

# Guinea Pigs Can Do Math Just Like You

## Guinea Pigs Add Up

A Lesson Unit for PreK to 2nd

### BACKGROUND INFORMATION FOR THE TEACHER

One guinea pig becomes twenty! The find that having a classroom pet is more than what they bargained for. In the end, each child gets to take a guinea pig home and the classroom is left with zero. Guinea pig gestation is approximately 60 to 70 days, with litter sizes averaging two to five young. Although they are not weaned until 14 to 28 days after birth, guinea pigs are well developed and can see at birth. They are able to eat regular food pellets when they are just two days old. Because they cannot create Vitamin C as many animals can, all guinea pigs require Vitamin C to be supplied through foods or supplements. Twenty-five milligrams a day is usually adequate for a healthy adult guinea pig although pregnant females may require more.

### ACTIVITIES

#### Pet Portraits

Children are invited to use crayons, pencils, or markers to draw a picture of their family pet on art paper. Once finished children can write the name and type of pet they have or dictate the name and type of pet they have to the teacher who will then write it down on the child's paper. Teacher can mount the children's are on tag board and display throughout the classroom.

#### Pet Graphing

Children look at the drawings of their classroom and count how many of each type of pet class members have. (NOTE: Some children may have drawn more than one type of pet.) The teacher can then create a [bar graph](#) on chart paper and have designated children color in the appropriate number of blocks, if appropriate

#### Guinea Pigs Add Up

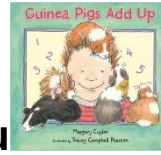
Children are invited to join the teacher in the reading area to hear a reading of Guinea Pigs Add Up by Margery Cuyler. The teacher can read or the class can listen to it [here](#). The teacher helps the children pay special attention to the pictures: the number line at the top of the page, children's facial expressions, the tally marks on the sticky notes, and the addition problems on the children's drawings, the number symbols and subtraction problems on the bulletin boards, patterns on the balls, different sizes of guinea pigs, and the rabbit.

#### Guinea Pigs Count by Tens

Teachers inform children that it takes 60 to 70 days to be born and that there is a fun way to count by skipping numbers. Children can learn to count to 100 by tens using a song found [here](#) seeing and saying the numbers 60 and 70 along the way.

#### How Long Does It Take to Drink 28 Cartons of Milk?

Guinea pigs are not weaned until 14 to 28 days after birth. The teacher and children discuss the meaning of the word '[wean](#)'. Children can count the number of days it takes them to drink 14 cartons/cups of milk at school; then 28 cups/cartons of milk using a calendar reproducible for each child or the classroom calendar for marking purposes depending on grade level. [Calendar templates](#)



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#### Guinea Pig Math Book

Children can create and publish a class math book using the **Guinea Pigs Subtract method** bulletin board or different **patterns and shapes on circles** (representing the balls the guinea pigs played with in the grass) found in the story. Teachers can use one of these student publishing resources~~

- [here](#)
- [here](#)
- [here](#)
- [here](#)
- [here](#)

#### Guinea Pig Girls and Boys

It is possible to determine the gender of a guinea pig at birth. Females have a more 'sectioned' and flatter look with a 'Y' shape and boys have a line with a penis bud at the top like an 'i' shape. Children can create a [T-Chart](#) of the number of girls and boys in the classroom. Teachers, find [guinea pig clipart](#) and print enough for each child. Have the children add a photo of their self to a reproducible and add to the T-Chart.

#### Which Fruit Has the Most Vitamin C? (*Teacher discretion is advised.*)

Because they cannot create Vitamin C as many animals can, all guinea pigs require Vitamin C to be supplied through foods or supplements. Vitamin C (ascorbic acid) is an antioxidant that is essential for human nutrition, too. Without Vitamin C, abnormalities in the bones and teeth develop. The word for this condition is called '[scurvy](#)'. Fruits and vegetables contain Vitamin C. Teachers can complete this [activity](#) to help children learn which fruits and vegetables have the most Vitamin C.

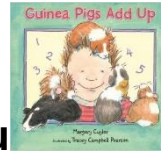
##### Materials

Fruit or juices from a lemon, apple, grapefruit, kiwifruit, pineapple, pear, and orange  
Tincture of iodine  
100 mg vitamin C pills  
Medicine droppers  
500 ml water container  
Set 8 oz clear plastic cups

**SAFETY NOTE: Tincture of iodine is poisonous and therefore should not be ingested. IF iodine gets into eyes, immediately flush with plenty of water. Continue for at least ten minutes and call for medical help. In case of skin contact, wash off with soap and water. Remove any contaminated clothing. If the skin reddens or appears damaged, call for medical aid. Do not ingest any of the juices and /or fruits connected with this project.**

#### Pet Store Field Trip

If the classroom has chosen the type of pet the classroom will have, then a field trip as a class may be in order. Contact a local pet store to schedule a classroom visit. You can also contact pet rescue organizations near your area that may send out volunteers who will speak to your classroom. Once a pet has been chosen, [Pet Supermarket](#) offers an interactive pet care training



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that can be completed online with the classroom. Teachers can print a certificate at the end of the training.

## REFERENCES AND MORE RESOURCES

Breeding Info. <http://emmasguineapigs.blogspot.com/p/breeding-info.html>  
Petco Animal Supplies. (2015). [Guinea Pig Reproduction Inc.](#)  
Teaching Books.net. [Guinea Pigs Add Up.](#)

## EVALUATION

[Math Assessment Rubric](#)