Grade Level: 3-5

Time Estimate: 2-4 days

ROUNDING / INSTRUCTOR INFO

Summary

This lesson includes vocabulary, content, examples, and activities to help students learn how to round numbers to the nearest tenth, hundredth, and thousandth. Students will use their knowledge to complete problem sets based on OCEARCH data and real world situations.

Part 1. Introduction
Part 2. Understanding Place Value
Part 3. Rounding Numbers Up and Down
Part 4. Review
Activity 1. Introducing OCEARCH

Goals & Objectives

The students will:

- Recognize place value from the thousandths through billions;
- Understand why rounding is used and when it can be applied to a situation;
- Learn how to round whole numbers to the tenths, hundredths, and thousandths;
- Learn how to round decimals to the nearest hundredth, tenth, and whole number;
- Develop research skills and use their knowledge of rounding to complete a final project.

Helpful Tips

1. The content in this lesson is based on the conservation work of OCEARCH™ and the Global Shark Tracker™. Spend a few minutes getting familiar with the website and the tracker if you have not done so already. The Global Shark Tracker™ is also available as an app for iPhone and Android
2. This lesson plan is designed to be adaptable to suit your specific needs. Use the entire lesson plan or just parts of it. This material can be expanded to be an entire unit or condensed for just one day in the classroom.
3. Vocabulary words will be underlined as they first appear in the lesson plan. A complete list of vocabulary words is included as well.
4. Answers to questions and prompts for discussions will appear in italics.
5. Optional activities and content (side notes) will appear in a box. Use these to enhance your lesson and adapt it to suit your needs!
6. Have questions for OCEARCH Expedition Leader, Chris Fischer? Email info@OCEARCH.org to schedule a Skype session and let your students/child talk directly to Chris and the OCEARCH crew!
7. Email all questions about this lesson to info@OCEARCH.org.

Grade Level: 3-5

// STANDARDS

STEM

This lesson plan aims to assist teachers in implementing a STEM-based program into their classroom while inspiring the next generation of explorers, scientists, and stewards of the ocean. Based on real science and the Global Shark Tracker™, "Rounding" is intended to promote environmental awareness and to prepare students for STEM careers.

This lesson aligns with the following Common Core Math Standards:

6th Grade Math: NBT.A.1,
7th Grade Math: NBT.A.3,
8th Grade Math: NTB.A.3, NBT.A.4

This lesson aligns with the following TEKS:

Grade 3 Math: 1A, 5A, 5B, 14A, 14B
Grade 3 Math (Revised): 1A, 1B, 2B, 4B
Grade 4 Math: 1A, 1B, 5A, 5B, 14A, 14B
Grade 4 Math (Revised): 1A, 1B, 2A, 2B, 2D, 4G
Grade 5 Math: 1A, 1B, 4, 14A, 14B
Grade 5 Math (Revised): 1A, 1B, 2A, 2C, 3A,

Grade Level: 3-5

ROUNDING / VOCABULARY

Decimal – Any real number expressed in base 10.
Decimal Point – Point or dot used to separate whole number from fractional part of number.
Digit – Any numeral 0 to 9.
Estimate – To make an approximate calculation based on rounding.
Fractional – Relating to, or numerical value that is not a whole number.
Helper Number –Tells you if you should round up or down in your estimation. A helper number is always the digit in the place value smaller than the one rounding.
Place Value – The value of the location of a digit in a number, such as tens, hundreds, and thousands.
Round – To drop any digits to the right of a given decimal place and increase the last remaining digit by 1 if the first dropped digit is 5 or greater.
Whole Number – A natural number without a fraction (as in 1, 2, or 3).

Vocabulary Game (15 – 30 minutes)

Try this fun game to practice and review vocabulary words!

Materials – For this game, students should make vocabulary cards with index cards or cut up paper. Write the word on one side and the definition on the other.

Select one student volunteer to be the game host then divide the rest of the students into two teams. Give the list of vocabulary words and definitions to the host for reference. Have every student spread out his/her cards on their desk word side up. The host announces the definition of one of the words and the students race to pick up the word that matches that definition. The first team with all students holding up the correct word wins a point! It is certainly fair for teammates to help each other out. Tell students to place each card word side down after it has been announced. Once all words have been announced, reverse the procedure and announce the word and students pick up the definition. For an added twist, make a rule where the teams play silently!

Grade Level: 3-5

Time Estimate: 5-15 mins

ROUNDING / PRE-LESSON ASSESSMENT

Use the following true/false and multiple-choice questions as an introduction/warm-up to the lesson topics. You can do this in a verbal or written format, as a game, individually, or as a whole class! A handout is provided if you wish to hand the questions out in a quiz format.

The questions do not need to be graded. They are intended to give the students an idea of what they will be learning and to see what they already know.

1. True or False: Decimal is a whole number.
Answer: False

2. True or False: Rounding helps you estimate the answer to a math problem.
Answer: True

3. True or False: Every Digit in a number has its own place value.
Answer: true

4. In which situation would rounding be helpful? (Select all that apply.)

- **a.** When you need to answer a question quickly and relatively accurate.
- **b.** When you are trying to estimate how many cupcakes to buy for a party.
- **c.** When you need an exact measurement.
- **d.** When a chemist is measuring chemicals for an experiment.

Answers: *a, b*

5. Consider the number 1,126. Which of the following are TRUE? (Select all that apply.)

- **a.** The digit in the tens place is 2.
- **b.** The digit in the hundreds place is 1.
- **c.** The digit in the ones place is 6.
- **d.** The digit in the thousands place is 1.
- **e.** The digit in the ten thousands place is 0.

Answers: *a, b, c, d, e*

6. Consider the number 1,988. Which of the following are FALSE? (Select all that apply.)

- **a.** The number rounded to the nearest ten is 1,990.
- **b. The number rounded to the nearest thousand is 2,000.**
- **c.** The number rounded to the nearest hundred is 1,900.
- **d.** The number rounded to the nearest ten is 1,980.

Answers: *c, d*

Name: _____ Date: _____

Rounding

Select the correct answer(s) to each of the following questions.

1. True or False

Decimal is a whole number.

2. True or False

Rounding helps you estimate the answer to a math problem.

3. True or False

Every Digit in a number has its own place value.

4. In which situation would rounding be helpful? (Select all that apply.)

- **a.** When you need to answer a question quickly and relatively accurate.
- **b.** When you are trying to estimate how many cupcakes to buy for a party.
- **c.** When you need an exact measurement.
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- **c.** The number rounded to the nearest hundred is 1,900.
- **d.** The number rounded to the nearest ten is 1,980.

Grade Level: 3-5

ROUNDING / LESSON PLAN

PART 1. INTRODUCTION **5 mins**

In addition to using basic operations to solve mathematical problems, marine researchers also use a form of estimation called rounding. Rounding allows scientists to use a number that is much easier to add, subtract, multiply, and divide quickly, but is close enough to still give an accurate answer.

This might be a difficult concept for some students, but that is okay – it takes time!

What is an estimation? *Ask the class to answer based on prior or colloquial knowledge*. Estimation is essentially making an educated guess. In math, we estimate to help us calculate relatively accurate answers quickly.

For example, 20 + 30 is much easier to solve quickly than 19 + 28, and 50 is very close to the true answer of 47.

In science, especially animal science and conservation, estimation helps us accurately describe things like population numbers and habitat areas.

For example, the speartooth shark is listed as an endangered species with only 2,500 individuals left in the wild. However, it is very difficult to know exactly how many individuals there are. It might be between 2,448 or 2,532 individuals, but by estimating or rounding to 2,500, we can get a general and accurate idea of how many speartooth sharks are left in the wild.

PART 2. UNDERSTANDING PLACE VALUE **20-30 mins**

Whole Numbers

Whole numbers are natural numbers without a fraction (i.e., no decimal). Before we can start rounding, it is important to recognize each "place" in a number. Every number has a place value. Take, for example, the number 1,234. Each digit is a "place" in the number.

1 → thousands
2 → hundreds
3 → tens
4 → one

If we add the numbers 5 and 6 to the beginning, the number will become 561,234. Now, 4 is still in the ones place, 3 is still in the tens place, 2 is still in the hundreds place, and 1 is still in the thousands place. But now, the 6 is in the ten thousand place, and the 5 is the hundred thousand place.

Keep in mind that numbers with only one digit still have numbers in the tens, hundreds, and thousands place – that number is 0, which is just hanging out and holding the space. "4" is really 0004. "11" is really 0011, etc.

What about bigger numbers? Consider a number in the billions: 1,234,567,890. Every digit is still a "place" in the number.

1 → billions
2 → hundred millions
3 → ten millions
4 → millions
5 → hundred thousands
6 → ten thousands
7 → thousands
8 → hundreds
9 → tens
0 → one

In Class Examples

Below are the total miles five sharks have traveled. Determine which digits are in the ones, tens, hundreds, thousands, and ten thousands places. (10-15 minutes)

1. **White shark Genie** – 4,964 mi (7,989 km)
   Answer (miles): *ones - 4, tens - 6, hundreds - 9, thousands - 4, ten thousands – 0*
   Answer (km): *ones – 9, tens – 8, hundreds – 8, thousands – 7, ten thousands - 0*

2. **White shark Mary Lee** – 15,793 mi (25,416 km)
   Answer (miles): *ones - 3, tens - 9, hundreds - 7, thousands - 5, ten thousands – 1*
   Answer (km): *ones – 6, tens – 1, hundreds – 4, thousands – 5, ten thousands - 2*

3. **White shark Lydia** – 25,405 mi (40,885 km)
   Answer (miles): *ones - 5, tens - 0, hundreds - 4, thousands - 5, ten thousands – 2*
   Answer (km): *ones – 5, tens – 8, hundreds – 8, thousands – 0, ten thousands - 4*

4. **Tiger shark Miss Michalove** – 151 mi (243 km)
   Answer (miles): *ones - 1, tens - 5, hundreds - 1, thousands - 0, ten thousands – 0*
   Answer (km): *ones – 3, tens – 4, hundreds – 2, thousands – 0, ten thousands - 0*

5. **Tiger shark Al** – 579 mi (932 km)
   Answer (miles): *ones - 9, tens - 7, hundreds - 5, thousands - 0, ten thousands – 0*
   Answer (km): *ones – 2, tens – 3, hundreds – 9, thousands –0, ten thousands - 0*

Decimals

A decimal is a number written with a dot separating the whole number from the fractional number. The dot between the whole number and fractional number is called a decimal point (Figure 1). Just like whole numbers, decimals have their own place value.

Consider the number 1.234. One is the whole number, and .234 is the fractional. Since .234 is not a whole number, their place values end in "th". See figure 1.

1 → ones
• → decimal point
2 → tenths
3 → hundredths
4 → thousandths

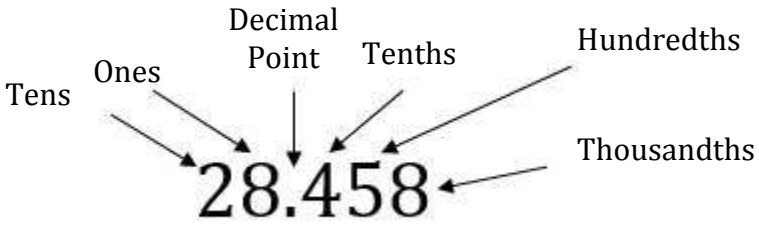


Figure 1. Whole numbers and fractions with place values.

Again, just like with whole numbers, decimals with only one digit after the decimal will still have numbers in the hundredths and thousandths place – that number is 0, which is just hanging out and holding the space. "0.4" is really 0.400. "0.11" is really 0.110, etc.

In Class Examples

Below are the total miles five sharks have traveled. Determine which digits are in the tenths, hundredths, and thousandths places. (10-20 minutes)

1. **Blue shark Beamer** – 9003.672 mi (44,490.005 km)
   Answer (mi): *tenths - 6, hundredths - 7, thousandths – 2*
   Answer (km): *tenths - 0, hundredths - 0, thousandths - 5*

2. **Silky shark Fernanda** – 355.592 mi (572.270 km)
   Answer (mi): *tenths - 5, hundredths - 9, thousandths – 2*
   Answer (km): *tenths - 2, hundredths - 7, thousandths - 0*

3. **Blue shark Michelle** – 742.438 mi (1,194.838 km)
   Answer (mi): *tenths - 4, hundredths - 3, thousandths – 8*
   Answer (km): *tenths - 8, hundredths - 8, thousandths - 8*

4. **White shark Courage** – 12,816.835 mi (20,626.697 km)
   Answer (mi): *tenths - 8, hundredths - 3, thousandths – 5*
   Answer (km): *tenths - 6, hundredths - 9, thousandths - 7*

5. **White shark Madiba** – 3,537.4 mi (5,692.893 km)
   Answer (mi): *tenths - 4, hundredths - 0, thousandths – 0*
   Answer (km): *tenths - 8, hundredths - 9, thousandths - 3*

In Class Activity – The Place Value Game (15 – 30 minutes)

Materials – For this game, each group will need a set of digit cards, 0-9 (if applicable, include decimal cards).

This activity can be done as a whole class demonstration or they can work in smaller groups to create the numbers. Each group should be given a set of digit cards. The teacher should call out a number and the students should work together to create the number using their digit cards. Once each group has the number created, the teacher should ask a variety of place questions regarding the number.

Example: Call out the number 1,352. Possible questions to ask the class are "What number is in the tens place?" and "What is the place of the three?"

Enrichment: If you wanted to take it a step further and had already introduced rounding you could also ask questions like "What place would you look at if you were rounding this number to the nearest ten?" or "What would be this number rounded to the nearest hundred?"

PART 3. ROUNDING NUMBERS UP AND DOWN **30-45 mins**

Whole Numbers

Once the class understands place value, you can start to talk about rounding. Rounding is when we change a number to an easier value. *Ask the class to quickly add 37 + 54 in their head. Time how long it takes them. Next, round the numbers to 40 and 50. Time how long it takes the class to add 40 + 50. Ask them, which was easiest? Why?*

But how do we decide to round 37 up to 40 and 54 down to 50?

Each number is a helper. Helper number tell you if you should round up or down in your estimation. Digits between 1 and 4 are closer to 0, so we round down. Digits between 5 and 9 are closer to 10, so we round up. The helper number is always the digit in the place value smaller than the one rounding. For example, if you are rounding to the tens, your helper number is the digit in the ones place. If you are rounding to the hundreds, your helper number is the digit in the tens place. If you are rounding to the thousands, your helper number is the digit in the hundreds place, and so on).

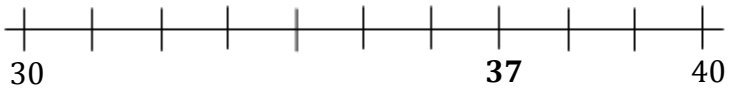
Just remember, never round down to 0. If you are trying to decide if you should round a single digit number between 1 and 4, do not round down to 0. Instead, leave the number exactly as it is.

For example, if you were to round 1.23 to the nearest tenths, your new number would be 1.2.

When trying to round, it might be helpful at first to put everything on a number line.

Example 1. Use the number line to round 37 to the nearest ten.

Step 1. Plot 37 on the number line.

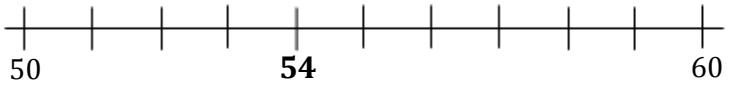


37 is closer to 40 than it is to 30. This shows us we need to round up.

Step 2. We can check our work by looking at the *helper number* in the ones place. Seven is between 5 and 9, so we definitely know we were correct in rounding up.
Answer: *37 rounded to the tens place is 40.*

Example 2. Use the number line to round 54 to the nearest ten.

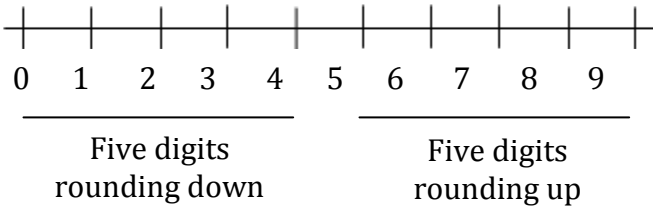
Step 1. Plot 54 on the number line.



54 is closer to 50 than it is to 60. This shows us we need to round down.

Step 2. We can check our work by looking at the helper number in the ones place. 4 is between 1 and 4, so we definitely know we were correct in rounding down.
Answer*: 54 rounded to the tens place is 50.*

So why does 5 tell us to round up when it is equally close to 0 and to 10? This is because rounding is done from 0 to 9. When you look at a number line, you can see there are five digits between 0 and 4, and five digits between 5 and 9. This makes 5 closer to 9 than to 0.



Now let's round to the nearest hundred! This is the same concept as rounding to the tens, only we will focus on the number in the hundreds place and its helper number in the tens place. The next examples will not include a number line, but if students need a hint, feel free to draw one.

Example 3. Round mako shark April's weight, 103 lbs (166 km), to the nearest hundred.

Step 1. What number is in the hundreds place?
1

Step 2. What is the helper number (tens place)?
0 (for km: 6)

Step 3. Does the helper number tell us to round up or down?
0 is between 0 and 4, so we need to round down.
(for km: 6 is between 5 and 9, so we need to round up)

Answer: *103 rounded to the hundreds place is 100.*
(for km: 166 rounded to the hundreds place is 200.)

Example 4. Round tiger shark Fritz's weight, 425 lbs (193 kg), to the nearest hundred.

Step 1. What number is in the hundreds place?
4 (1 for kg)

Step 2. What is the helper number (tens place)?
2 (9 for kg)

Step 3. Does the helper number tell us to round up or down?
2 is between 0 and 4, so we need to round down.
(for km: 9 is between 5 and 9 so we need to round up.)

Answer: *425 rounded to the nearest hundred is 400.*
(for km: 193 rounded to the nearest hundred is 200.)

Now let's round to the nearest hundred using a four digit number.

Example 5. White shark Success weighs 3,583 lbs (1,625 kg). Round her weight to the nearest hundred.

Step 1. What number is in the hundreds place?
5 (6 for kg)

Step 2. What is the helper number (tens place)?
8 (2 for kg)

Step 3. Does the helper number tell us to round up or down?
8 is between 5 and 9, so we need to round up.
(for kg: 2 is between 0 and 4 so we need to round down.)

Answer: *3,583 rounded to the nearest hundred is 3,600.*
(for kg: 1,600 rounded to the nearest hundred is 1,600.)

In Class Examples

Round the shark weights to the tens and hundreds.

1. **White shark Lisha** – 1,337 lbs (606 kg)
   Answer: *1,340 lbs (610 kg) & 1,300 lbs (600 kg)*

2. **White shark Edna** – 2,803 lbs (1,271 kg)
   Answer: *2,800 lbs (1,270 kg) & 2,800 lbs (1,300 kg)*

3. **Bull shark Lori Anne** – 284 lbs (129 kg)
   Answer: *280 lbs (130 kg) & 300 lbs (100 kg)*

4. **Silky shark Encantada** – 151 lbs (68 kg)
   Answer: *150 lbs (70 kg) & 200 lbs (100 kg)*

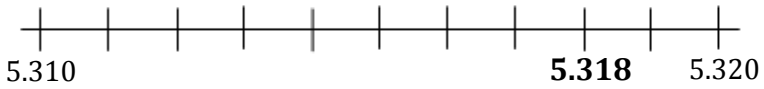
5. **White shark Redemption** – 826 lbs (375 kg)
   Answer: *820 lbs (380 kg) & 800 lbs (400 kg)*

Decimals

Rounding a decimal is just like rounding a whole number. We are still going to first look at the number in the place value we want to round to, then look at the helper number on the right. Let's try some examples using a number line.

Example 6. Tiger shark Jaimie has traveled 5.318 miles (8.558 km) in the last 24 hours. What is the mileage rounded to the nearest hundredth?

Step 1. Plot 5.318 on the number line.



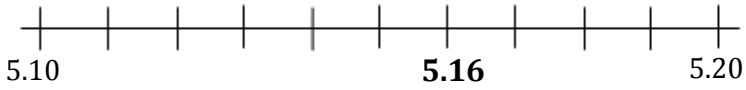
5.318 is closer to 5.320 than it is to 5.310. This shows us we need to round up.

Step 2. We can check our work by looking at the helper number in the thousandths place. 8 is between 5 and 9, so we definitely know we were correct in rounding up.

Answer: *5.318 rounded to the hundredths place is 5.320.*
(for km: 8.558 rounded to the hundredths place is 8.560.)

Example 7. Hammerhead shark Nemo is 5.16 feet (1.572 m) long. What is the length in feet rounded to the nearest tenth?

Step 1. Plot 5.16 on the number line.



5.16 is closer to 5.20 than it is to 5.10. This shows us we need to round up.

Step 2. We can check our work by looking at the helper number in the hundredths place. 6 is between 5 and 9, so we definitely know we were correct in rounding up.

Answer: *5.16 rounded to the tenths place is 5.20.*
(for km: 1.572 rounded to the tenths place is 1.60.)

The next examples will not include a number line, but if students need a hint, feel free to draw one.

Example 8. White shark Courage has traveled a total of 12,816.835 miles (20,626.697 km) since his tagging in May of 2012. Round his mileage to the nearest hundredth.

Step 1. What number is in the hundredths place?
3 (for km: 9)

Step 2. What is the helper number (thousandths place)?
5 (for km: 7)

Step 3. Does the helper number tell us to round up or down?
5 is between 5 and 9, so we need to round up.
(for km: 7 is between 5 and 9, so we need to round up)

Answer: *12,816.835 rounded to the nearest hundredth is 12,816.34.*
(for km: 20,626.697 rounded to the nearest hundredth is 20,626.70.)

Example 9. White shark Poseidon has traveled 6,120.062 miles (9,849.285 km) since he was tagged on March 20th, 2012. Round his mileage to the nearest tenth.

Step 1. What number is in the tenths place?
0 (for km: 2)

Step 2. What is the helper number (hundredths place)?
6 (for km: 8)

Step 3. Does the helper number tell us to round up or down?
6 is between 5 and 9, so we need to round up.
(for km: 6 is between 5 and 9, so we need to round up)

Answer: *6,120.062 rounded to the nearest tenth is 6,120.100.*
(for km: 9,849.285 rounded to the nearest tenth is 9,849.300.)

Decimals can also be rounded to the nearest whole number. The approach to this is the same as the examples we have been practicing, only this time the values we will focus on is the digit in the ones place and the helper number in the tenths place.

Example 10. White shark Perseverance has traveled 4,327.633 miles (6,964.650 km) since he was tagged in March of 2012. Round his mileage to the nearest whole number.

Step 1. What number is in the ones place?
7 (for km: 4)

Step 2. What is the helper number (tenths place)?
6 (for km: 6)

Step 3. Does the helper number tell us to round up or down?
6 is between 5 and 9, so we need to round up.

Answer: *4,327.633 rounded to the nearest whole number is 4,327.*
(for km: 6,964.650 rounded to the nearest whole number is 6,965.)

Example 11. Hammerhead shark Caroline is 4.41 feet (1.344 m) long. Round her length to the nearest whole number.

Step 1. What number is in the ones place?
4 (for km: 1)

Step 2. What is the helper number (tenths place)?
4 (for km: 3)

Step 3. Does the helper number tell us to round up or down?
4 is between 0 and 4, so we need to round down.
(for km: 3 is between 0 and 4, so we need to round down)

Answer. *4.41 rounded to the nearest whole number is 4.*
(for km: 1.344 rounded to the nearest whole number is 1.)

In Class Examples

Below are the total miles three sharks have traveled. Round each number to the nearest hundredth, tenth, and whole number.

1. **White shark Betsy** – 3,551.962 mi (5,716.329 km)
   Answer (mi): *hundredth – 3,551.96, tenth – 3,5512.0, whole number - 3,5512*
   Answer (km): *hundredth – 5,716.33, tenth – 5,716.3, whole number – 5,716*

2. **Blacktip shark Sylvia** – 632.611 mi (1,018.089 km)
   Answer (mi): *hundredth – 632.61, tenth – 632.6, whole number – 633*
   Answer (km): *hundredth* – 1,018.09, *tenth* – 1,018.1, *whole number* – 1,018

3. **Blacktip shark Isabela** – 129.930 mi (209.102 km)
   Answer (mi): *hundredth – 129.93, tenth – 129.9, whole number – 130*
   Answer (km): *hundredth* – 209.10, *tenth* – 209.1, *whole number* – 209

PART 4. REVIEW

Place Value

Students should now be able to recognize a digits place value from the thousandths place to the billions place. As a class, label the place values for the number 8,351,061,229.264

- billions → 8
- hundred million → 3
- ten million → 5
- millions → 1
- hundred thousand → 0
- ten thousand → 6
- thousands → 1
- hundreds → 2
- tens → 2
- one → 9
- tenths → 2
- hundredths → 6
- thousandths → 4

Rounding

Students should be able to answer the following questions:

- What is an estimation? *To make an approximate calculation based on rounding*
- What is a helper number and where do you find it? *Tells you if you should round up or down in your estimation. A helper number is always the digit in the place value smaller than the one rounding.*
- How do you know when to round a number up? *Digits between 5 and 9 are closer to 10, so we round up.*
- How do you know when to round a number down? *Digits between 1 and 4 are closer to 0, so we round down.*
- What are some situations where you would want to round numbers? *Shark population size, number of cupcakes to bring to a party, etc.*
- What are some situations where you would *not* want to round numbers? *Whenever you need to know an exact number. For example, clothing size.*

Grade Level: 3-5
Time Estimate: 30-60 mins

ROUNDING / ACTIVITY 1. INTRODUCING OCEARCH

Introduction

Introduce your class to OCEARCH by having each student research a shark found on the OCEARCH Shark Tracker™ website. The students will be able to show off their research skills and use their knowledge of place value and rounding while displaying their creativity by designing an informational poster highlighting their shark's information. Students can present their project to the class or display as an exhibition.

MATERIALS

- Computer with Internet access (students may work In groups if computers are limited)
- Poster board or large sheet of paper
- Craft supplies

INSTRUCTIONS

1. Assign each student to a shark found on the OCEARCH Shark Tracker™ website.
    a. Go to www.ocearch.org
    b. On left side of the screen you will find the Global Shark Tracker ™ Information.
    c. To find the data for each individual shark, click on "Sharks." The sharks are listed in alphabetical order.
    d. Once you have selected the shark, click "Track Sharks" at the bottom of the tracker box.
    e. To get the information needed for the table, click on the ping of the most recent pink of the shark (largest dot). This gives you the gender of the shark. To get other information, simply "view more."
    f. The length and weight can be found in the tracker box by scrolling down.
    g. To track your next shark just click on the Global Shark Tracker™ again.
2. Students will use the shark tracker to fill in the Data Sheet (on the following page) with information regarding their shark. The Data Sheet will be turned in with the final presentation so the teacher can check the accuracy of the numbers.
3. Once students have researched the specific information about their shark, they can research interesting facts about the species.
4. Students must also find something with an approximate equivalent weight to their assigned shark (the average weight of this new object or animal is acceptable, such as "this shark weighs approximately the same as a small car!"). If they find an exact weight on, for example, the car, they should round up or down to the nearest hundred to compare it to the shark's weight. *For example, Helen the shark weighs approximately 800 lbs (362.87 kg), which is the same as about 100 gallon jugs of water.*
5. Students must also find something that is approximately the same distance (to the nearest thousand) from school as the shark has traveled. *For example, Helen the shark has traveled approximately 1,000 miles (1,609.34 km), which is the same distance from Atlanta to Denver.*
6. Using the researched information, students must create an informational poster containing the information from their Data Sheet, interesting facts about their species, equivalent weights and distances, and a hand-drawn or printed image of their shark. Encourage students to be accurate, but creative, in designing their posters.

Name: _____ Date: _____

ACTIVITY 1. INTRODUCING OCEARCH DATA SHEET

Instructions

Use the OCEARCH Global Shark Tracker™ to fill in the following information about your assigned shark. Turn this completed data sheet in with your final presentation.

Basic Information

Shark Name: _____ Species: _____

Gender: _____ Date Tagged: _____

Tagging Location: _____

Measurements

Length: _____
Approximate length rounded to nearest whole number: _____

Weight: _____
Approximate weight rounded to nearest hundred: _____

Total miles traveled: _____
Approximate total miles traveled rounded to nearest thousand: _____
*If your shark has not yet traveled over 1,000 miles (or kilometers) round to nearest hundred.