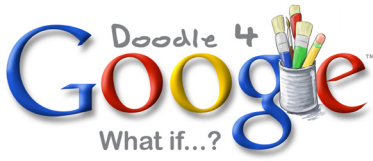


## Welcome

These lesson plans are suggestions for how the Doodle 4 Google project and its “What If...?” theme might be used to meet the U.S. National Standards of Art, Technology Literacy, Language Arts and Social Studies for students in grades K-3.

For each subject, the plans include recommendations on developing students’ Google doodles, and the accompanying short essays, in order to enter the competition. However, if you plan to apply this project across multiple subjects, please adapt the lesson plans as you see fit.

On a similar note: we understand that, as teachers, you’re incredibly creative, so feel free to branch out on your own and to vary the “What if...?” theme according to your class topics or units. We want your students to think as big as they want to think – so you absolutely should encourage them to open their minds and let their creativity flow.



**Duration:** 2 - 5 class periods, depending on teacher's time limits

**Description:**

What if you could design the transportation of the future? In this lesson, students will contemplate changes in transportation throughout history and imagine future modes of transportation. Students will also identify ways transportation innovation has impacted civilizations.

**Standards:**

Source: National Standards for Arts Education

<http://artsedge.kennedy-center.org/teach/standards.cfm>

- Choosing and evaluating a range of subject matter, symbols, and ideas (Visual Arts Standard 3)
- Understanding the visual arts in relation to history and cultures (Visual Arts Standard 4)

**Objectives:**

Students will be able to:

- observe historical photos and drawings
- use prior knowledge of vehicles to brainstorm types of transport
- categorize various forms of transportation by era
- verbalize how transportation generally has evolved over time
- indicate change using a timeline
- imagine how transportation may change in the future and hypothesize on its implications

**Materials:**

- Toy vehicles brought from home
- Magazines
- Butcher paper
- Large chart paper
- Art supplies including colored pencils, crayons, felt tip markers, paint
- Drawing paper
- Optional: computer with digital drawing/paint tools, projector

**Procedures:**

1. Students will bring one transportation toy from home for show and tell. Toys will be placed on a table as a class museum of transportation.
2. The teacher will lead a discussion on the types of models brought to school and will use large chart paper to categorize vehicles (bikes, motorcycles, cars, trucks, etc.).
3. Students will analyze the list of vehicles and will elaborate by offering other types of transportation not represented by the class transportation museum.
4. The teacher will make a student-sized version of this chart, and students will find examples in magazines which will be cut out and pasted in the appropriate category.

5. The teacher will point out that these are modern vehicles for the most part and will start a discussion to help students think about transportation in the past. These ideas will be listed on another sheet of chart paper. This chart paper should be divided into two columns: one labeled “Type of Transportation” and the other labeled “Impact Upon World.” Students will then call out historical modes of transportation and elaborate on the changes brought about by these vehicles. Examples could include chariots, wagons, buggies and steam trains. If the teacher feels that the students need more background information, the teacher could display photos from historical websites. When the class feels their list is complete, they will conclude this assignment by determining the chronological order in which particular modes of transport appeared.
6. Using a long sheet of butcher paper, students will work together to draw a transportation timeline, placing examples of transportation throughout the ages in general chronological order.
7. Based on their study of modes of transportation, students will then predict how transportation might change in the future and how these changes might impact humanity, then bring these predictions to life by drawing this imagined mode of transportation.
8. Once this preliminary drawing is complete, students will decide how they can envelope the Google logo in a doodle using this transportation theme. To give them an idea of how they can cleverly embed vehicles in a Google doodle, be sure to show them samples from previous competitions and from the official collection of Google doodles.
9. Once your students have finished their doodles, be sure to have them give their doodle a title (5 words max) and write a 50-word description of how their doodle expresses the theme “What if...?”

## Evaluation:

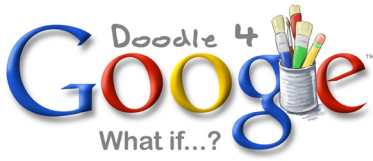
The teacher should create a rubric detailing the assessment process of this assignment. Presenting this rubric to students before beginning the final product may guide students towards producing their best work. Criteria for this rubric could include:

- Design
- Creativity
- Color Choices
- Technique
- Use of Materials
- Effort

## Recommended Resources

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- American Memory from the Library of Congress  
<http://memory.loc.gov/ammem/index.html>
- America on the Move: Transportation History  
[http://americanhistory.si.edu/ONTHEMOVE/themes/story\\_48\\_1.html](http://americanhistory.si.edu/ONTHEMOVE/themes/story_48_1.html)
- Encyclopedia Smithsonian: Transportation History  
[http://www.si.edu/Encyclopedia\\_SI/Science\\_and\\_Technology/Transportation\\_Technology.htm](http://www.si.edu/Encyclopedia_SI/Science_and_Technology/Transportation_Technology.htm)
- The British Museum Images  
<http://www.bmimages.com/index.asp>
- World History: HyperHistory  
[http://www.hyperhistory.com/online\\_n2/History\\_n2/a.html](http://www.hyperhistory.com/online_n2/History_n2/a.html)



# Technology Literacy K-3

**Duration:** 2 - 5 class periods, depending on teacher's time limits

## **Description:**

What if you could design a toy of the future? In this activity, students will brainstorm ideas about how toys might evolve and will manifest these ideas in the form of a Google doodle.

## **Standards:**

Source: ISTE's Educational Technology Standards for Students  
[http://www.iste.org/Content/NavigationMenu/NETS/For\\_Students/NETS\\_S.htm](http://www.iste.org/Content/NavigationMenu/NETS/For_Students/NETS_S.htm)

- Creativity and Innovation; Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. (NETS 1)
- Research and Information Fluency; Students apply digital tools to gather, evaluate and use information. (NETS 3)

## **Objectives:**

Students will be able to:

- research the history of various toys
- determine the characteristics of successful, timeless toys
- brainstorm ideas for improving existing toys or inventing new ones
- translate these ideas into an detailed depiction of toys of the future around the Google logo

## **Materials:**

- Concept-mapping website or software (optional)
- Toys (robots, handheld games, dolls, blocks, classic favorites, anything students fancy)
- Large chart paper
- Art supplies including colored pencils, crayons, felt tip markers and paint
- Drawing paper
- Optional: computer with digital drawing/paint tools, projector

## **Procedures:**

1. Gather students in a circle and place toys in the middle. Sit in the middle with a basket of classic toys and explain that today, the class is going to play. Ask the students why they think you brought toys to class. State that in this lesson, students are going to explore toys in order to generate ideas for creating their very own toys of the future.
2. Next, explore the concept of "the future" through continued discussion. This may be a bit abstract for students, so perhaps you can read a book to students that involves the future to illustrate the concept.
3. Using concept mapping software and a projection device (these items are optional; you can also use chart paper to draw concept maps), have students offer words that make them think of the future. This will help kids to activate their prior knowledge on this concept. Students can also draw concept maps by hand on notebook paper.
4. Add to this group brainstorming activity by starting another concept map. Tell students, now that we know what the future might look like, let's list all the ideas we have about fun toys. Some guiding questions might be:

# Technology Literacy K-3

- What appeals to you in a toy? Colors? Buttons? Movement? Sounds?
  - What are some features of your own toys that you really like or enjoy?
  - What toys do you play with the most?
  - What features make toys engaging to kids?
  - If you were going to design a toy that could do anything you wanted, what would you like it to be able to do?
  - Toys have become increasingly complex. Given how complex modern toys have become, what will toys of the future look like? What will they do?
5. If you've used concept mapping software, print out and photocopy these concept maps so students can refer to their ideas.
  6. Using the ideas in the concept maps, students should "doodle" some ideas for new toys on a piece of scratch paper. This is a rough draft for their Google doodle. Alternatively, students could also build a model of their ideal toy.
  7. Explain to students that Google often decorates their home page with drawings called Google doodles. Show students a picture of Dennis the artist and some sample doodles. State that your students have a chance to see their very own doodle displayed on the web via this contest.
  8. Ask students to take some of their rough draft doodles and embed them around the Google logo, just like in the sample doodles. Point out that perhaps students can think of clever ways to showcase their dream toys within the Google doodle.
  9. When students have completed their work, make color photocopies of the finished products. While using a copier, reduce the size of these images so that students will have enough room to write essays below the image.
  10. As a follow-up assignment, have students write a title for their doodle (5 words max) and a 50-word description of how their doodle expresses their toy of the future.
  11. Secure the written work under the reduced sized Google doodle and bind all the pages together to make a classroom book. Place this book in your classroom library for all students to enjoy.

## Evaluation:

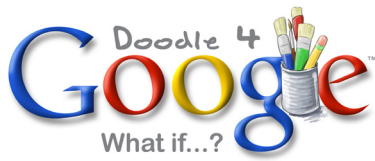
The teacher should create a rubric detailing the assessment process of this assignment. Presenting this rubric to students before beginning the final product may guide students towards producing their best work. Criteria for this rubric could include:

- Design
- Creativity
- Color Choices
- Technique
- Use of Materials
- Effort

## Recommended Resources

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- *Toys!: Amazing Stories Behind Some Great Inventions*, Don Wulffson & Laurie Keller
- *Steve Caney's Toy Book*, Steve Caney
- The History Channel: The History of Toys  
<http://www.history.com/minisites/toys>
- Strong National Museum of Play: National Toy Hall of Fame  
<http://strongmuseum.com/NTHoF/NTHoF.html>
- Dr. Toy  
<http://www.drtoy.com/main/index.html>



**Duration:** 2 - 5 class periods, depending on teacher's time limits

## **Description:**

What if you could invent your own holiday or celebration? What people, events and ideas deserve their own festive day? For this lesson, students will engage in dialogue about celebrations and holidays. Students will reflect upon their own traditions, discover celebrations of other cultures, and apply this knowledge to construct a holiday or celebration of their own.

## **Standards:**

Source: NCTE/IRA Standards for the English Language Arts  
<http://www.ncte.org/about/over/standards/110846.htm>

- Students read a wide range of print and non-print texts to build an understanding of texts, of themselves, and of the cultures of the U.S. and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works. (Standard 1)
- Students adjust their use of spoken, written and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes. (Standard 4)

## **Objectives:**

Students will be able to:

- read and respond to a variety of texts reflecting a multicultural perspective
- identify key celebrations and holidays within their own culture and those of their classmates
- identify events worth celebrating that might not necessarily be culture-specific
- evaluate holidays, deciding on features which are most important to them
- recommend other people, discoveries, themes and events worthy of celebration
- design their own celebration in words and pictures

## **Materials:**

- Large chart paper
- Art supplies including colored pencils, crayons, felt tip markers and paint
- Drawing paper
- Writing paper
- Non-fiction and fiction books on the theme of holidays and celebrations

## **Procedures:**

1. Introduce the lesson by reading a book on birthdays to students. A suggested title might be *Birthdays Around the World* by Mary D. Lankford and Karen Dugan. Every child has a birthday, so beginning with the most personal of celebrations may help to activate students' prior knowledge.
2. After reading a book, ask children to reflect on their own birthdays and list some commonalities on chart paper. Then, ask students to describe some unique features of their family's birthday traditions. Again, list those traits on the chart paper. Post these charts in a place where children can refer to them as they complete the next steps of the lesson.

3. Next, begin a discussion on holidays celebrated on a larger scale. Display a large calendar. Using a new sheet of paper, list holidays and special days celebrated in the U.S. Then, ask students if they know of any different holidays celebrated in other parts of the world. Make sure to note locations on your chart.
4. Lead students into brainstorming ideas for creating their own holiday celebrations. List important words on chart paper. Some guiding questions might include:
  - What are your favorite parts of various celebrations?
  - What are things every celebration should have?
  - What are some new and different events that should be celebrated by your family?
  - Do you know of any silly holidays like Talk Like a Pirate Day?
  - Why would one make a holiday like Talk Like a Pirate Day? Can you think of a celebration that would invite others to have fun?
  - What other people, discoveries, themes, and/or events are worthy of their own day of celebration?
5. Next, have students create a written composition with illustrations describing a dream holiday. This illustration will prepare the students to draw their Google doodle.
6. For a culminating activity, display sample Google doodles and explain that Dennis at Google creates these to celebrate important days. Ask students to create a Google doodle for their invented holiday. They should also include a title (5 words max) and a 50-word description explaining their invented celebration. Based on the final products, students can examine each other's work and vote for the holiday that they'd like to adopt as a classroom community.

## Evaluation:

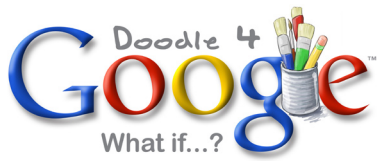
The teacher should create a rubric detailing the assessment process of the final assignment. Presenting this rubric to students before beginning the final product may guide students towards producing their best work. Criteria for this rubric could include:

- Design
- Creativity
- Color Choices
- Technique
- Use of Materials
- Effort

## Recommended Resources

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- A large calendar that contains important dates
- *The Teacher's Calendar, School Year 2007-2008*, editors of Chase's Calendar of Events
- *Rookie Read-About Holidays* series
- *Children Just Like Me: Celebrations!*, Anabel and Barnabas Kindersley
- *Hooray for Today!: All About Holidays (Cat in the Hat Learning Library)*, Bonnie Worth and Aristides Ruiz
- KIDPROJ's Multi-Cultural Calendar  
<http://www.kidlink.org/KIDPROJ/MCC>
- Earth Calendar  
<http://www.earthcalendar.net/index.php>



**Duration:** 2 - 5 class periods, depending on teacher's time limits

## Description:

What if you could invent something to change your community? What could be improved in your community if you had a big idea? Teachers will guide students in this lesson towards considering gadgets, machines, people, events, organizations, ideas, or processes that could possibly help a community. Students will develop feelings of empowerment and compassion by elaborating on plans that could have a positive impact.

## Standards:

Source: ISTE's Curriculum and Content Area Standards - Social Studies Standards  
[http://cnets.iste.org/currstands/cstands-ss\\_ix.html](http://cnets.iste.org/currstands/cstands-ss_ix.html)

- Explore causes, consequences, and possible solutions to persistent, contemporary, and emerging global issues, such as pollution and endangered species; (NETS: Early Grades D)
- Examine the relationships and tensions between personal wants and needs and various global concerns, such as use of imported oil, land use, and environmental protection; (NETS: Early Grades E)
- Investigate concerns, issues, standards, and conflicts related to universal human rights, such as the treatment of children, religious groups, and the effects of war. (NETS: Early Grades F)

Source: Civic Ideas and Practices  
[http://cnets.iste.org/currstands/cstands-ss\\_x.html](http://cnets.iste.org/currstands/cstands-ss_x.html)

- Recognize and interpret how the "common good" can be strengthened through various forms of citizen action. (NETS: Early Grades J)

## Objectives:

Students will be able to:

- list famous people who have impacted the world through action, words, or inventions
- define the term community and parts of a community
- understand that the community can be interpreted in many ways, from local to global connotations.
- determine that people are interdependent
- think about problems in their communities and brainstorm solutions

## Materials:

- Large chart paper
- Art supplies including colored pencils, crayons, felt tip markers and paint
- Drawing paper
- Writing paper

## Procedures:

1. Social studies units often focus on community in primary grades. Select the most relevant community (classroom, school, neighborhood, town or city, country, world) to your curriculum if necessary. Another approach would be to map different levels of communities with your students as the lesson progresses.

2. Begin with reviewing the concept of a community. Hold a brief discussion and elicit definitions of community from students. Arrive at a general definition as a group, emphasizing that communities can be small or large, and can be found in many different places.
3. Next, read a book aloud to the class about an inspirational historical figure. An example might be *Martin's Big Words: The Life of Dr. Martin Luther King, Jr.* by Doreen Rappaport and Brian Collier.
4. Divide chart paper into two columns labeled Name and Action. Fill in the first entry of this chart with Dr. King's name and ask students to summarize his major contributions to the world.
5. Pair students and have them work together on a worksheet copy of the chart. Give them 15 minutes to brainstorm famous and not famous people who have impacted their communities.
6. Bring the class together and compile names and actions on the class chart.
7. Lead students in drawing some conclusions about their findings. Suggested questions are:
  - Are all of the people we have listed famous?
  - Do you have to be a celebrity to make a difference?
  - Do you think you need to be wealthy to make a difference?
  - Do you think all people who make a difference in their community get the kind of recognition a famous person might get?
  - Why do you think these people felt compelled to improve the world?
8. Transition into the next part of the lesson, which focuses on problem solving. Start another chart, drawing two columns and labeling these columns Community Problems and Solutions. Students will call out problems facing their school, neighborhood, city, and global communities.
9. Next, students will take a moment to reflect on these problems and offer solutions, which the teacher will record in the second chart column.
10. Ask students to select one idea from the brainstorm activities to illustrate through the Doodle 4 Google project. Encourage students to use their imaginations to invent something that would help some of the identified problems. The invention does not need to be based in reality, but in the ideal.
11. Before beginning their doodle, students should quickly sketch ideas on scratch paper. Once they have enough drawn material, they can begin to incorporate their ideas into the Google logo.
12. Once your students have finished their doodles, be sure to have them give their doodle a title (5 words max) and write a 50-word description of how their doodle expresses the theme "What if...?" Students should have the opportunity to hear classmates explain their ideas and see the resulting doodles. Teachers can digitally scan doodles and have students record their thoughts in a computerized slide show. A low-tech approach for sharing could simply have 4 students at a time display their work and other small groups of students can rotate around the classroom to hear presenting students discuss their work.

## Evaluation:

Students could vote for class doodles based on the following suggested categories:

- The Best overall idea
- The Funniest idea
- The Hardest to Pull Off idea
- The Kindest Idea
- The Best Idea for School Communities
- The Best Idea for Neighborhoods
- The Best Idea for Cities or Towns
- The Best Global Idea

## Recommended Resources

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- Community Helpers at Enchantedlearning.com  
<http://www.enchantedlearning.com/themes/communityhelpers.shtml>
- JustGive.org: Inspiring Kids That Make a Difference in the World  
<http://www.justgive.org/html/kidscorner/index.html>
- Children's Museum of Indianapolis: The Power of Children: Making A Difference  
<http://www.childrensmuseum.org/themuseum/powerofchildren/html/index.html>