Literature Vocabulary
habitat
oceans
colorful
blend
shore
tide pool
swamp
lake

Math Vocabulary
add
subtract
compare
regroup
tens
ones
math movie
fact families
compatible numbers

Materials
- Unifix or Linking cubes (two 1-color trains per student)
- **BLM TM** Fact Family Houses from TM Lesson (TV Teacher should have one filled out with all of the addition sentences.)

Time Clue
BB = 2 minutes
CI = 24 minutes
AC = 2 minutes

ELPS (*English Language Proficiency Standards*)
2A,2B,2F,2I,3A,3E,3H

CCRS (*College and Career Readiness Standards*)
ELA
II.B.1; III.B.1,2,3; IV.A.2,3; IV.B.1,2,3
MATH
I.A.1; I.B.1; VIII.B.1,2; IX.A.1; IX.B.1,2; IX.C.1,3; X.A.1,2
CROSS DISCIPLINARY
1.A.1,2; I.B.1,2,3,4; I.C.1,2,3; II.A2

Unit 2, Lesson 1

TV Lesson

Read objectives while pointing to the words in the math lesson objectives. After each math objective, show children what that means.

Math Objectives:
- Solve addition and subtraction problems.
- Recognize fact families.
- Understand what the equal sign means.

Language Objectives:
- Listen to the TV Teacher.
- Speak: Explain fact families and how they can help you learn basic facts.
- Speak: Discuss your solution strategies.
- Read TV Teacher's notes on the TV.
- Write the fact families.

Building Background, Math

TEACHER: We're going to learn more about Fact Families during this unit. You know, understanding Fact Families can help us in our addition and subtraction. When we know our facts quickly, we can spend more time thinking about the problems they are used in! Did you know boys and girls, that when you know a fact family, you know FOUR different math facts – two addition and two subtraction!

AZULITO: Oh, that sounds good to me! But there are only addition number sentences in our Fact Family houses for nine?

Comprehensible Input, Math

TEACHER: Well, then, let's find out those subtraction sentences. Let's make a 2-color train for our first Fact Family house of nine. Let's work on the 1, 8, 9 house. What would that train look like boys and girls? Please make one addition train for this family. *(pause)*

AZULITO: That would be one *(color)* cubes and eight *(color)* cubes. And if I flip the train over, I have eight *(color)* cubes and one *(color)* cube. It's the same train, but the cubes are in a different order.

TEACHER: Well done. Boys and girls, I can see that most of you agree with Azulito! Make sure you have a 1 + 8 = 9 train with your two colors of cubes. *(slight pause)* Now, subtract one *(pause)*. How many cubes do you have left?

🖥 SMART BOARD Create the models, number sentences and fact family houses.	**Unit 2, Lesson 1** **1ˢᵗ – 2ⁿᵈ** **TV Lesson** - continued **AZULITO:** That's easy, I have eight cubes left. **TEACHER**: We had nine cubes, we subtracted one cube, and we have eight cubes left. What would that number sentence look like boys and girls? Please tell your teacher. *(pause)* The number sentence is 9 – 1 = 8 *(read 9 subtract 1 = 8)*. Alright, put your fact family train back together again, This time, subtract the eight cubes. *(do so)* How many cubes do you have left? *(pause)* There is only one cube left. And how would you write that number sentence? Once again, please tell your classroom teacher. *(pause)* 9 – 8 = 1 *(read 9 subtract 8 = 1)*. Find your 1, 8, 9 fact family house. You should already have the two addition sentences for the family on the top floor, or the two lines on top in the house. What are those two addition sentences? Let's read them together. 1 + 8 = 9 8 + 1 = 9. Now we have our two subtraction sentences. They'll go on the lower floor of the house. Write the two subtraction sentences on the lower two lines. 9 – 1 = 8 *(9 subtract 1 = 8)* and 9 – 8 = 1. **AZULITO:** I see what you mean about knowing FOUR math facts. There are two addition and two subtraction for this house. WOW, all I have to do is remember one little fact family, and I have four different facts. I like this!! **TEACHER**: Let's investigate more fact families. Find the house for 2, 7, 9. (*Repeat the same process.*) (*Complete the chart with the subtraction problems using the same format, leaving 0 + 9 = 9 for last.*) **AZULITO:** We still have one house left. 0 + 9 = 0 **TEACHER:** We certainly do, Azulito. I left that for last because I wanted the boys and girls to see something very special about zero. Boys and girls, do you remember anything very special about adding and subtracting zero? Tell your classroom teacher what you know. *(pause)* Let's work with this one just a bit. The model is a little different.

TV Lesson - continued

First, let's make the model for 0 + 9 = 9. How would I do that boys and girls? What does that number sentence mean? *(pause)*

AZULITO: It means that I have NO cubes of one color and nine cubes of another.

TEACHER: Correct – everyone please make a 0 + 9 train *(pause and make yours)*. I have no *(color)* cubes, and I have nine *(color)* cubes. That makes nine cubes in all. And my number sentence is 0 + 9 = 9. It's harder to see the flip, but imagine that the zero color is at the end. *(flip)* Now what number sentence do we have?

AZULITO: Nine of one color and none of the other color. That would be 9 + 0 = 9.

TEACHER: Well done. Boys and girls, can you tell your Classroom Teacher what one of the subtraction sentences would be *(pause)*? 9 – 0 = 9. And the other subtraction sentence? *(pause)* 9 – 9 = 0.

Hmm, looking at these four number sentences, can you tell what is so special about the number zero? *(bit of a pause)*

AZULITO: Well, if I don't add anything to my cubes, then I have what I started with – zero means NO CUBES. And if I don't subtract anything from my cubes, then I have what I started with. Zero means NO CUBES.

TEACHER: Good thinking, Azulito. You explained that very well. When you add zero to any number or subtract zero from any number, you still have the same number. I know that I heard that same thinking from many of the boys and girls out there! GREAT JOB!

AZULITO: And speaking of explaining our thinking, I'd like to explain the Azulito Corner to you now *(do so)*.

TEACHER: Thank you, Azulito! We love to see your strategies for solving problems!

Objectives: And now before we go, let's review what we have learned today! *(do so)*

Azulito's Corner
Unit 2 Lesson 1
Tell us all the different strategies used today to solve your CGI problem. Share your class posters if you can.

Fact Family Houses

LM -TM Unit 2, Lesson 1
(One per student)

Fact Family Houses