

Kelli's Space Travel Learning Log

I'm traveling a solar path that leads to knowing fact family math!

10 5 6 7 8 9

I've visited these fact family planets. When I know that fact family I receive that fact family planet sticker! When I know ALL of the fact families I get a planet earth sticker!

This is my rocket. My rocket's name is Flash 7. These are the rocket stickers I've earned. Ask me how!

This is my favorite alien friend. His name is Max. These are the alien and spaceship stickers I've earned. Ask me how!

Award and reward stickers I've earned. Ask me what they're for.

High-Five Congratulations! **Kelli** has successfully completed our Fact Family Space Tour. Teacher: Mrs. Henderson Date: January 26

Fact Family Practice

Write the answers.

Kelli
Come blast off with me and learn a fact family!

7
5
2
5+2=7
2+5=7
7-2=5
7-5=2
Fact Family 7

7
5 2
5 2 7
2 5
Fact Family
BLAST OFF

Recording Sheet
Color in the Fact Family when you complete it.

5s 6s 7s
8s 9s 10s
Name: Kelli

My Itty Bitty Fact Family

6
7
8
9-7
9-8

It's T-Bar Time!

T is for Terrific

Fill in the missing number, that completes the fact family pair, so that when they are added together, they equal the number at the top of the T.

5 6
5 6
4 2
3 3

7 8 9 10
7 8 9 10
6 7 8 9
5 6 7 8
4 5 6 7
3 4 5 6

Kelli
YOU ARE TERRIFIC!

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Kelli
knows these fact families

5s 6s
7s 8s
9s 10s

CONGRATULATIONS!



What's A Fact Family?

Explanation Revamped for Rocket Ship Fact Family Packet



A fact family is made up of 3 numbers.

Just as in any family the members, or numbers, are related. In almost all cases there are at least four math facts to be made with them.

Fact Family Relationships

In the family 7, 3 and 10 they are related because you can add two of the numbers to get the last number.

- $7 + 3 = 10$

You can also switch the first two numbers, using the commutative property of addition, and still get the same answer.

- $3 + 7 = 10$

Fact Family Cousins

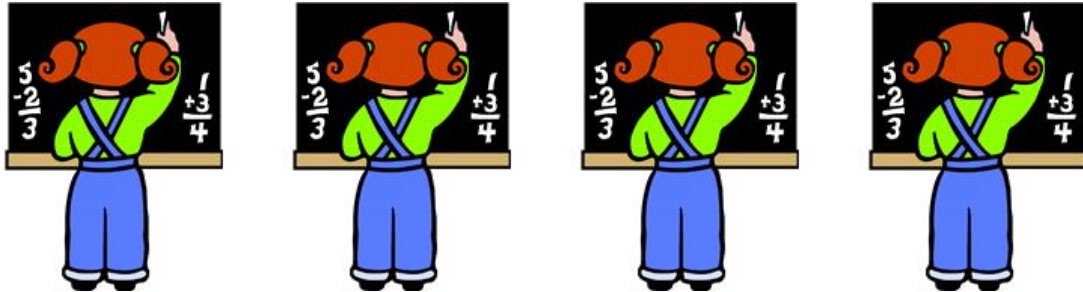
If addition is the direct relationship amongst these family members, then subtraction is the family cousin through the inverse property.

Subtraction is the opposite of addition, but it's still related. The problems still only uses the three members of the family.

- $10 - 3 = 7$
- $10 - 7 = 3$

Keeping Track of All Family Members

What's the big deal?



Once students know the relationships of the fact family members, it's easy for them to see what number is missing at a quick glance.

Solving addition and subtraction problems is then much easier and starts to become automatic.

For example, this problem:

- $7 + \underline{\quad} = 10$

Your child should quickly be able to recognize 3 as the missing family member.

Seeing fact families in a house or spaceship etc. are a great way to teach visual learners about the relationships among the three numbers in that family.

Knowing fact families, especially those, which create number sentences that add up to 10, are a key part of math.

Putting fact families in the rocket ship can help students learn the "tens facts" by heart.

The more opportunities you can think of to immerse kids in fact families, the easier it is for them to remember them, 'til the light bulb finally comes on.

"Practice makes perfect!" really rings true, when it comes to fact families, however, this can get rather boring.

"Worksheets" can quickly become "skill-drill and kill" sheets and is precisely why I don't call tabletop lessons "worksheets", but "skill sheets". Who wants to do work?

For example: *"Please do the worksheet on your desk."* *"Today we're having fun practicing a skill by playing a game."* See what I mean? What do you want to do?

To help students learn the ten's facts, have children list the Tens Facts, by



figuring out the combination of numbers that add up to 10. Begin by asking the question *"What do I need to add to 1 to make 10?"*. Be sure to list the inverse facts as well. For example, $1 + 9 = 10$, Does $9 + 1 = 10$ too?

I've already made schoolhouses, so I wanted to think of something else that would get students excited about practicing their fact families. Going on a journey into space and collecting stickers for their travel log sounded pretty fun to me.

In the top windows of their rocket, have students write the three numbers that make up the fact family. Children should write the largest number in the top window.

I used Tens Facts for my sample, starting with $1 + 9$, so the numbers in the windows are 10, 9 and 1.

Students complete the two addition problems, using the list they've created.

Once they've figured these out, the subtraction problems should be easy.

If you need to prompt, ask something along the lines of *"If I added 9 to 1 to get 10, what do you think would be left if I took that 9 away again?"*.

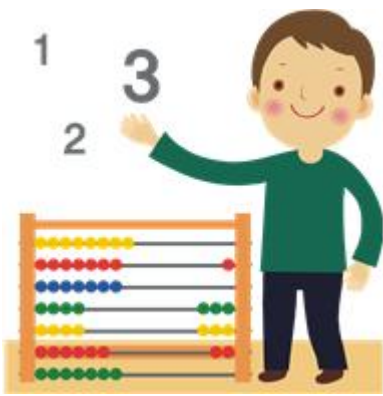
To create a neighborhood, run off the rockets on 10 different colors of construction paper. I like to teach a rainbow pattern later on in the year, so now is a great time to start with those 1st six bright colors.

Next, have students fill in the rest of the Tens Facts, one in each house, to create the entire flight booklet.

Once the neighborhood is finished, children use a square of Scotch tape to hinge them together if you want this to be free standing like the schoolhouses, or instead of using scotch tape for these, do something different for this neighborhood of rockets, and staple them into a booklet.

Another thing you can do with this packet that will help reinforce fact families, is to show students how to write the families using a T bar.

I tell children that they are becoming T-eriffic at making fact families so "It's T-Bar Time." Instead of 2 schoolhouses, they have a single rocket ship for this exercise.



Students simply trace the T in red and write the missing number on the other side of the bar. This number when added to the other will make the number on top of the T bar. You can turn this sheet into a "mad-minute" and time students.

The Fact Family Spinner Game is also another way to get the facts reinforced.

Children spin the spinner, whatever number they land on, they find that number tile and place it in the top attic window of their rocket.

They decide what other numbers they are going to choose to make a fact family for that number and fill in the remaining tiles and then X-off that fact family on one of 2 recording sheets available.

The first student, who completes all of the fact families, wins the game.

I've included traceable fact family number cards, plus addition and subtraction equation cards, all with a variety of covers so students can make Itty Bitty booklets. Use these for Memory Match Concentration games, "I Have; Who Has?" games, or have students solve the equation cards in mad minutes against a partner.

I was extremely excited to find a Droid font and wondered what on earth I could do with that cute little guy, when I decided he'd be perfect to make fact family practice sheets.



I find that students like funky fonts as well as teachers and the novelty adds just enough twist to make the "same-old" different and there fore fun! Add to their pleasure by turning them into "mad-minutes" and award stickers for their Learning Logs! Just and FYI, let them do a skill sheet or 2 first, to get used to "reading" the font, and introduce it with, *"This is a bit hard to read, but I know how smart you are, and I thought this would be fun for you..."*

The most exciting thing about the Blast Off With Me and Learn A Fact Family Packet is the Space Travel Learning Log!

Students LOVE stickers. Why someone is willing to work for a mere piece of stickiness remains a mystery, but I'm all over the fact that this is a great incentive!



Believe me, I know your students will enjoy this program so much, they will ask you, if they can work on fact families, just so they can earn stickers for their learning logs! Collecting anything is quite addicting to a kid and what an easy and fun way to learn and build self-esteem at the same time!

Can I get a Woo hoo for the win-win?

Anyway, I had a blast dreaming up this little log and hope your kiddo's will enjoy it half as much, as I did creating it.

Here's how it works:

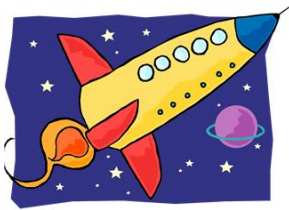
Print off copies of their school photo, cut them into ovals. Students glue this over the face of the astronaut on the cover and write their name at the top.



They journey "...on a planetary path, learning fact family math." Each time they learn a fact family they get a planet sticker. Once they've learned ALL of the fact families in the galaxy they receive the bonus Earth



sticker for that "mission accomplished" achievement



They choose a rocket, name, cut and glue it to their booklet and are able to earn rocket stickers for a variety of in-class fact family work.



They choose an alien friend, name, cut and glue it to that learning log page and are able to earn alien and spaceship stickers for still more fact family activities.



There's also a page for miscellaneous reward and award stickers. Here I suggest having a daily or weekly sticker posted, that keeps

students motivated and gets them excited to work on some aspect of fact families, because they want the coveted sticker of the day.



For the last page, they have a congratulations page, where they have accomplished their math mission and their learning log is now complete.

Finally, the last way I review fact families with students is with mini-dry erase boards that I make out of glossy ink jet paper.

Just incase you didn't see the dry erase boards I made with the schoolhouse facts, I'll also include them here.

You can buy an entire box of paper at Sam's Club, Costco or any of the office supply stores for around \$10, with anywhere from 100-200 sheets.

Cut strips the length of the paper a tad shy of 4 inches wide.

Buy a box of long colored envelopes. Seal the envelopes and snip off the ends so that they are 4 inches long.

When you write on the glossy side of the paper with a dry erase marker it easily wipes off just as if you were using a dry erase board!

I bought a pack of white washcloths and cut them into small squares.

There are several fun ways you can use these envelope dry erase boards:

Teacher writes down two equations on theirs and shows it to the students.

Students copy the equations and then put the "secret solution" at the end of the board and cover it with the envelope, holding their board in the air when they are done.

When the teacher says, "Reveal!" she can see at a glance who has the correct answer.

Teachers can write down a “secret solution” and students can figure out 2 equations that match. (Teacher would list all of the equations that would be correct on their answer key.) Students would hold up their 2 solutions with answers.

Because these are so inexpensive to make, you could make them for your students every year, so they could keep them. Have them store them in their desk, cubby, or folder for easy access. Use them for math, name writing, letters, shape identification etc.

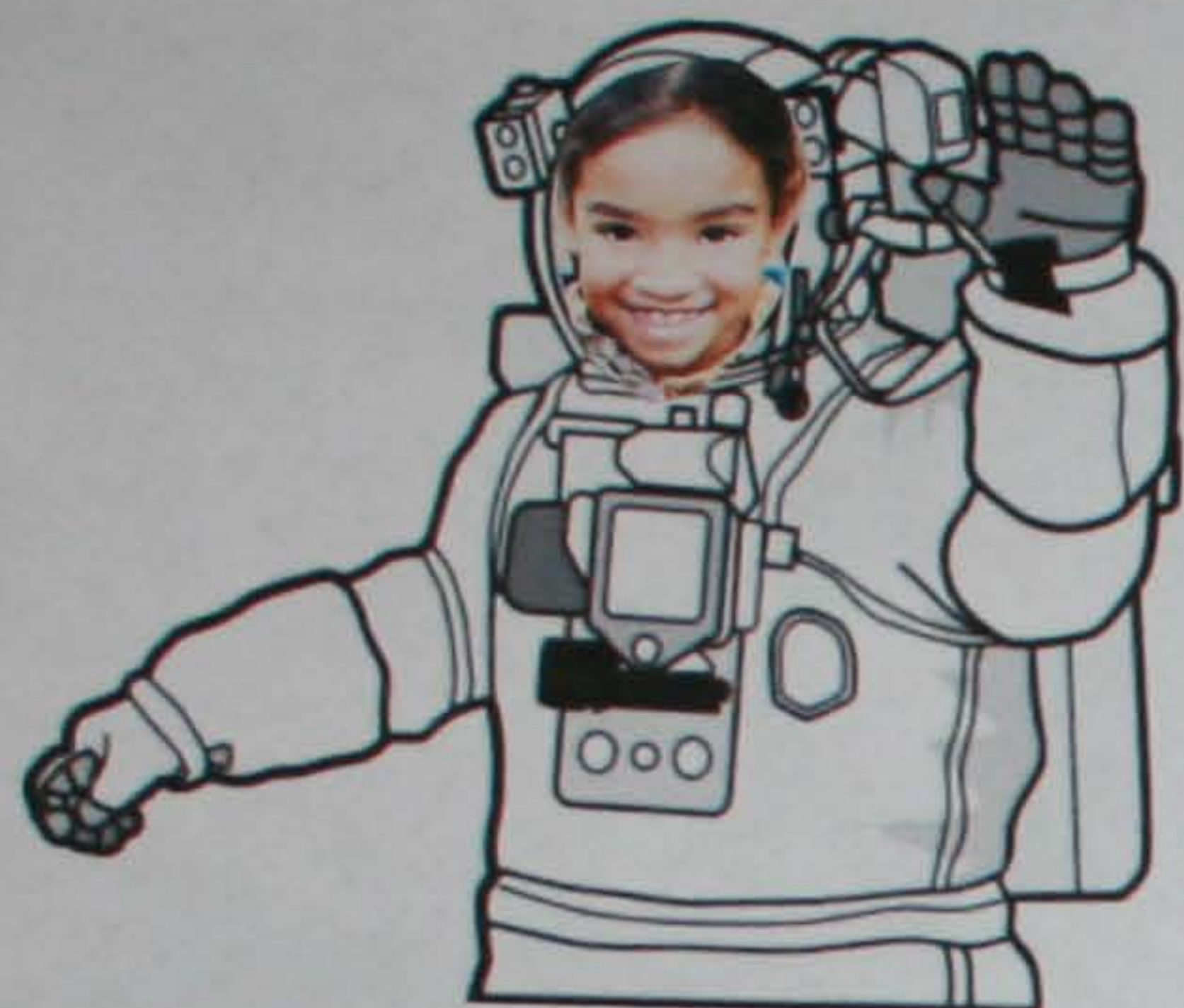
If you like to have home-school connections for your students, a great way to practice their math facts is by logging them into **Xtra Math**. This would be a great way for students to earn those extra stickers for their learning logs.

It's a free online program: <https://www.xtramath.org/> run by a non-profit organization, that is dedicated to math achievement for all. This is less than 10 minutes a day of math that your students can work on at home to increase their recognition of math facts. The program is free, simple and includes progress reports. I found it while surfing the net. It's recommended by Edmodo, and worth checking out to see if it fits your needs.

I hope these ideas have added to your math bag of tricks, to help make teaching in your neighborhood, a bit more wonderful!

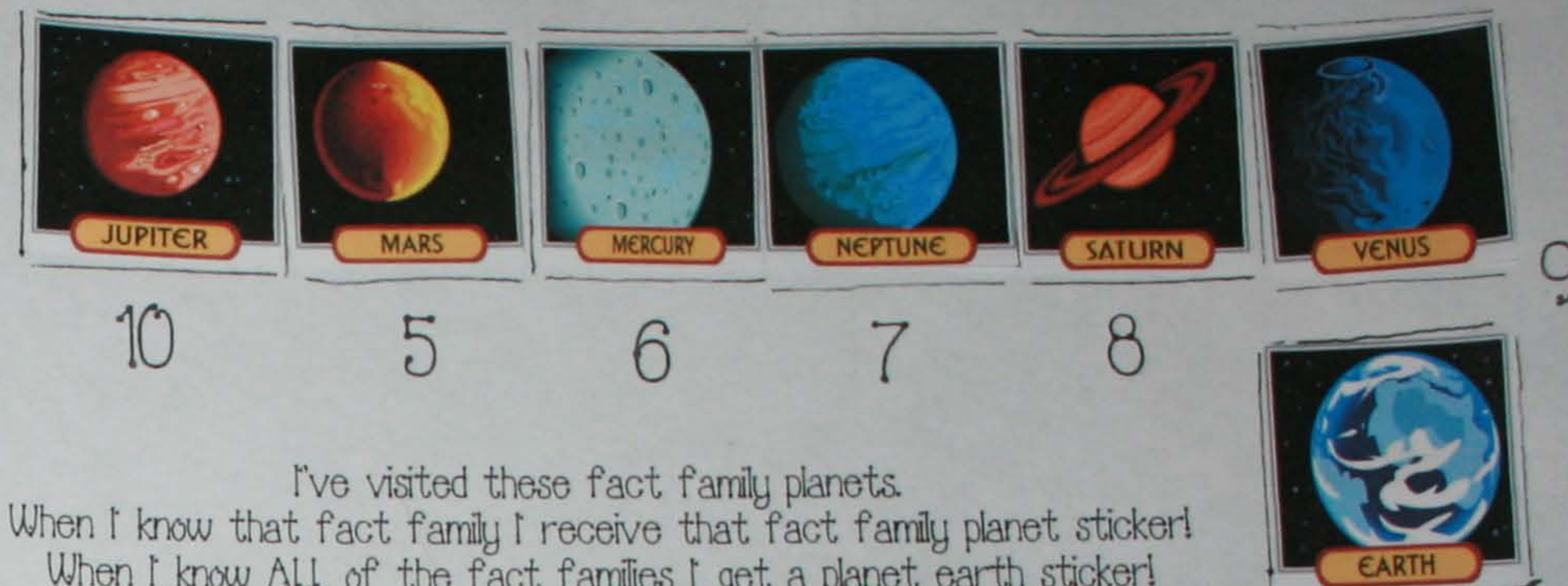
*“Too often we give children answers to remember,
rather than problems to solve.” –Roger Lewin*





Kelli's Space Travel Learning Log

I'm traveling a solar path,
that leads to knowing fact family math!



I've visited these fact family planets.
When I know that fact family I receive that fact family planet sticker!
When I know ALL of the fact families I get a planet earth sticker!



This is my rocket.
My rocket's name is: Flash 7

These are the rocket stickers I've earned. Ask me how!



This is my favorite alien friend.

His name is Max

These are the alien and spaceship stickers I've earned. Ask me how!



Award and reward stickers I've earned. Ask me what they're for.



High-Five Congratulations!

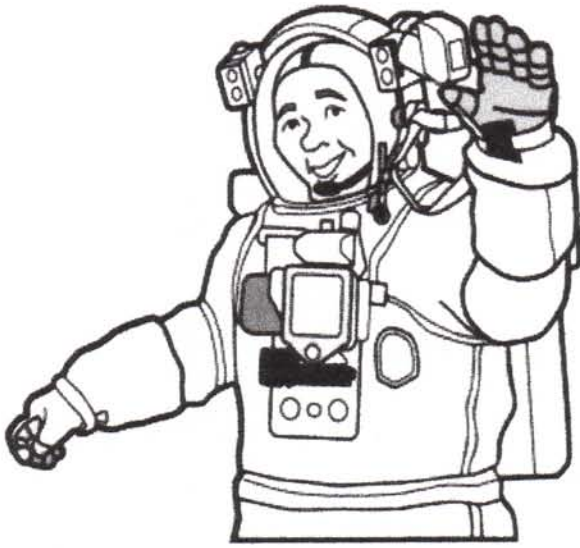
Kelli

has successfully completed
our Fact Family Space Tour.

Teacher: Mrs. Henderson

Date: January 26





Space Travel Learning Log

I'm traveling a solar path,
that leads to knowing fact family math!



Space Travel Learning Log

I'm traveling a solar path,
that leads to knowing fact family math!



Space Travel Learning Log

I'm traveling a solar path,
that leads to knowing fact family math!

JUPITER	MARS	MERCURY	NEPTUNE	SATURN	VENUS	9
10	5	6	7	8		

I've visited these fact family planets.
 When I know that fact family I receive that fact family planet sticker!
 When I know ALL of the fact families I get a planet earth sticker!



JUPITER	MARS	MERCURY	NEPTUNE	SATURN	VENUS	9
10	5	6	7	8		

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JUPITER	MARS	MERCURY	NEPTUNE	SATURN	VENUS	9
10	5	6	7	8		

I've visited these fact family planets.
 When I know that fact family I receive that fact family planet sticker!
 When I know ALL of the fact families I get a planet earth sticker!





Planet Stickers

Each time a student learns a fact family,
they earn a planet sticker.
When they have learned them all,
they earn the earth sticker.



This is my rocket:

My rocket's name is: _____

These are the rocket stickers I've earned. Ask me how.

This is my favorite alien friend.

His name is _____

These are the alien and spaceship stickers I've earned. Ask me how.

Award and reward stickers I've earned. Ask me what they're for.



High-Five Congratulations!

has successfully completed
our Fact Family Space Tour.

Teacher: _____

Date: _____



High-Five Congratulations!

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Teacher: _____

Date: _____



High-Five Congratulations!



has successfully completed
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Teacher: _____

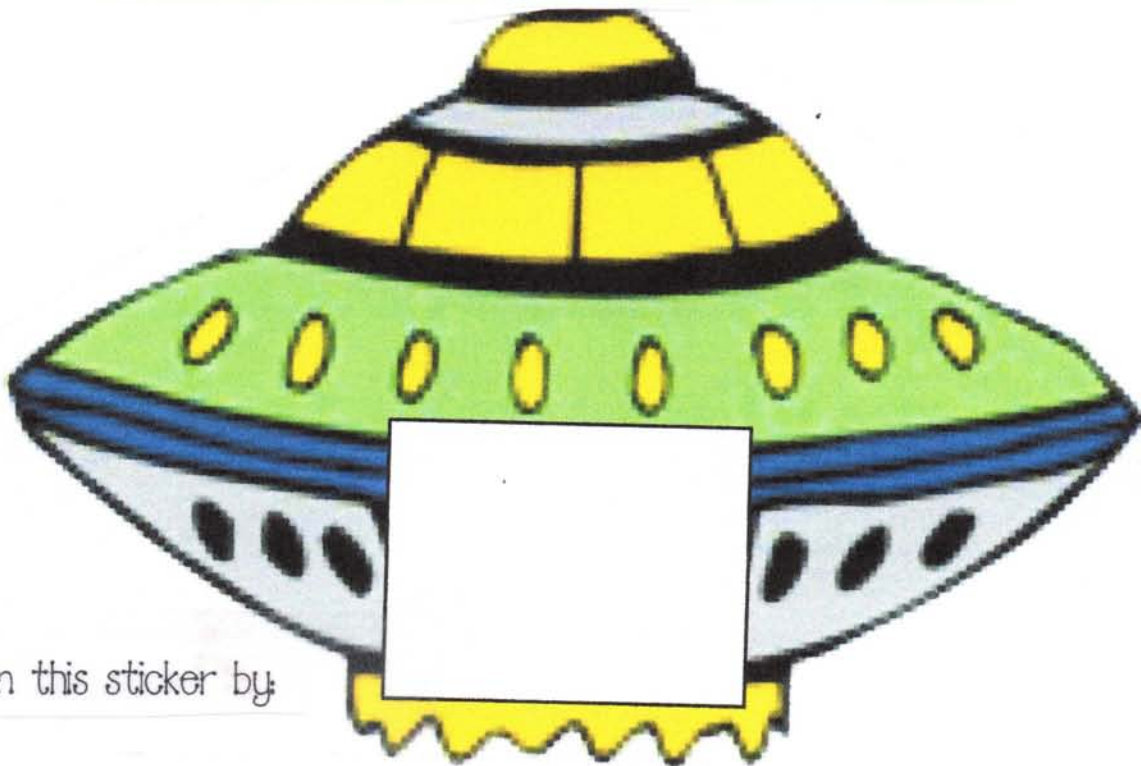
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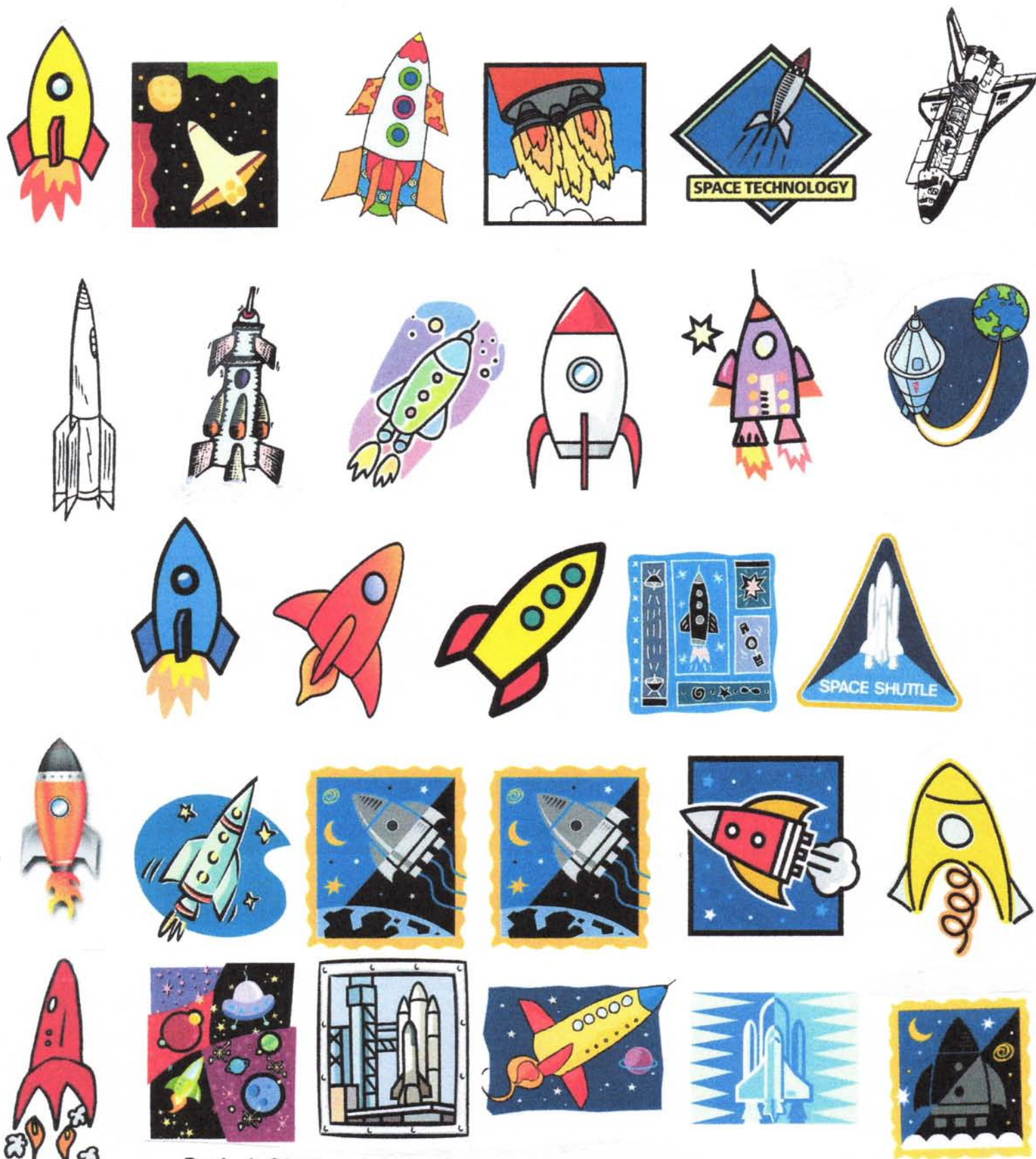


Can You Find The  The  of
This World Sinker Today?

Featured Sticker:



You can earn this sticker by:



Rocket Stickers:

Each time a student participates in "mad minutes" and gets a 100% or beats their previous time by completing more fact families or completely finishing a sheet, they get a speedy rocket sticker. You can give them out for whatever else you deem appropriate for this category. Students also get to choose a rocket for their Space Travel Log. This is a mini-writing extension.

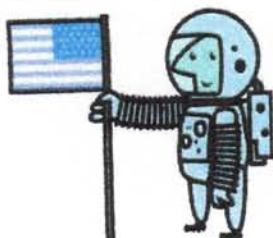
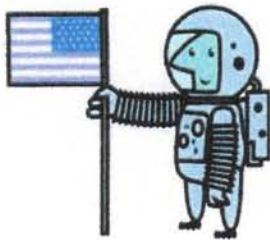
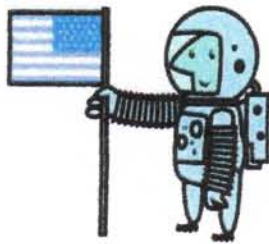


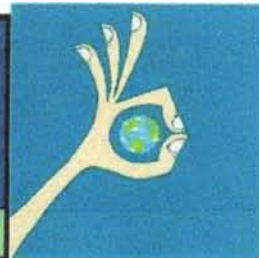
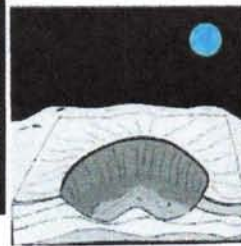
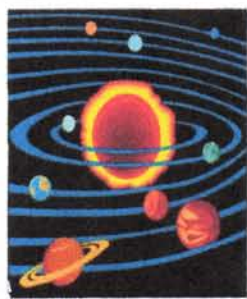
Alien Stickers:

Each time a student participates in a fact family game and plays with an "alien" (classmate) and wins the game, or completes the activity, they get an alien or alien spaceship sticker. Students also get to pick out an alien friend and name it to glue in their Space Travel Log.

Miscellaneous Stickers:

Teachers can dream up reasons for giving out these stickers. For example: This student knew all of the fact families first, wins the most games, gets down to business quickest, nice player award, spotted being a great astronaut, helped an alien learn a fact family, practiced fact families online, turned in their fact family homework, stayed on task during fact family time and was the first to complete their work etc. Make sure you inform your students about the special sticker of the day/week so they can try to achieve it. They WILL want to collect these, so it's a great motivational tool for you.



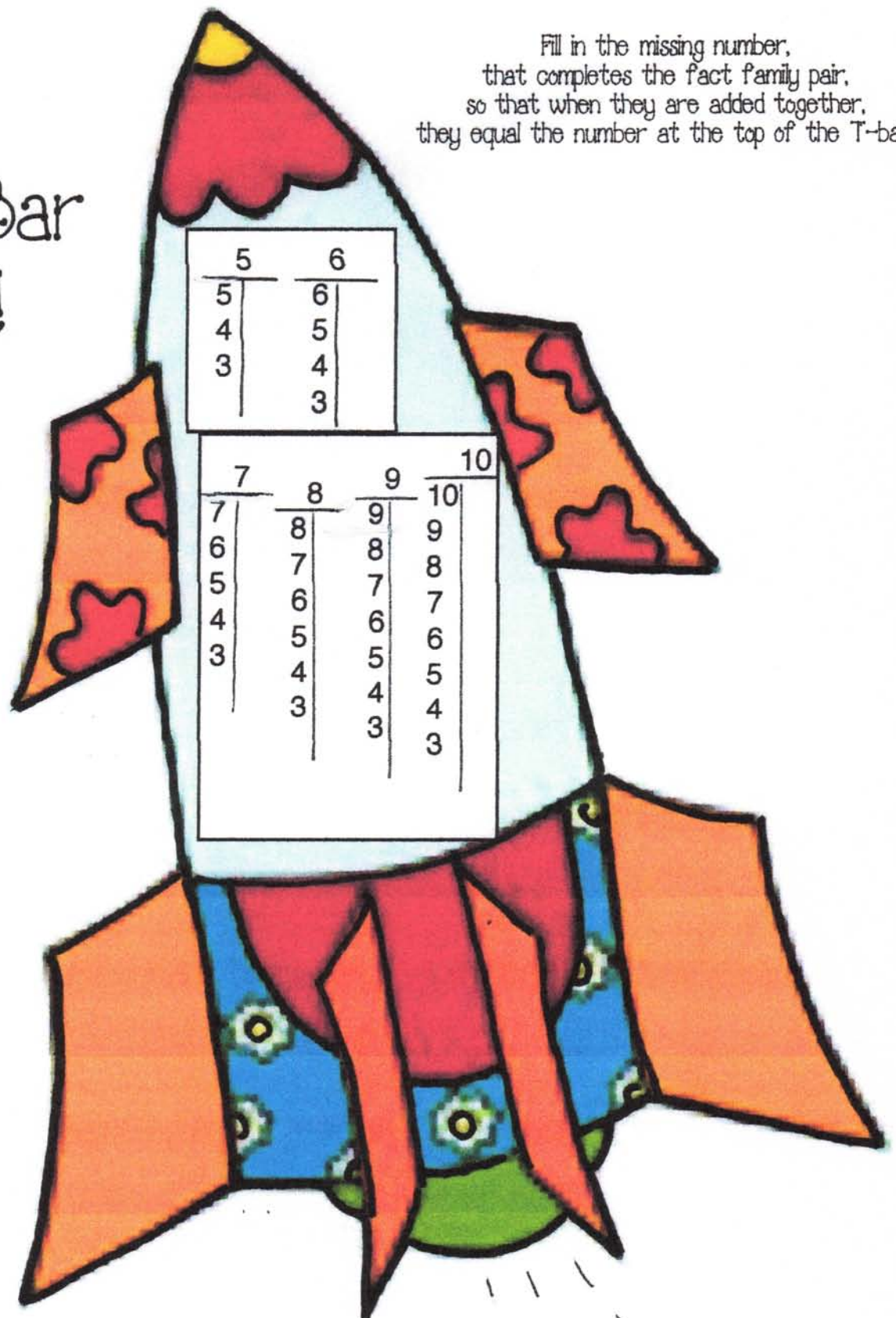


Miscellaneous Stickers

T is for T-eriffic

Fill in the missing number,
that completes the fact family pair,
so that when they are added together,
they equal the number at the top of the T-bar

It's T-Bar
Time!



You ARE TERRIFIC!

Directions:

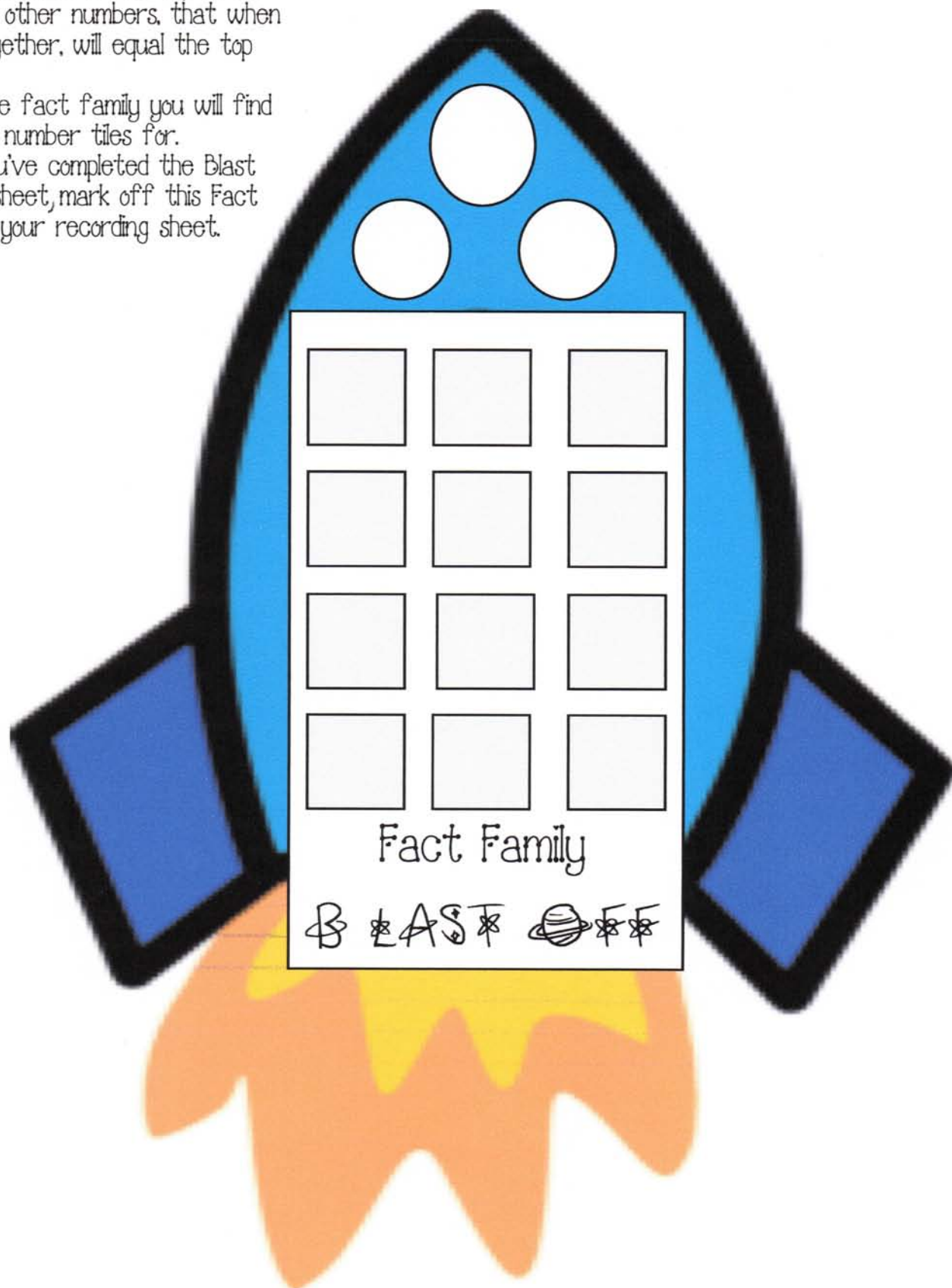
Spin the spinner.

Put that number in the top circle.

Choose 2 other numbers, that when added together, will equal the top circle.

This is the fact family you will find and fill in number tiles for.

After you've completed the Blast Off tile sheet, mark off this Fact Family on your recording sheet.

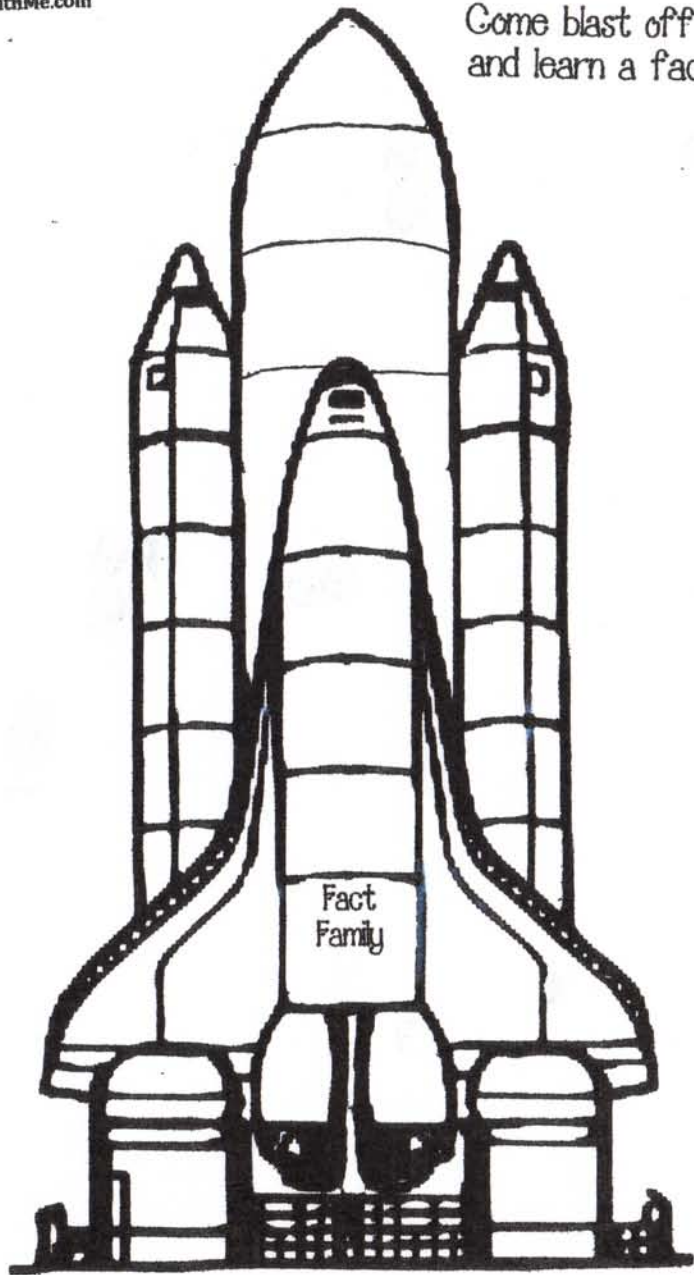


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3	3	3	3	4	4	4	4	4	5	5
5	5	5	6	6	6	6	6	7	7	7
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9	10	10	10	10	10					

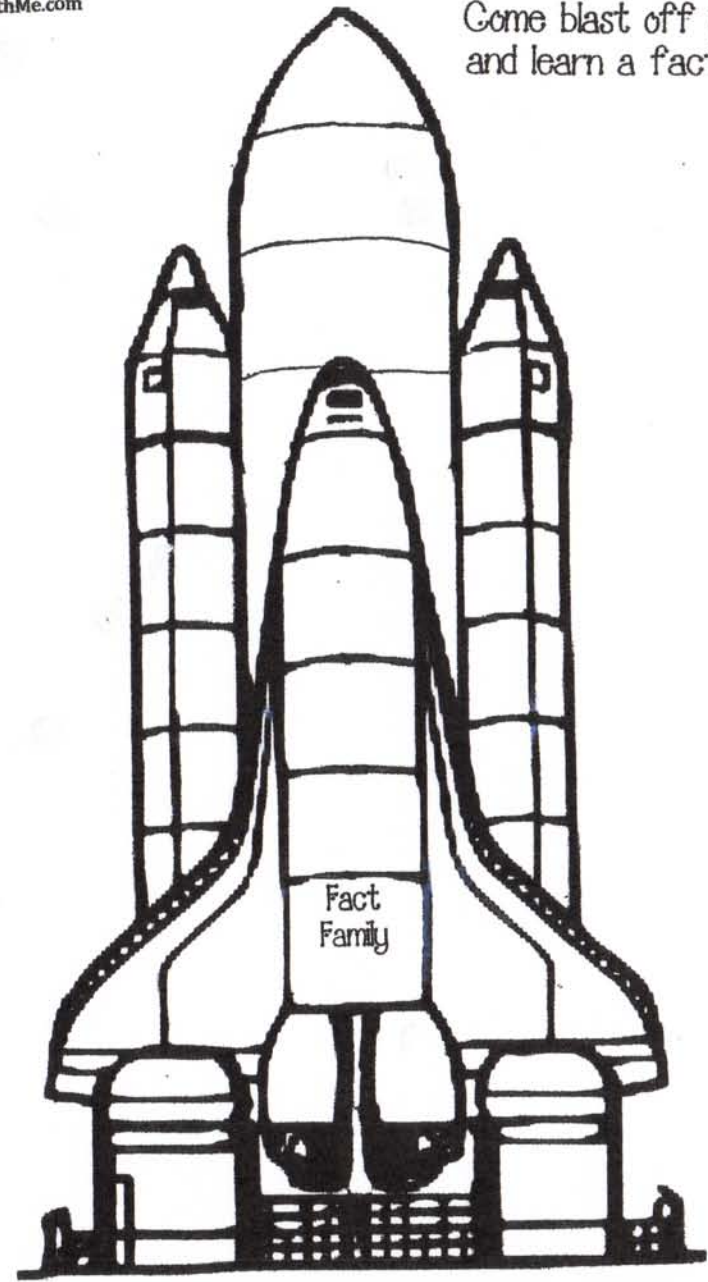
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3	3	3	3	4	4	4	4	4	5	5
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9	10	10	10	10	10					

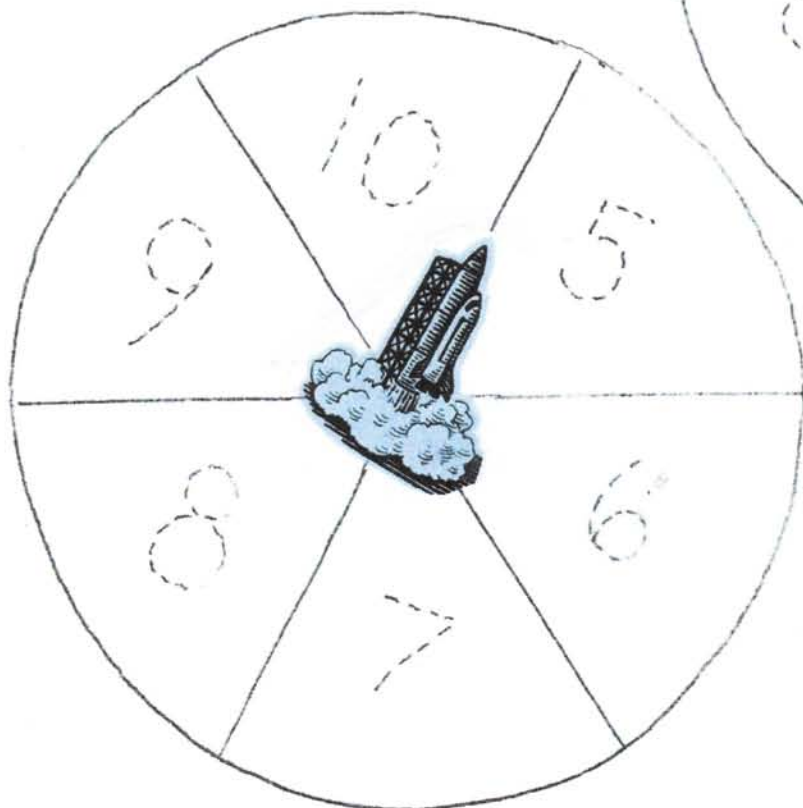
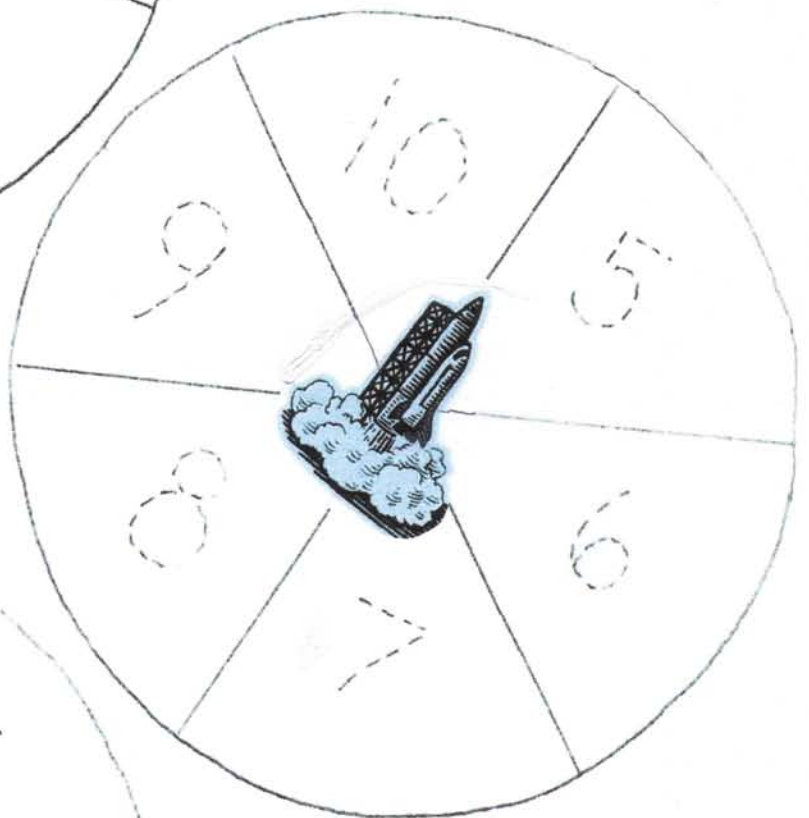
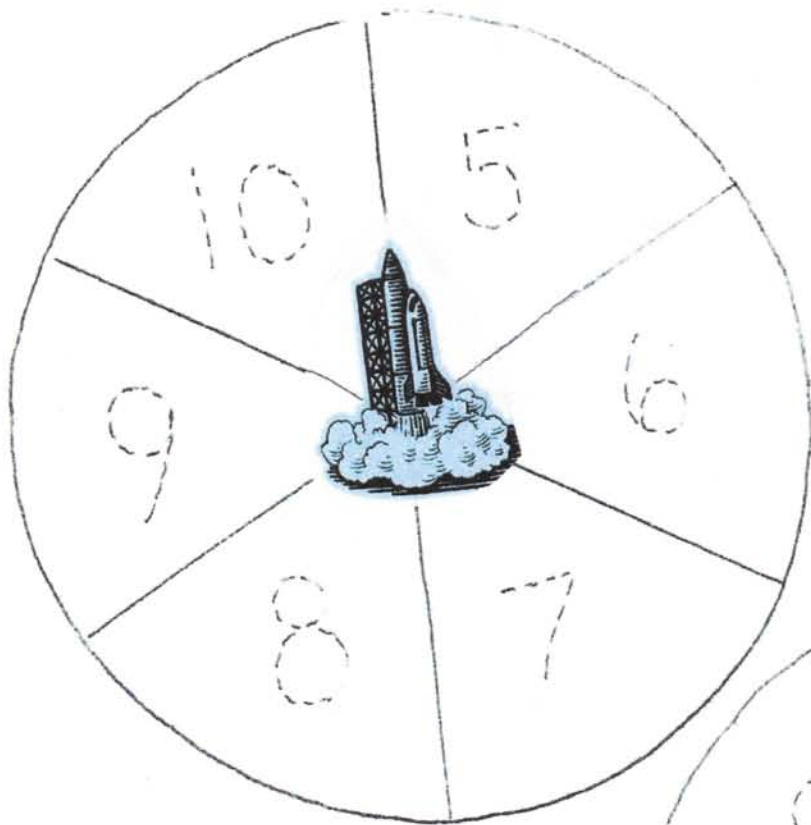
Tiles for Blast Off Game

Come blast off with me
and learn a fact family!

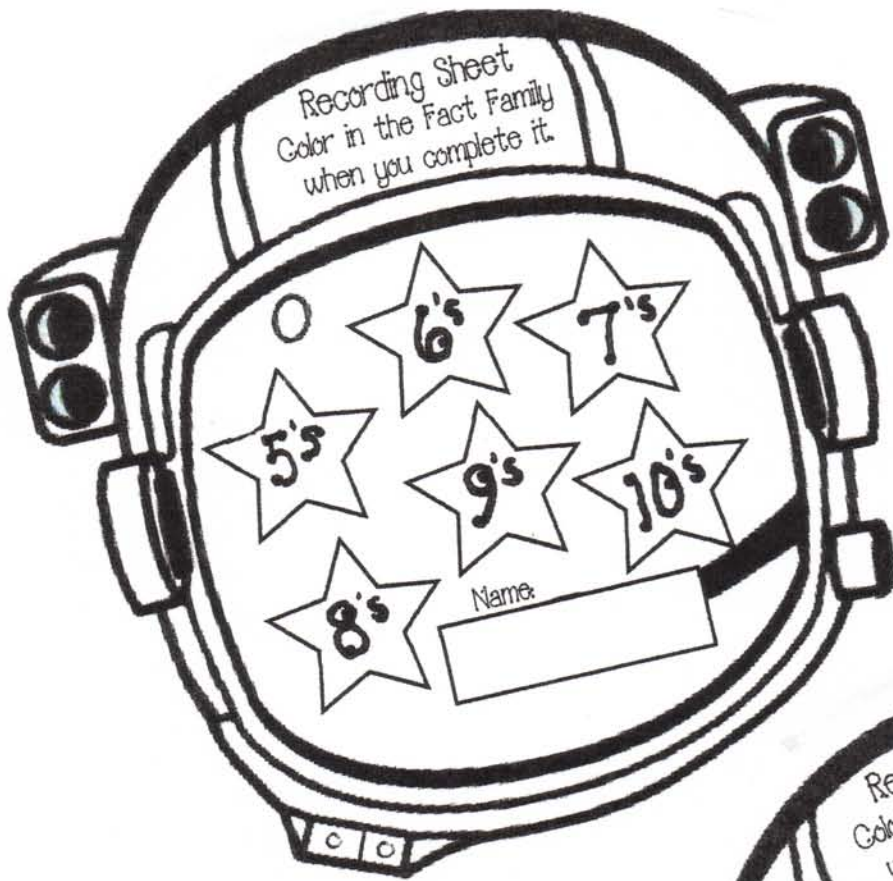


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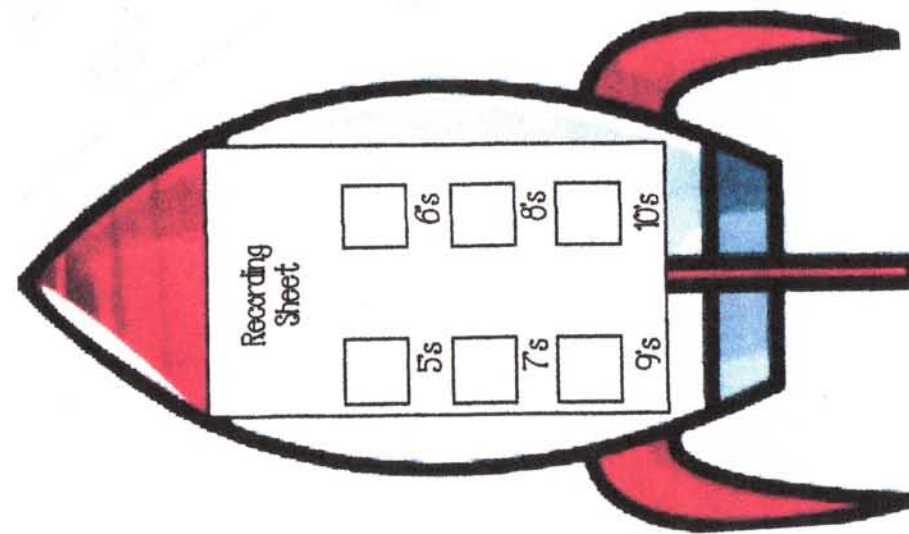
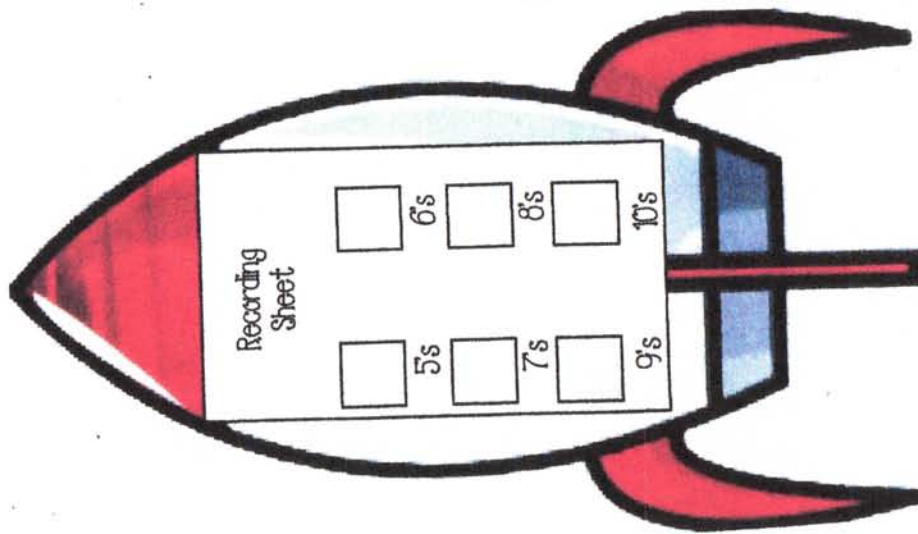
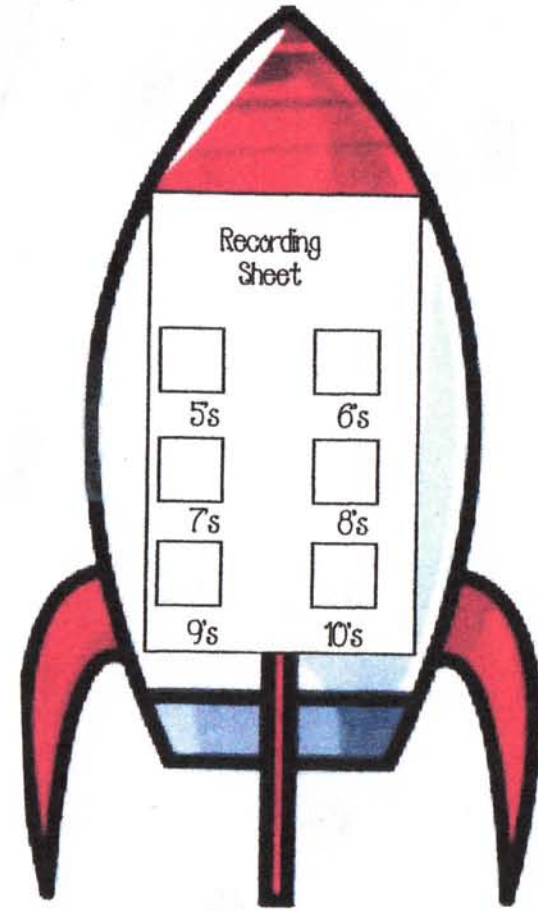
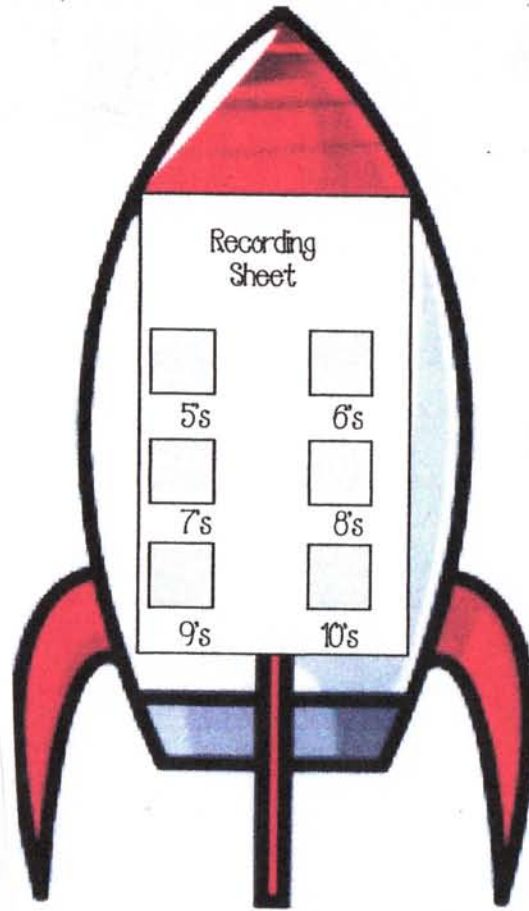
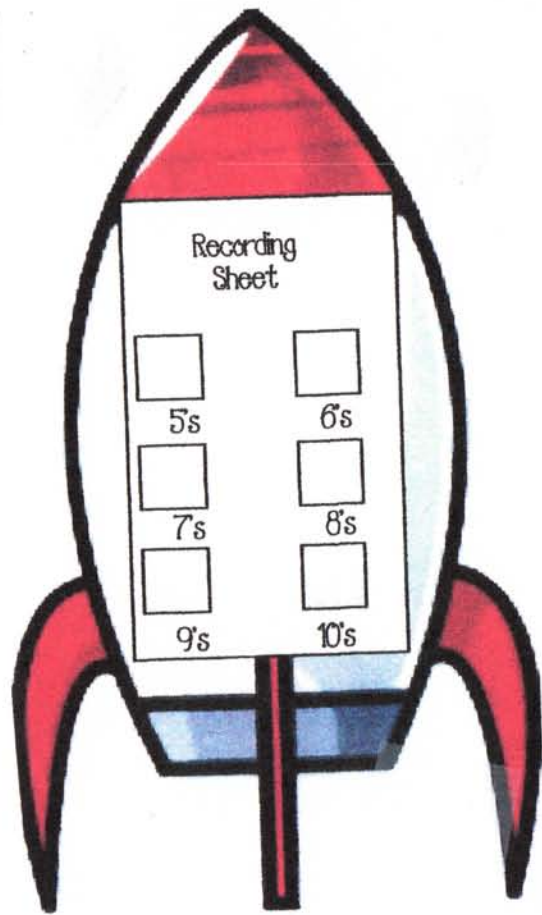




Fact Family
Spinners







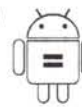































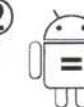









Recording
Sheets for
Blast Off
Game












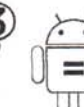










Fact Family Practice

Write the answers.

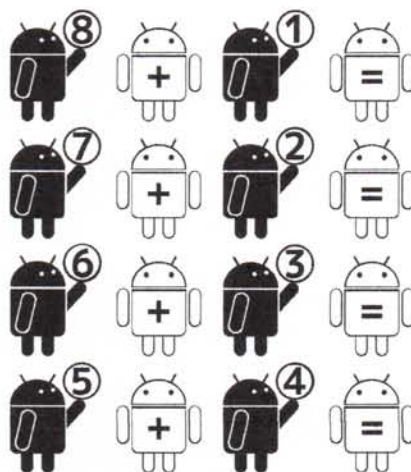
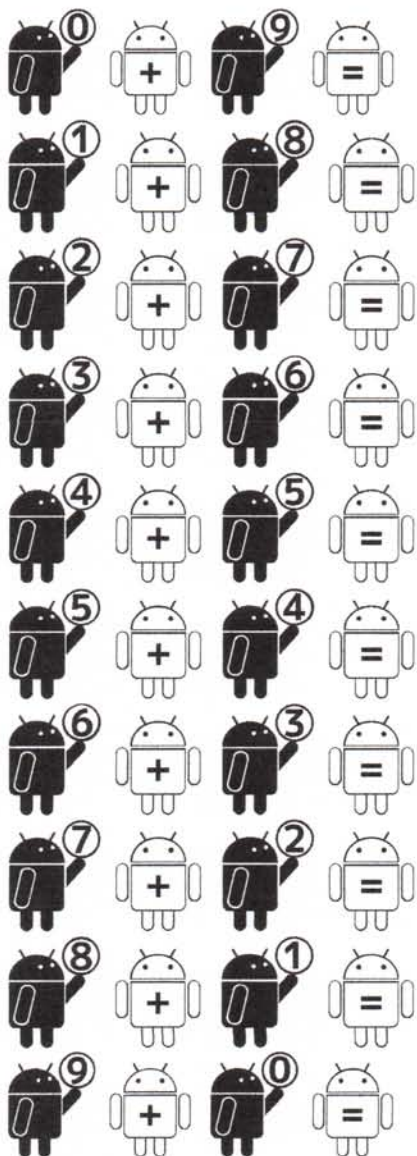


Fact Family Practice

Write the answers.



Fact Family Practice






















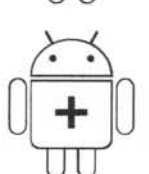












Write the answers.

Fact Family Practice

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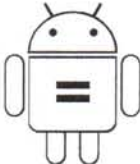



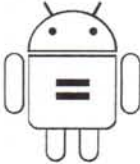

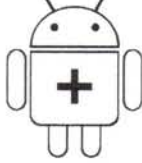

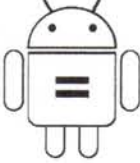

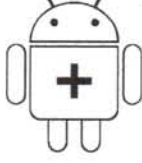

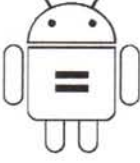



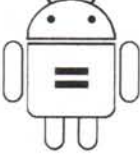





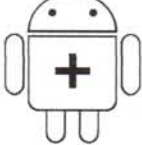

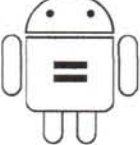


Fact Family Practice

Write the answers.




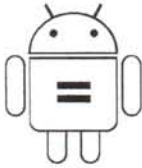



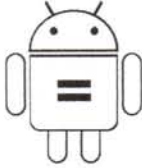

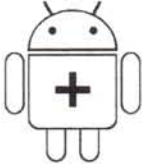

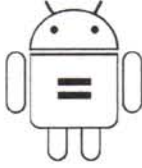





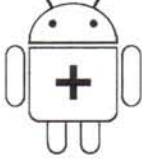



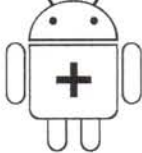

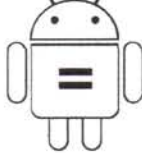


Fact Family Practice

Write the answers.



Fact Family Practice


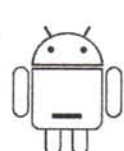

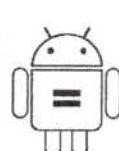

















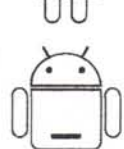



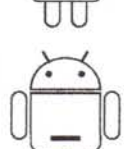



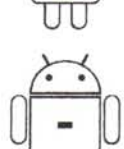



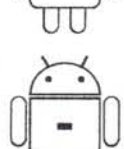






Write the answers.



Fact Family Practice

Write the answers.






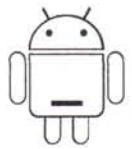







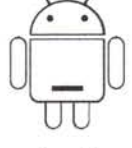



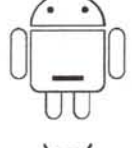

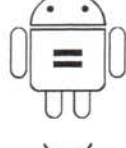



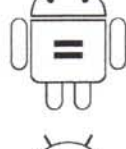

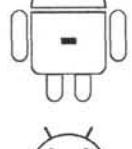

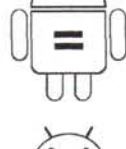

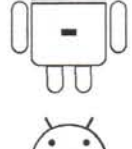

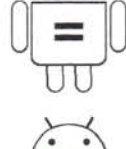






Fact Family Practice

Write the answers.



Fact Family Practice
















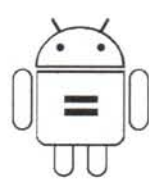



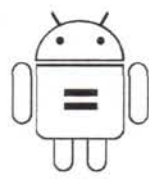

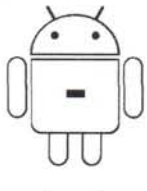



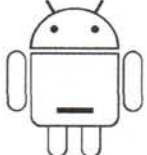

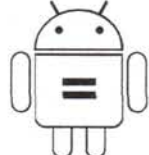
Write the answers.



Fact Family Practice

Write the answers.


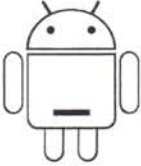

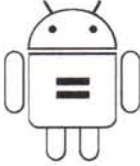

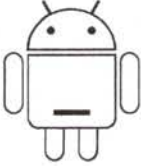

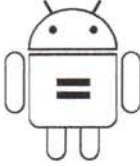

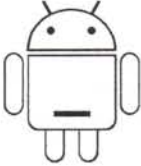

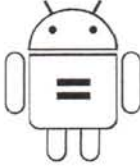

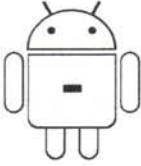

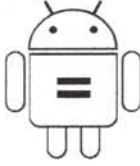

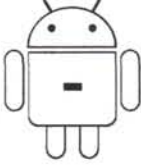

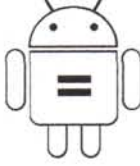

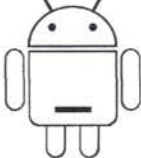

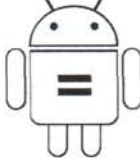


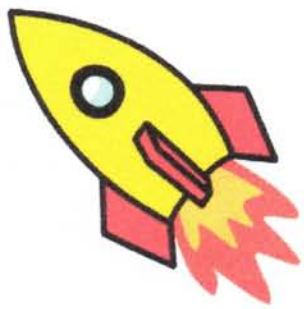
			
			
			
			
			
			
			

Fact Family Practice

Write the answers.



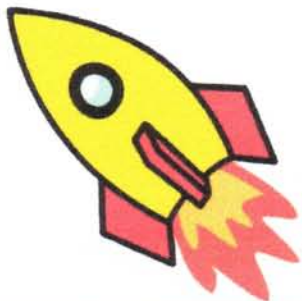
			
			
			
			
			
			



My Itty
Bitty Fact
Family



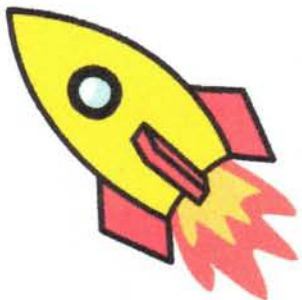
5



6



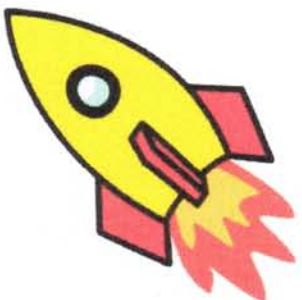
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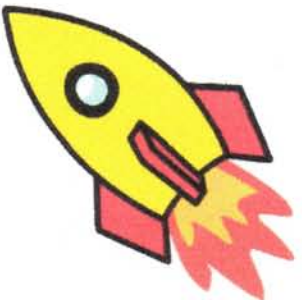
8

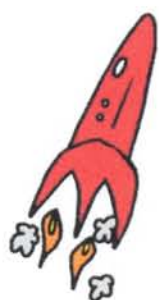


9



10





$$10 - 9$$



$$10 - 0$$



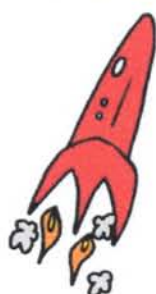
$$10 - 1$$



$$10 - 2$$



$$10 - 3$$



$$10 - 4$$



$$10 - 5$$



$$10 - 6$$



$$10 - 7$$



$$10 - 8$$



Subtraction



10 - 10

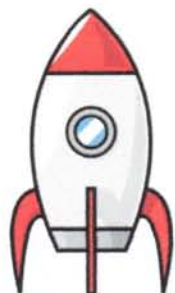




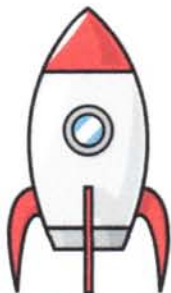
$$9 - 9$$



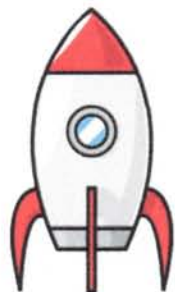
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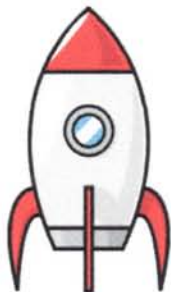
$$9 - 1$$



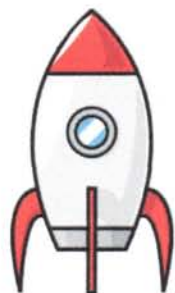
$$9 - 2$$



$$9 - 3$$



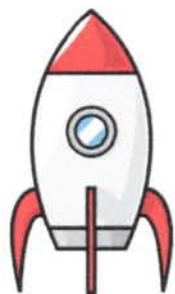
$$9 - 4$$



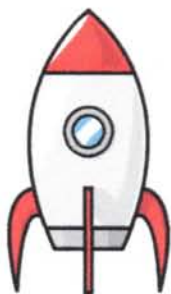
$$9 - 5$$



$$9 - 6$$



$$9 - 7$$



$$9 - 8$$



Subtraction



$$8 - 0$$



$$8 - 1$$



$$8 - 2$$



$$8 - 3$$



$$8 - 4$$



$$8 - 5$$



$$8 - 6$$



$$8 - 7$$



$$8 - 8$$



My Itty
Bitty Fact
Family



$$7 - 0$$



$$7 - 1$$



$$7 - 2$$



$$7 - 3$$



$$7 - 4$$



$$7 - 5$$



$$7 - 6$$



$$7 - 7$$



Subtraction



My Itty
Bitty Fact
Family



$$6 - 0$$



$$6 - 1$$



$$6 - 2$$



$$6 - 3$$



$$6 - 4$$



$$6 - 5$$



$$6 - 6$$



Subtraction



My Itty
Bitty Fact
Family Booklet



$$5 - 0$$



$$5 - 1$$



$$5 - 2$$



$$5 - 3$$



$$5 - 4$$



$$5 - 5$$



Subtraction



Addition



$$10 + 0$$



$$9 + 1$$



$$8 + 2$$



$$7 + 3$$



$$6 + 4$$



$$5 + 5$$



$$4 + 6$$



$$3 + 7$$



$$2 + 8$$



#10 Ten
Fact



$$1 + 9$$



$$0 + 10$$





Addition



$$9 + 0$$



$$8 + 1$$



$$7 + 0$$



$$6 + 3$$



$$5 + 4$$



$$4 + 5$$



$$3 + 6$$



$$2 + 7$$



$$1 + 8$$



#9 Nine
Fact



$$0 + 9$$





Addition



$$8 + 0$$



$$7 + 1$$



$$6 + 2$$



$$5 + 3$$



$$4 + 4$$



$$3 + 5$$



$$2 + 6$$



$$1 + 7$$

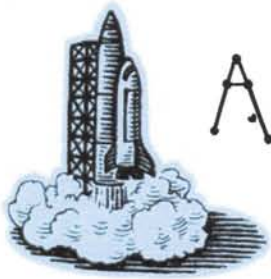


$$0 + 8$$



#8 Eight Fact Family





Addition



$$7 + 0$$



$$6 + 1$$



$$5 + 2$$



$$4 + 3$$



$$3 + 4$$



$$2 + 5$$



$$1 + 6$$



$$0 + 7$$



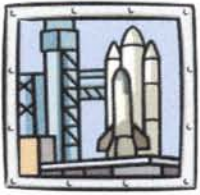
#7 Seven
Fact Family



Addition



$$6 + 0$$



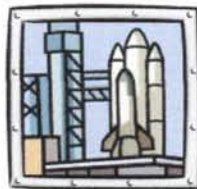
$$5 + 1$$



$$4 + 2$$



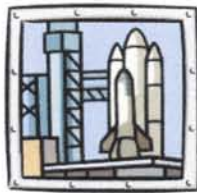
$$3 +$$



$$2 + 4$$



$$1 + 5$$



$$0 + 6$$



#6 Six
Fact Family





Addition



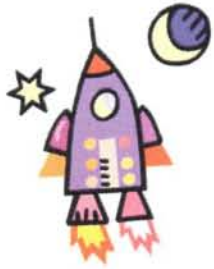
$$5 + 0$$



$$4 + 1$$



$$3 + 2$$



$$2 + 3$$



$$1 + 4$$

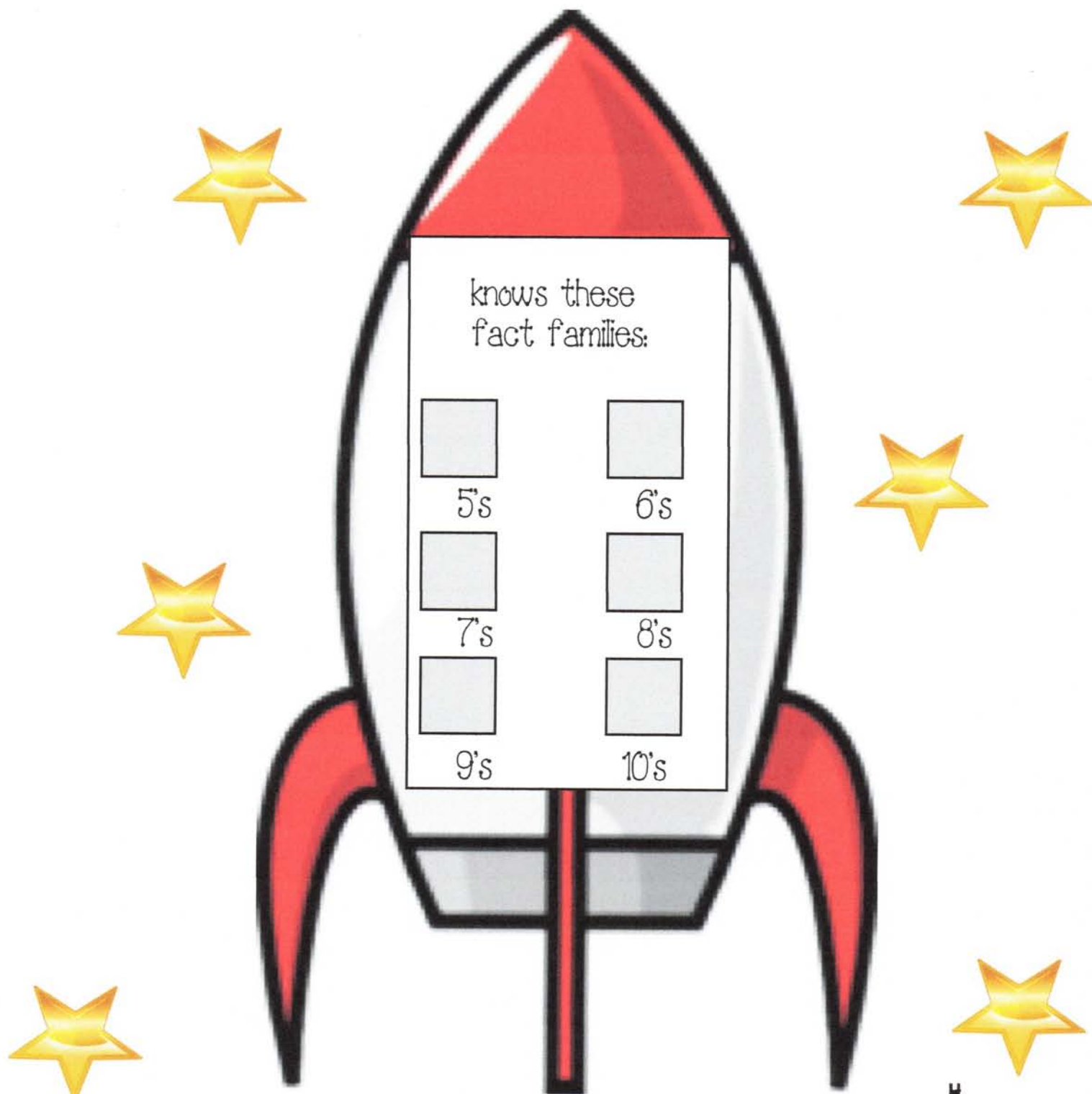


$$0 + 5$$



#5 Five
Fact





conGRatulations!