

UNIT FOUR

OVERVIEW

	FOCUS	STANDARD
WEEK 1	Intro to Division: Models, Equal Groups, Relate Subtraction, Arrays	TEKS: 3.4HK CCSS: 3.0A.A.2, 3.0A.A.3
WEEK 2	Division Strategies: Related Facts, Rules for 1 and 0, Even and Odd, Dividing by 2	TEKS: 3.4IK CCSS: 3.0A.A.2, 3.0A.A.3, 3.0A.B.5, 3.0A.B.6
WEEK 3	Division Facts: Fact Fluency and Practice	TEKS: 3.4F CCSS: 3.0A.B.6, 3.0A.C.7
WEEK 4	Division One-Step and Multi-Step Word Problems	TEKS: 3.4K, 3.5B CCSS: 3.0A.A.3, 3.0A.D.8

DAILY LESSON PLANS

-20 Days of Lesson Plans for: Intro to Division, Division Strategies, Division Fact Fluency, One-Step/Multi-Step Word Problems

-STANDARDS ALIGNED to Common Core and TEKS

INTRO TO DIVISION **DIVISION STRATEGIES**

Day One Day Two

INTRO TO DIVISION Day One	INTRO TO DIVISION Day Two	DIVISION STRATEGIES Day Three	DIVISION STRATEGIES Day Four
FOCUS SKILL	OBJECTIVE	FOCUS SKILL	OBJECTIVE
Model Division	I can show division as equal sharing	Repeated Subtraction	I can show division as
VOCABULARY WORDS	WORD PROBLEM	VOCABULARY WORDS	WORD PROBLEM
Divide, share equally, divisor, dividend, quotient	Carles has 2 goals to win for his team and he gets 4. How many goals does he need to score?	Repeated Subtraction: I have a number line to divide	Repeated Subtraction: I have a number line to divide. You use the cards provided.
MINILESSON	ACTIVITY	MINILESSON	ACTIVITY
Introduce division to the class. Tell students that we are going to learn how to divide objects equally this week. Discuss multiplication and how we make equal groups. We are going to do that this week, except we will be starting with the total amount and figuring out how many groups we need or how many we will need in each group.	Introduce how we can use a number line to divide. You use the cards provided.	Review Related Facts from yesterday	Related Fact Ice Cream: Students either choose related facts or you sign them using the ice cream from Monday. Students write their numbers on the
FOCUS SKILL	OBJECTIVE	FOCUS SKILL	OBJECTIVE
Equal Groups	I can	Division Rules for 0 and 1	I can use different strategies to divide
VOCABULARY WORDS	WORD PROBLEM	VOCABULARY WORDS	WORD PROBLEM
Divide, equal groups, share equally		Divide by 2	I can use different strategies to divide
MINILESSON	ACTIVITY	MINILESSON	ACTIVITY
Use index cards and manipulatives to show students how you can divide into equal groups. If my problem is 12 divided by 3, I need 12 counters and 3 groups. I split the counters evenly among the groups until I run out of them. I will see that I have 4 in each group. The index cards represent how many groups you have, so that will change depending upon the problem. Give students about 6 index cards and at least 30 counters. Practice the division equations provided with the index cards and counters. Remind students to change up how many groups they have depending on the problem.	Give students a set of 6 pipe cleaners and 12 pipe cleaners. Give students a set of 12 pipe cleaners and 6 pipe cleaners. Give students a set of 12 pipe cleaners and 12 pipe cleaners. Give students a set of 12 pipe cleaners and 12 pipe cleaners.	Introduce the four division rules:	Roll to Divide: Students need dice or you use the spinners I earlier this week. Students roll a number and look at the number. They are using 1 rule to make an equation. Students use the number to fill in the blank then solve the equation.
FOCUS SKILL	OBJECTIVE	FOCUS SKILL	OBJECTIVE
Related Facts	I can use	1. a number divided by itself equals 1	2. a number divided by 1 equals the number
VOCABULARY WORDS	WORD PROBLEM	VOCABULARY WORDS	WORD PROBLEM
Divide, equal, groups, share equally		3. zero divided by a number equals zero	4. you cannot divide a number by 0
MINILESSON	ACTIVITY	MINILESSON	ACTIVITY
Introduce related facts to the class. Discuss how numbers become a part of a related fact family. Use counters to create division problems (ex: Use 10 counters to make an array with 2 equal rows). Discuss how many counters are in each row. Write the division equation for that array and the matching multiplication equation. Use a few of the triangle related fact cards to generate related facts.	Each set of 12 pipe cleaners in a bag can use a set of 6 (they are messy) or a set of 12 (they are messy) pipe cleaners. Students write the matching division and multiplication equations. Students can use counters to create arrays to match each problem.	Provide Twizzlers and round candy such as M&M's or Skittles. Students make two circles with their rope candy. Students use the round candy to split into two equal groups. You can also use pipe cleaners and counters rather than food.	Divide BINGO: Students solve the dividing by 2 equations and write the quotients. Students spin their equations and order them on their BINGO board in any order. This allows all students to have different boards for the BINGO calling. Call out the quotients, students call out number. The student with four in a row is the winner. You can clear boards and continue playing until time runs out.
FOCUS SKILL	OBJECTIVE	FOCUS SKILL	OBJECTIVE
Divide by 2	I can use different strategies to divide	Spin and Divide: Students glue under the top title only so that the two flaps lift up. Students spin to find their divisor. Students write that in the division equation and solve. Students will sort the equations based on whether the quotients are even or odd.	

MINILESSONS

-Ideas and materials on how to teach the concepts



Modeling Division

Problem #1: $9 \div 3 = 3$ (3 circles)

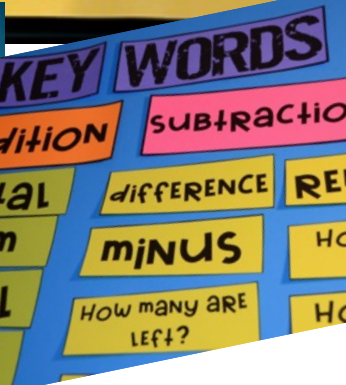
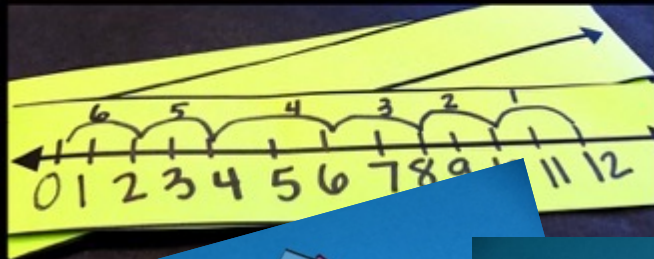
Problem #2: $12 \div 4 = 3$ (3 circles)

Problem #3: $14 \div 7 = 2$ (2 circles)

Problem #4: $16 \div 4 = 4$ (4 circles)

Problem #5: $21 \div 3 = 7$ (7 circles)

has 21 bouncy balls. He puts an equal number of bouncy balls into 3 cups. How many bouncy balls does Carter put in each cup?



FUN ACTIVITIES

Easy to Print Activities, Games, and Fun Stuff that help students stay engaged during your math block



DAILY WORD PROBLEMS

20 Word Problems that fit the skills included

WORD PROBLEM- DAY FIVE

There are 32 students waiting to be put into groups for a project. Name at least one way that the teacher can equally group the students.

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WORD PROBLEM- DAY THREE

There were 25 monkeys at the zoo. They had five cages that they filled with equal amounts of monkeys. How many monkeys were in each cage?

WORD PROBLEM- DAY FOUR

There are 30 people waiting in line to ride the roller coaster. Each roller coaster cart holds 3 people. How many carts for the 30 people to ride?

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They had five cages of monkeys. How many monkeys in each cage?

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WORD PROBLEM- DAY ONE

There are 12 water bottles to give out to the runner. Each runner got 2 bottles. How many runners?

12 divided in the same set of 2 $12 \div 2 = 6$

to the w many

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12 divided in the same set of 2 $12 \div 2 = 6$

to the w many

12 divided in the same set of 2 related facts as $12 \div 2 = 6$

12 tires to put on cars. How many cars?

Cara has 21 guest tables to seat her

student.

There are 30 people waiting in line to ride the roller coaster. Each roller coaster cart holds 3 people. How many carts will it take for the 30 people to ride?

The teacher

Cara has 21 guest tables to seat her

The teacher had 24 pencils. He gave to the student. How many students received pencils?

Shira has 30 stickers. She put 10 stickers on each page. How many pages did Shira use for her stickers?

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Shira has 30 stickers. She put 10 stickers on each page. How many pages did Shira use for her stickers?

Cara has 21 guest tables to seat her

guests at each table. How many guests will sit at each table?

Shira has 30 stickers. She put 10 stickers on each page. How many pages did Shira use for her stickers?


Carson works in a tire shop. He has 20 tires to put on today. If each car needs 4 tires, how many cars will he work on today?


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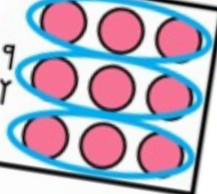
Carson works in a tire shop. He has 20 tires to put on today. If each car needs 4 tires, how many cars will he work on today?


VOCABULARY CARDS

Cards that you can display on a math word wall or bulletin board

SHARE EQUALLY 

REPEATED SUBTRACTION 
 $6 \div 2 = 3$


Divide $9 \div 3$  SHARE 9 EQUALLY

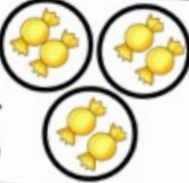
Dividend  $8 \div 2 = 4$


Equation


FACTOR $9 \times 3 = 27$

PRODUCT $4 \times 5 = 20$



MULTIPLY 2×3 2 GROUPS of 3 

equal GROUPS 

Divisor $8 \div 2 = 4$ 




Quotient $8 \div 2 = 4$ 

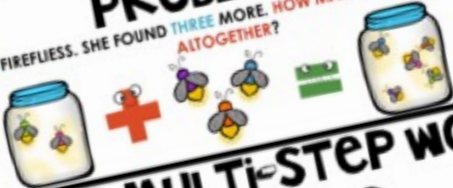

RELATED FACTS $12 \div 2 = 6$ & $12 \div 6 = 2$

Divisible  $6 \div 2 = ?$  ~~$5 \div 2 = ?$~~

I CAN STATEMENTS

I Can Statements can be displayed throughout the unit.

I CAN:	
SHOW DIVISION AS EQUAL SHARING	
$4 \div 2 = 2$	
USE DIFFERENT STRATEGIES TO DIVIDE	
DIVIDE WITH FLUENCY	
$12 \div 3 = 4$	
$6 \div 2 = 3$	$9 \div 3 = 3$

SOLVE ONE-STEP WORD PROBLEMS
JENN HAS TWO FIREFLIES. SHE FOUND THREE MORE. HOW MANY FIREFLIES DOES JENN HAVE ALTOGETHER?

SOLVE MULTI-STEP WORD PROBLEMS
KEENAN HAD FOUR GUMBALLS. HE CHEWED ONE. THEN HIS FRIEND MARK GAVE HIM TWO MORE. HOW MANY GUMBALLS DOES KEENAN HAVE?


QUICK ASSESSMENTS

DIVISION

Name: _____

1. What is the answer to a division called?

- a. dividend
- b. quotient
- c. product

2. What does it mean to divide?

- a. add up equal groups
- b. separate into two parts
- c. splitting into equal groups or parts

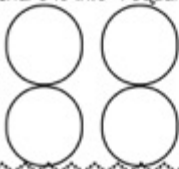
3. Solve the problems. Draw models if needed.

$12 \div 2 = \underline{\quad}$

$24 \div 3 = \underline{\quad}$

4. Can I share 15 into 4 equal groups?

- a. yes
- b. no



5. Which division equation matches the number line?

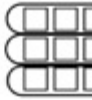


- a. $12 \div 2 = 6$
- b. $6 \div 3 = 2$
- c. $6 \div 2 = 3$

6. There were 16 out to 4 children. same amount of many cookies did receive?

- a. 3
- b. 4
- c. 16
- d. 8

7. Circle the divi matches the arr:



- a. $15 \div 5 = 3$
- b. $16 \div 4 = 4$
- c. $12 \div 3 = 4$

8. Write two wa into equal groups



DIVISION STRATEGIES

Name: _____

1. Which three numbers can be in a related fact family?

- a. 3, 4, 15
- b. 2, 7, 18
- c. 9, 3, 27

2. Are these related facts correct?

$4 \times 5 = 20$
 $5 \times 4 = 20$
 $20 \div 5 = 4$
 $20 \div 4 = 5$

- a. yes
- b. no

3. Write the related f these three numbers:



4. Which fact is relate $48 \div 6 = \underline{\quad}$

- a. $6 \times 7 = 48$
- b. $6 \times 8 = 48$

5. What is the rule for dividing a number by zero?

- a. any number divided by zero equals zero
- b. any number divided by itself equals zero
- c. you cannot divide a number by zero

6. There were 0 birds in the 8 bird cages. How many birds were there?

- a. 6

DIVISION FACTS

Name: _____

Solve in one minute:

1. $\underline{\quad} 64 + 8 =$

2. $\underline{\quad} 81 + 9 =$

3. $\underline{\quad} 16 + 2 =$

4. $\underline{\quad} 80 + 10 =$

5. $\underline{\quad} 55 + 5 =$

6. $\underline{\quad} 36 + 6 =$

7. $\underline{\quad} 40 + 8 =$

8. $\underline{\quad} 28 + 7 =$

9. $\underline{\quad} 56 + 7 =$

10. $\underline{\quad} 36 + 9 =$

11. $\underline{\quad} 27 + 3 =$

12. $\underline{\quad} 28 + 4 =$

13. $\underline{\quad} 2 + 2 =$

14. $\underline{\quad} 49 + 7 =$

15. Olivia had 8 math problems every night for five nights. If she can fit 5 problems on each page, how many pages will she need to complete her homework for the week?

16. Grams and Emily were wrapping birthday presents for her cousins. They have 3 spools of string to make bows. Each spool has 20 inches of string. If each bow requires 9 inches of string, how many bows can they make?

WEEK ONE

YES! I CAN SHARE EQUALLY!

NOPE! I CAN'T SHARE EQUALLY!

DIVIDING with
↓
EQUAL GROUPS
REPEATED SUBTRACTION
ARRAYS

$20 \div 4 = 5$

$10 \div 4 = 4$

$12 \div 2 = 6$

$6 \div 2 = 3$

SOLVE IT! DIVISION

Use a number line to divide
 $21 \div 3 = 7$

Use a number line to divide
 $14 \div 2 = 7$

Use a number line to divide

Spin & Hop

$12 \div 2 = 6$

$8 \div 4 = 2$

$14 \div 2 = 7$

$20 \div 4 = 5$

SOLVE IT! #1 **SOLVE IT! #2** **SOLVE IT! #3**

SOLVE IT! #4 **SOLVE IT! #5** **SOLVE IT! #6**

$30 \div 4 = 8$ $24 \div 4 = 6$ $42 \div 7 = 6$

dividend: 14, divisor: 2, quotient: 7

division sign, equals

AN "ARRAY" OF SUNSHINE COOKIES YOUR WAY!
USING ARRAYS TO DIVIDE

DIVIDE INTO equal groups

Modeling Division

$7 \div 3 = 3$

$12 \div 4 = 3$

$21 \div 3 = 7$

$16 \div 4 = 4$

I CAN USE ARRAYS TO DIVIDE

$2 \div 6 = 2$

$9 \div 3 = 3$

I CAN USE ARRAYS TO DIVIDE

I CAN USE ARRAYS TO DIVIDE

DIVISION

1. What does it mean to divide?
2. What does it mean to divide into equal groups?
3. Solve the problems three ways if needed.
4. Write the division equation that matches the array.

2. Circle the division equation that matches the array.

8. Write two ways to divide 20 into equal groups.

$10 \div 2 = 5$ $10 \div 4 = 5$

WEEK TWO

100 IN THE FAMILY
7, 4, 6, 5, 30
9, 4, 36, 8, 7, 56

NO RELATION HERE
3, 4, 2, 4, 2, 2, 6, 4
3, 9, 26

ROLL TO DIVIDE

7	+	1	=	7
14	+	19	=	0
4	+	4	=	1
8	+	12	=	0
15	+	1	=	15
2	+	1	=	2
30	+	20	=	1
8	+	9	=	6
7	+	1	=	7
6	+	6	=	1
5	+	3	=	1

9 × 5 = 45
5 × 9 = 45
45 ÷ 5 = 9

7 × 6 = 42
42 ÷ 7 = 6
42 ÷ 6 = 7
7 = 42

divide

$2 = 26 \div 2 =$	$18 \div 2 =$	$8 \div 2 =$
13	9	4
$2 = 4 \div 2 =$	$28 \div 2 =$	$24 \div 2 =$
2	14	12
$2 = 30 \div 2 =$	$14 \div 2 =$	$20 \div 2 =$
15	7	10
$2 = 12 \div 2 =$	$22 \div 2 =$	$32 \div 2 =$
6	11	16

THE DIVISION DUDE

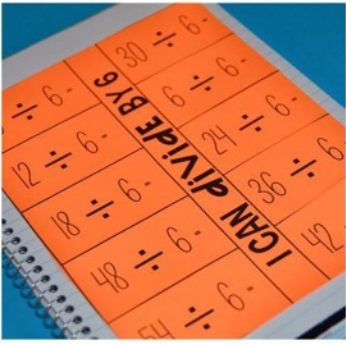
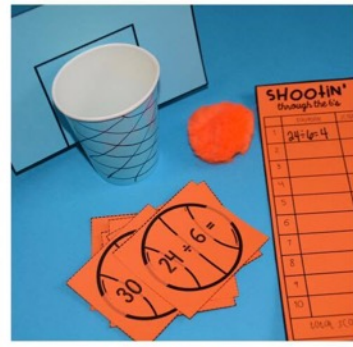
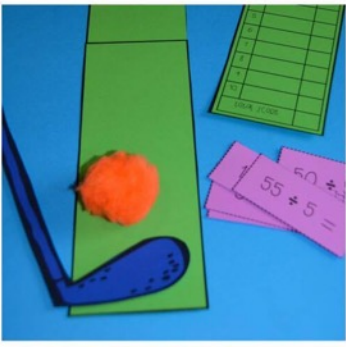
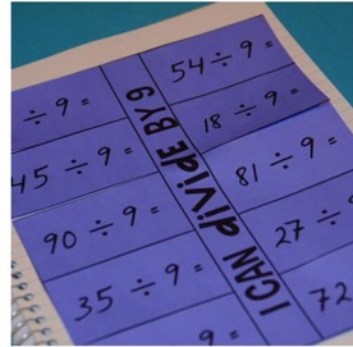
DIVISION RULES

- A NUMBER DIVIDED BY ONE
- $10 \div 10 = 1$
- $8 \div 8 = 1$
- $7 \div 7 = 1$
- $9 \div 9 = 1$
- ZERO DIVIDED BY A NUMBER
- I CAN DO EVEN QUOTIENTS
- SPIN & DIVIDE

ROLL AGES

4, 5, 20	7, 2, 14
4, 5, 20	7, 2, 14
5, 4, 20	7, 2, 14
20, 5, 4	14, 2, 7
20, 4, 5	14, 7, 2

WEEK 3 & 4



WORD PROBLEMS

