—Find words/objects of specific phonemic sounds and make a book. i.e. Book about the short “a” sound might include pictures of an apple, bat, cat, can, etc.
11. Compare/Contrast—Take pictures of two objects, animals, people, or places. Make a Venn diagram of their differences and similarities.
12. Adjectives—Take a picture of an object. List all the words or phrases that can be thought of to describe the object.
13. Personification—Take a picture of an object. Distribute the pictures to students and have them write a story or description of that object using personification.
14. Alphabet Book—Take pictures of various objects to create an alphabet book.
15. Rebus Story—Use digital pictures to write a rebus story.
16. Trading Cards—Have students use digital pictures to create trading cards of themselves.
17. Self-Portrait—Have students find or take pictures without people that are visual metaphors for their personalities, likes, character, etc. Students can write about why the picture represents them.
18. Narratives—Give each student a different picture. Have students begin a narrative based on their photo. After a set time, pictures and paper get rotated to the next student who continues the narrative.
19. Picture Dictionary—Students can take pictures of objects, actions, or events as they create their own dictionaries.
20. Image Clustering—Use a digital picture as a starting point. Create a web off it, using words and phrases that are associated with the picture. Use the web to write a story.

21. Myths/Fairy Tales—Take a digital picture of a student posed as a character in a myth or fairy tale. Use drawing tools to add props. Or have students write their own fairy tale based on their drawing.
22. Good Manners—Create a book of good manners for the classroom or any other part of the school. Take photos of good behavior and have students write about what is happening in each photo.
23. Student Affirmations—Insert each student's picture onto a separate page in a word processing document. Have students write a specific affirmation under each picture. Print page for each student.
24. Alliteration—Write an alliterative sentence describing a digital picture.
25. Touring for Nouns—In small groups, students tour the school for nouns that fit into an assigned category such as people, places, things, and ideas/ thoughts/ emotions.
26. Favorite Book—Take a picture of the student holding his/her favorite book. Students write a couple of sentences explaining why it's their favorite. Make into a class book.
27. Author Page—Include photo on author page in student books.
28. Me vs. Me—Take a photo of student at the beginning of the school year and then again at the end and have them complete a Venn diagram and see how they've changed and stayed the same over the year.
29. More Venns—Have students complete a Venn diagram comparing themselves with a classmate or a character in a book. Use photos to illustrate.
30. Poetry—Use digital images to write a poem that reflects the image.
31. Photo Journal—Have students take turns being the class photographer. Students take pictures of the class over the course of a week. Once pictures are imported into a word processing program, student adds captions, and turns it into a journal for the class.
32. Vowel Book—Take pictures of various objects whose names have short vowel sounds or long vowel sounds.
33. Vocabulary—Take a picture of an object and have students write as many words as they can think of that are associated with that object. Have students group words into categories including nouns, adjectives, and verbs.
34. Special Occasion Cards—Use a watermarked picture as a background to a poem in creating a card or something that can be framed.
35. Lucky Me—Put students' pictures in center of a shamrock and have them write on each leaf ways they are lucky. Can also be done at Thanksgiving with a traced hand, things for which they are thankful on each finger and the caption "A Handful of Thanks".
36. Look at Me!—Primary students can write a book about things they do at school. i.e. Look at me! I am reading. Look at me! I am coloring, etc. Each student would have his/her own photos on the appropriate pages.
37. How are They Connected?—Students take 5 random photos and write a story that includes all of them.
38. Minibook—Use digital images to illustrate a minibook about any topic.
39. Similes or Metaphors—Create a list of words. Then take pictures of things that show how that object is like your word, i.e. A lifetime is like a picture of a highway.

40. Memory Books—Take digital pictures of student’s work and activities to create an end-of-the-year memory book.

STATE GOAL 1: Read with understanding and fluency.

Activity 3, 4, 7, 10, 12, 25, 32, 33

STATE GOAL 2: Read and understand literature representative of various societies, eras and ideas.

Activity 5, 9,14, 15, 19, 21, 22, 24, 34, 39

STATE GOAL 3: Write to communicate for a variety of purposes.

Activities 6, 11, 13, 16, 23, 26, 31, 31, 37, 40

STATE GOAL 4: Listen and speak effectively in a variety of situations.

Activities 17, 18, 27, 28, 29, 35, 36

STATE GOAL 5: Use the language arts to acquire, assess and communicate information.

Activities 1, 2, 8, 20, 38

Miscellaneous Ideas for Using the Digital Camera

1. Welcome to Our School—Take pictures of the important people and places in your school. Display on a bulletin board to acquaint students at the beginning of the year. Great in a book to give to new students as they enter during the school year.
2. Getting to Know You—Take pictures of students, yourself, and any classroom volunteers. Create a book with each person writing a little about him/herself.
3. Bulletin Board—Use pictures of students to include inside Ellison cutouts, i.e. stars with the caption “Stars of Tomorrow”.
4. Bulletin Board, Part II—Take photos of any bulletin boards that really worked for you as a reminder for future years.
5. Calendar—Use pictures of students, field trips, assemblies, and classroom events to create a calendar as a gift.
6. Calendar, Part II—Use digital pictures of the students to place on the class calendar to show when it’s their birthdays.
7. Field Trips—Take the camera on a field trip. Use the pictures in a weekly newsletter, as part of reports on what students learned on the trip, class book on what happened during the year, etc.
8. Student of the Week—Use the camera to take a current picture of the student. Scan any photos brought in so students can create a collage of pictures and captions. Create a class book of all collages.
9. Scrapbook—Use the camera to document daily events as well as special events. Create a classroom scrapbook. Have students write a summary of each event.
10. Desktop Wallpaper—Use the digital camera or scan a favorite picture. Use as your computer desktop wallpaper.
11. Scavenger Hunt—Send groups of students on a scavenger hunt around the school. Instead of bringing back objects, they take a picture.
12. Web Page—Use digital pictures on your class web page to share various events.
13. ID Pictures—Use pictures of your students as part of their nametag for field trips.
14. Seating Chart—Ideal for a sub folder.
15. Attendance/Lunch—Laminate pictures of students. Have them move their picture to the appropriate column to take attendance/lunch count at a glance.
16. Quilt Square—Create a template with room for a picture in the center. Students add their picture and include facts about themselves on each of the four sides, i.e. name and birthday, family members, favorites, etc. “Stitch” together to make a large class quilt.
17. Timeline—Scan pictures and use to create a timeline of students’ lives.
18. Thank You Cards—Incorporate a picture of your class into a thank you card for classroom volunteers.
19. ESL/Bilingual Students—Make flashcards of every day objects for your ESL students that have the name of the object in English.
20. Bookmarks—Use digital pictures to create a special bookmark for students.
21. Job Charts—Use digital pictures to create a weekly job chart.
22. Desk Tags—Add digital pictures to students’ desk tags to aid visitors to the classroom.

23. Digital Portfolio—Use the digital camera to take pictures of activities, bulletin boards, and student work to create a digital portfolio of your own work.
24. Here's Your Place—Use digital photos to designate a student's coat rack, mailbox, etc.
25. Here's Their Place—Post digital photos by classroom storage areas showing what they should look like when they're organized and clean.
26. Caught Being Good—Use the digital camera to take pictures of students doing the right thing in terms of behavior and social interaction.
27. Photo Dice—Make cubes from cardboard and affix a picture of each student, one per side. Use the photo die to select the student to answer a question, run an errand, assign partners, etc.
28. What's This?—Use digital pictures to label different items, i.e. parts of the computer.
29. Picture This—Use a picture as a starting point of another picture. Place it on a larger sheet of paper and draw a new background.
30. Visual Telephone—Have one student take a picture. Upon returning, that student shows it to one other student who attempts to find the location and take the same picture. Repeat until everyone has had a chance to take a picture. Post pictures in the order they were taken and compare them.
31. Actions—Take pictures of students posed to show different actions such as running, sitting, yawning, etc.
32. Stickers—Create stickers with your students' photos. Use to decorate their papers.
33. Credit Cards—Do you give homework passes or rewards for reading extra books? Create a credit card for each student with his/her picture and add an appropriate title. Use a hole punch to keep track of the number of occurrences until they earn the reward.
34. Quick List—Make a list of your students' names, add their pictures, and give the list to anyone who needs to learn the names quickly; for instance, field trip chaperones, gym teacher, etc.
35. Classroom newsletter—Share with parents photos of your students at work in the weekly classroom newsletter.
36. Certificates—Add student photo to certificate or award.
37. Where Does This Plug In?—If you need to disconnect your computer or anything else with cables, take a picture first of where the cables go so it's easier to reassemble.
38. Projects—Take pictures of bulky projects to put into a student portfolio.
39. Center Board—Use student photos to show who is working at which center that day.
40. Open House Desk Tags—Take a full-body shot of each student. Print on cardstock. Have students cut out and glue a straw to the back. Insert the straw into a spool or mound of clay to make a stand-up desk tag.
41. Year in Review—Use Inspiration to create a web reviewing events and things learned during the year. Add digital images that have been taken over the course of the year.
42. Year in Review, Part II—Assign each letter of the alphabet to students who write about something that took place or was studied that year that begins with that letter, i.e. F is for Fractions. Illustrate with digital images.

43. Perspective—Take pictures of an object from many different points of view. Show slides and have students discuss impact of position.
44. Guest Speakers—Take pictures and insert into a PowerPoint show along with an explanation to share with other classes.
45. Pillows—Transfer photos to fabric and create a pillow as a gift.