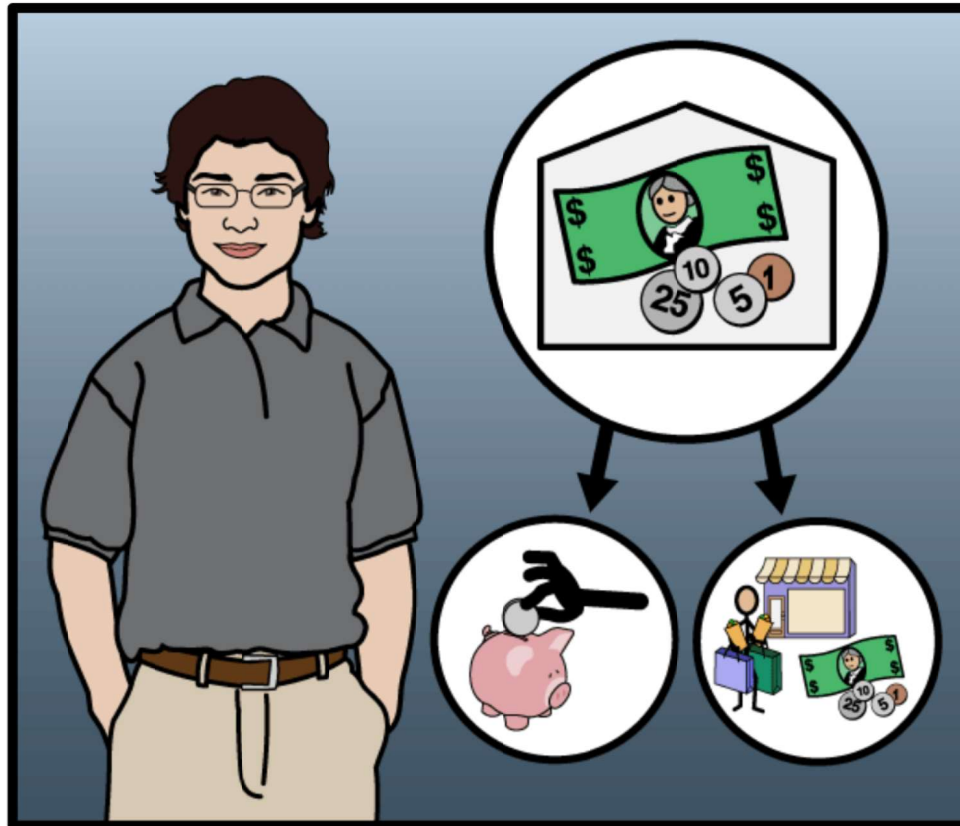


# A Bank Is Helpful

Level C



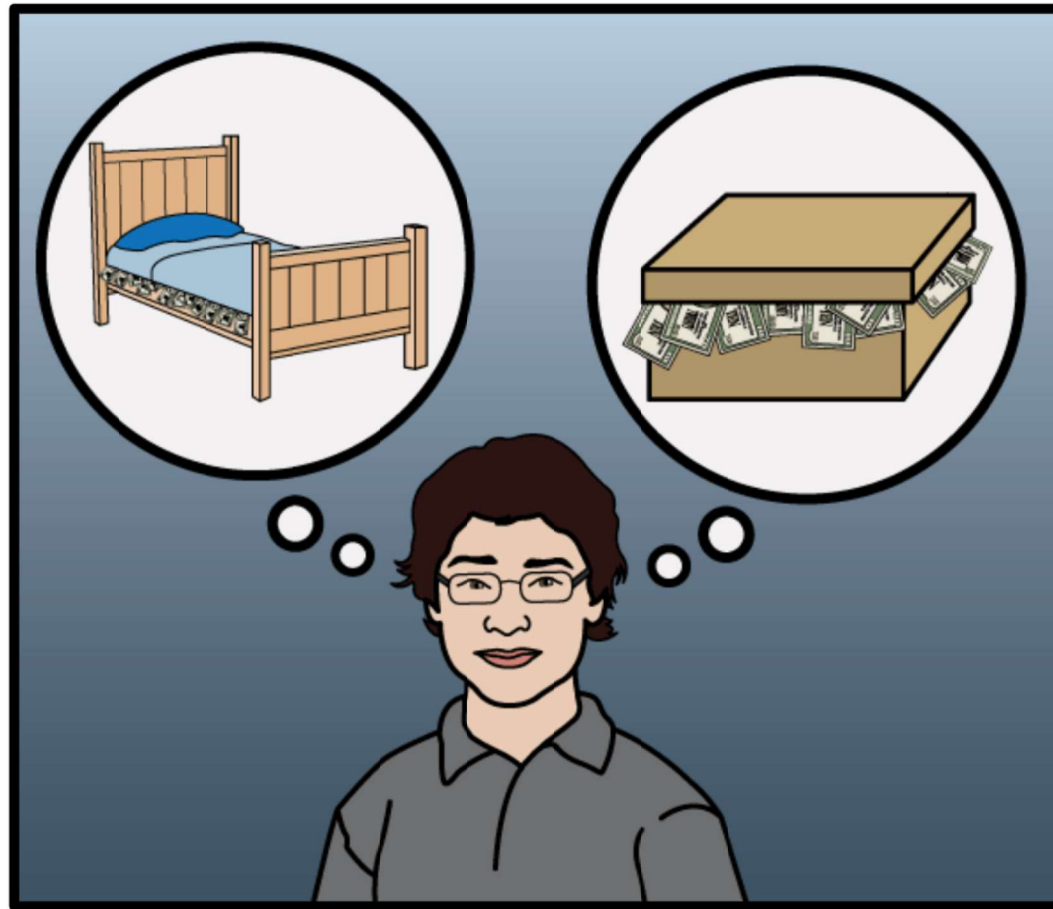
by Katherine Rottman

Illustrated by Alex Wisehart



**Kirk has money.**

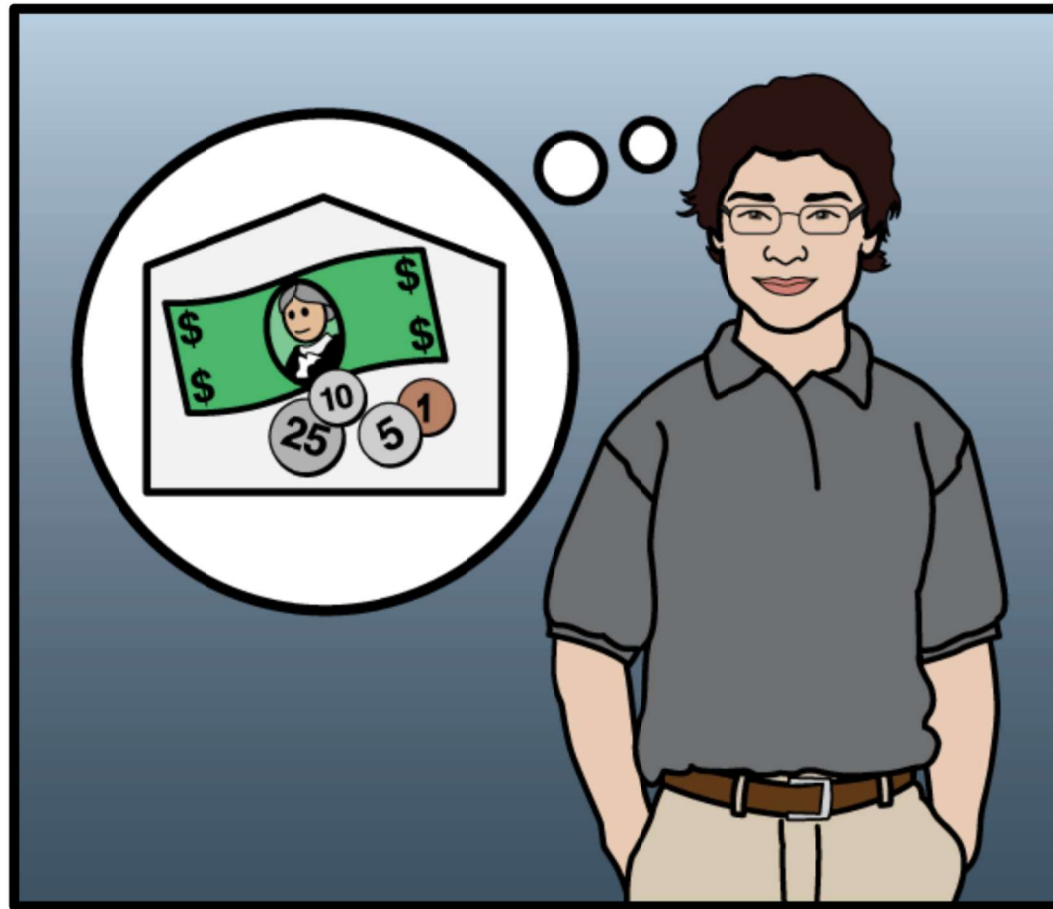
**He needs a safe place to keep it.**



**Where can Kirk keep his money ?**

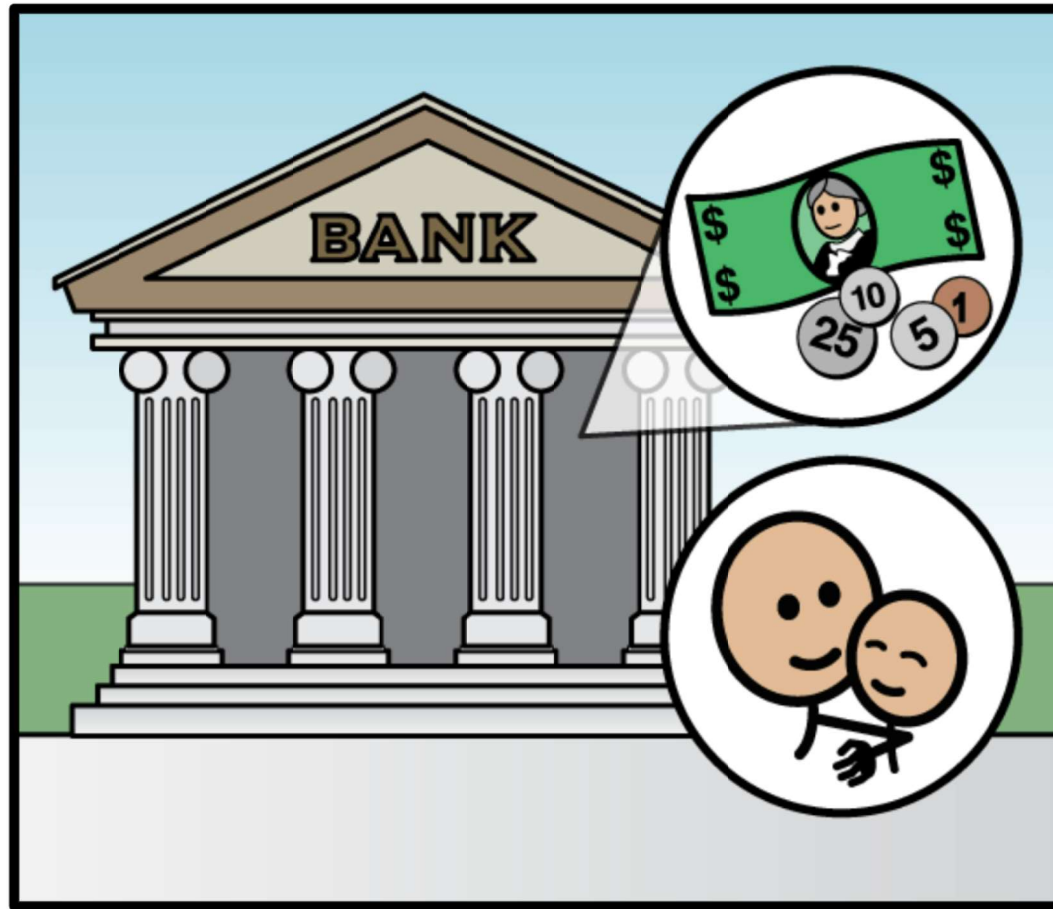
**Under the bed ?**

**In a box ?**

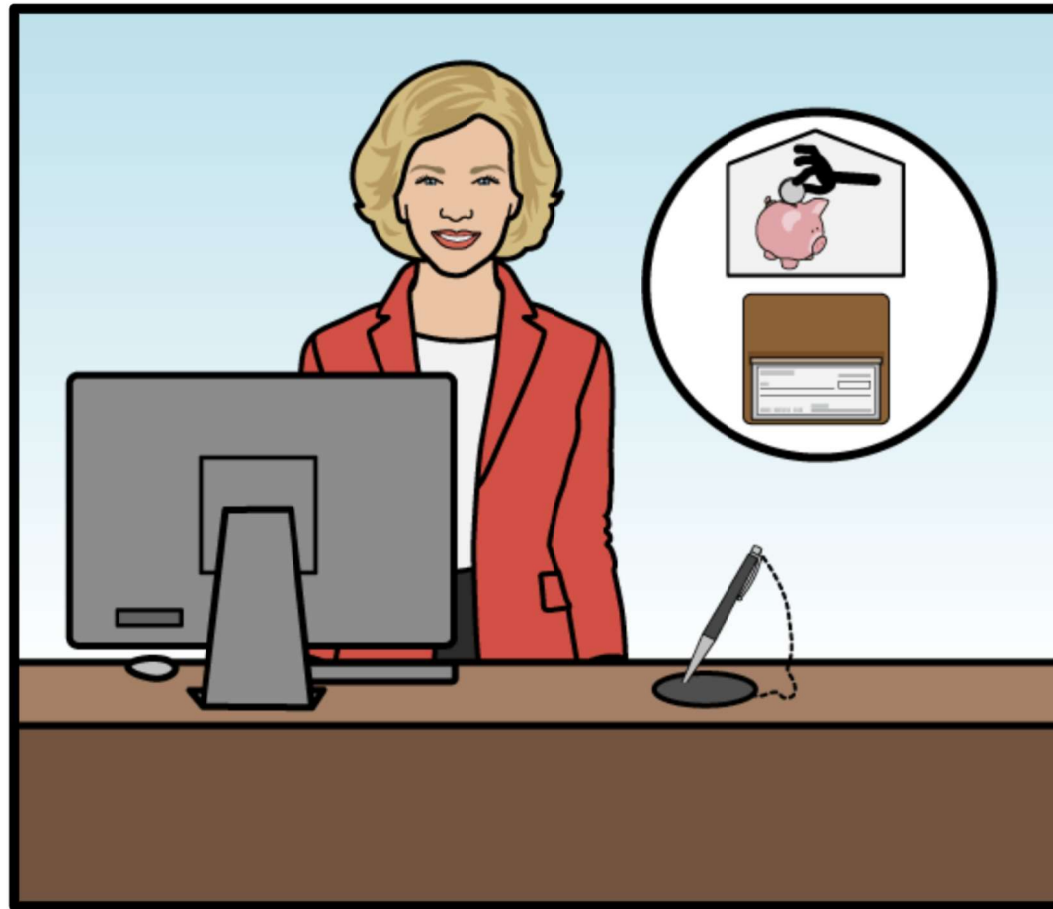


**Kirk can put his money in a bank.**  
**People keep their money in a bank.**





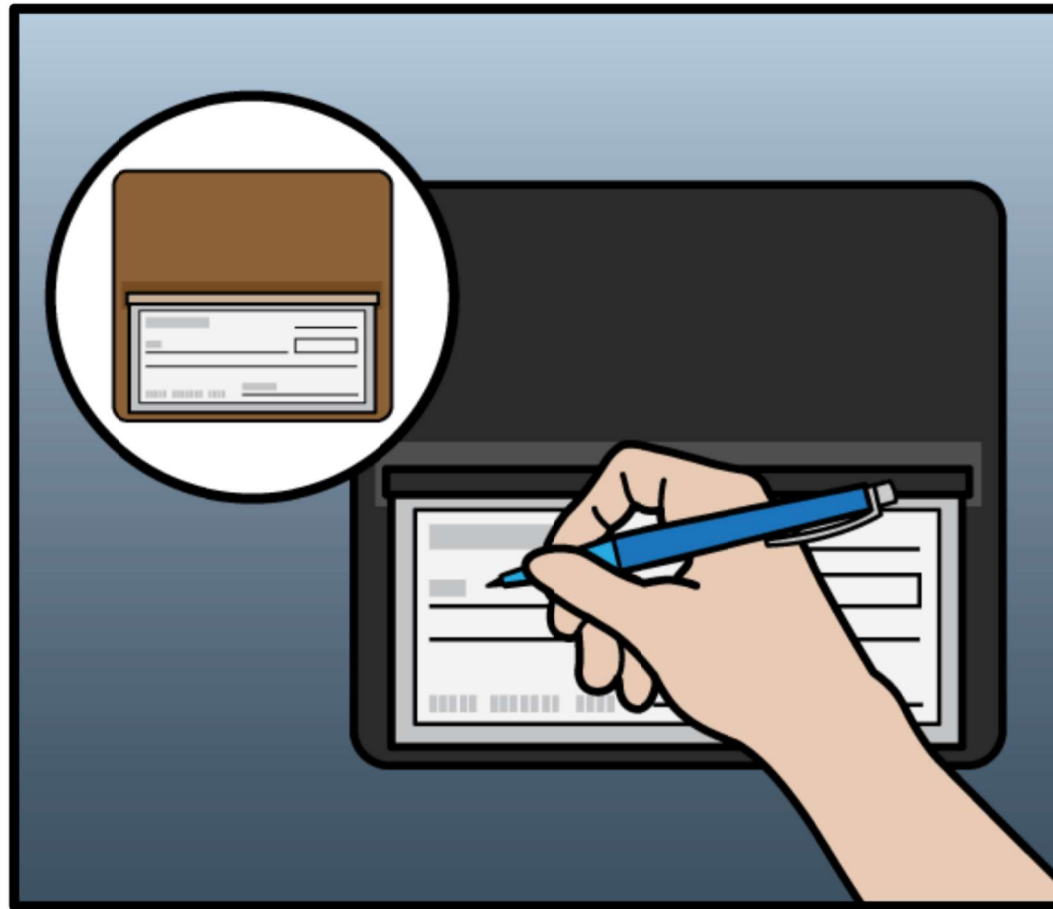
**A bank is safe.**  
**A bank is helpful.**



**Kirk and his mother go to the bank.  
Kirk opens up bank accounts.**



**Kirk puts money into a checking account.  
The bank will keep his money safe.**



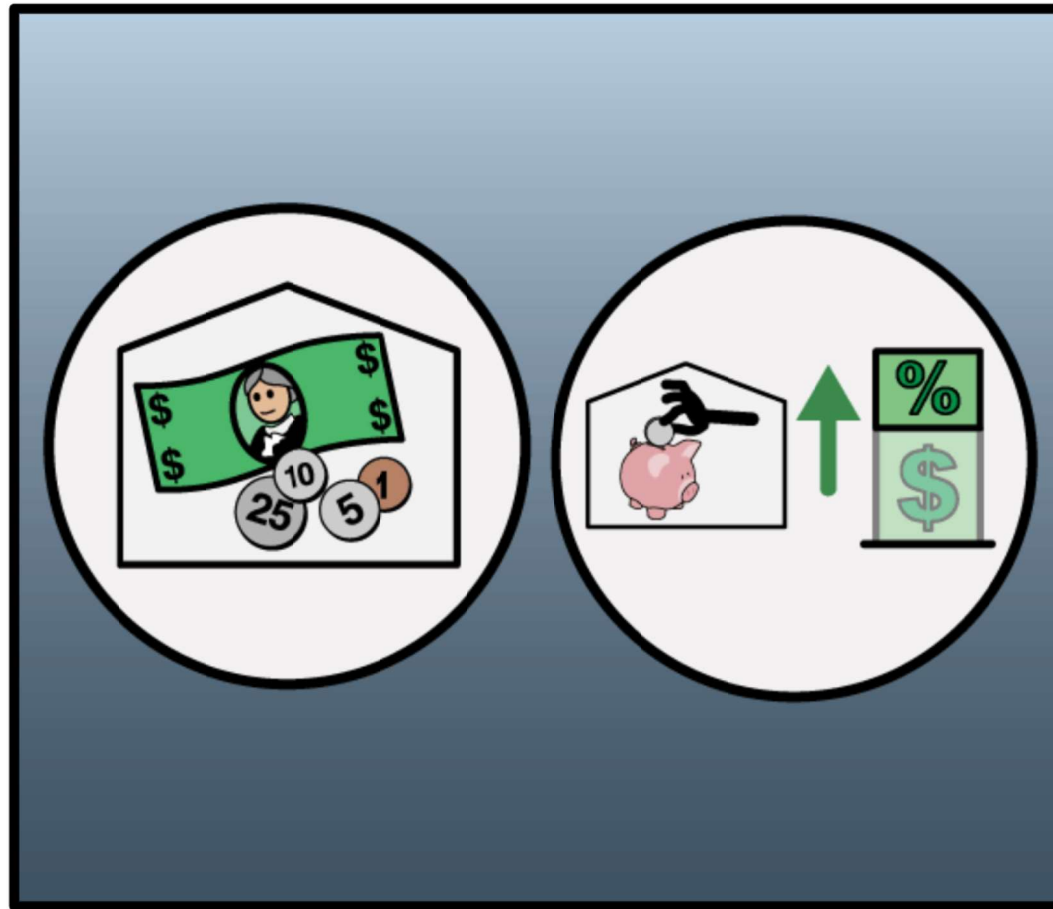
**Kirk can use his money to buy things.  
He can use a check to pay for them.**



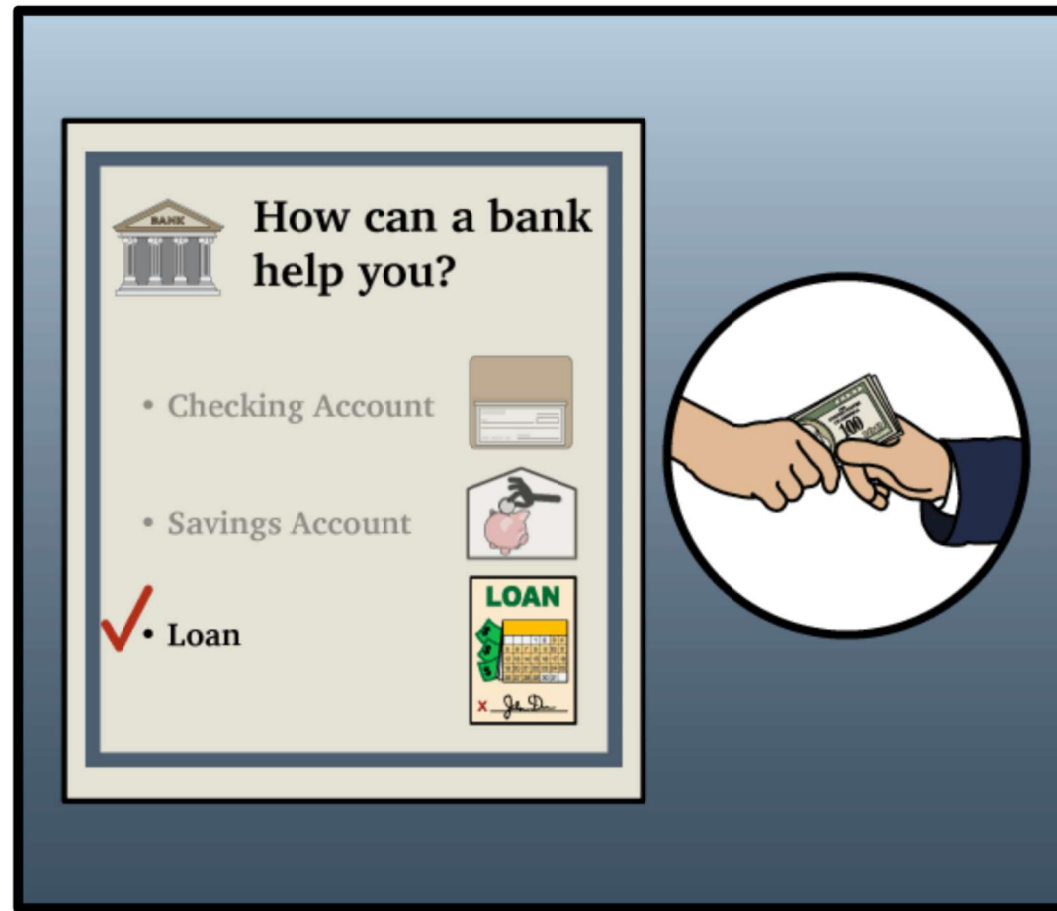
**Kirk can use a debit card to buy things.  
The money comes from his checking account.**



**Kirk puts money into a savings account.  
He wants to save for big things.  
The bank will keep his money safe.**

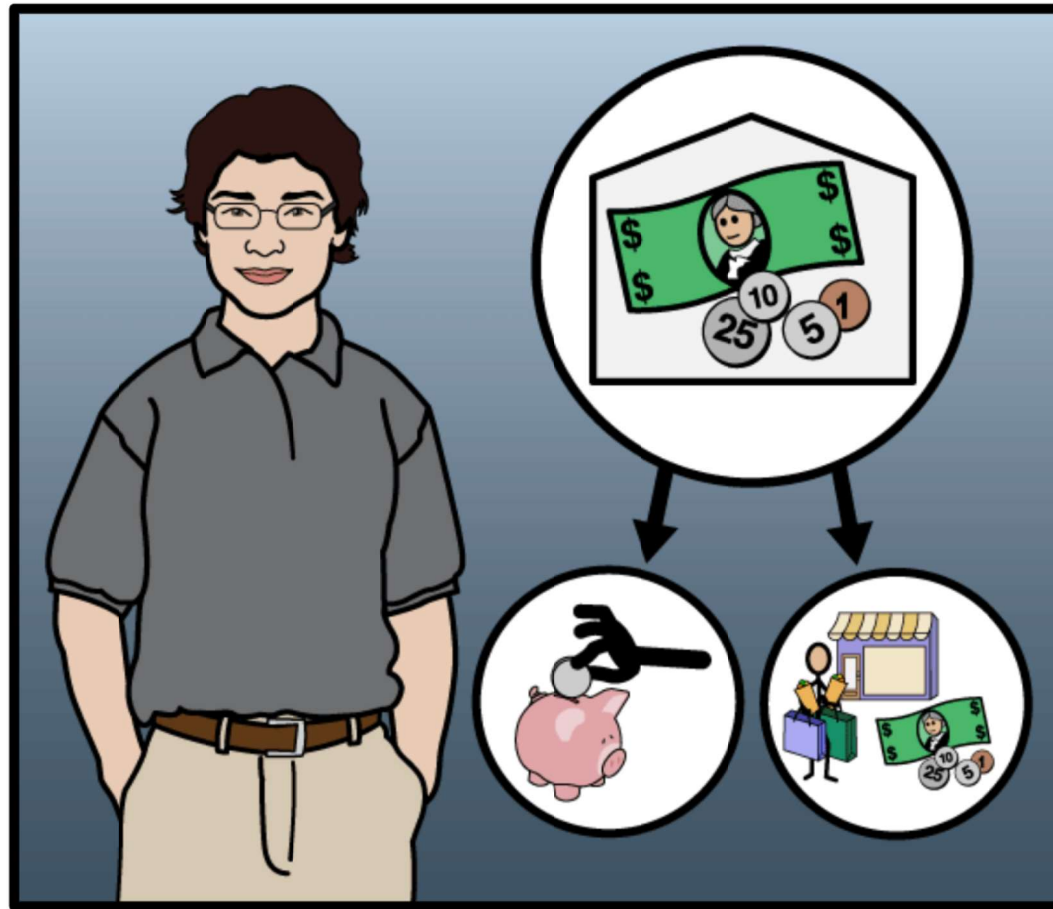


**Kirk can earn money from his savings account.**  
**Kirk keeps his money in the bank.**  
**The bank gives him more money.**



**People can get a loan from the bank.  
They use the money now.  
They pay the money back later.**

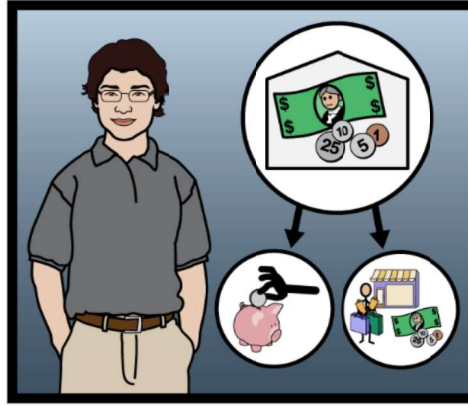




**A bank is helpful.**

**A bank keeps Kirk's money safe.**

**It helps him save and spend his money.**



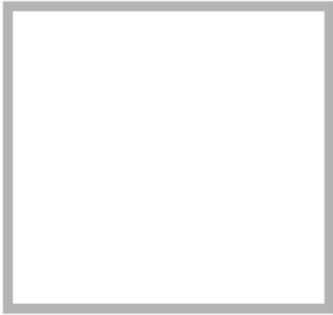
# The End

**Name:** \_\_\_\_\_

1. Kirk needs a safe place to keep his



2. A



is a safe place.

3. A bank is



.

4. Kirk's mother helps him open up



.

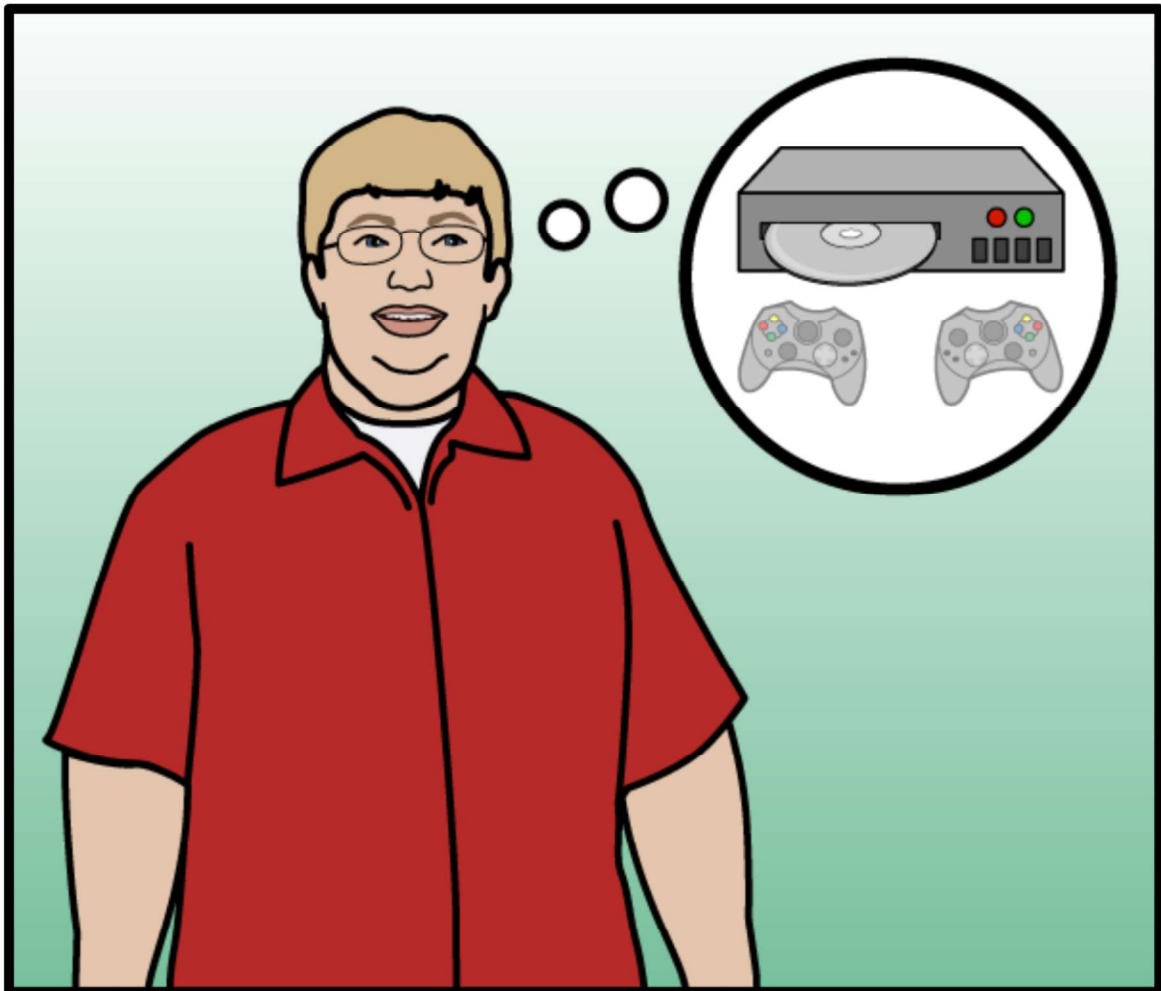
5. Kirk can



money for the big things he wants.

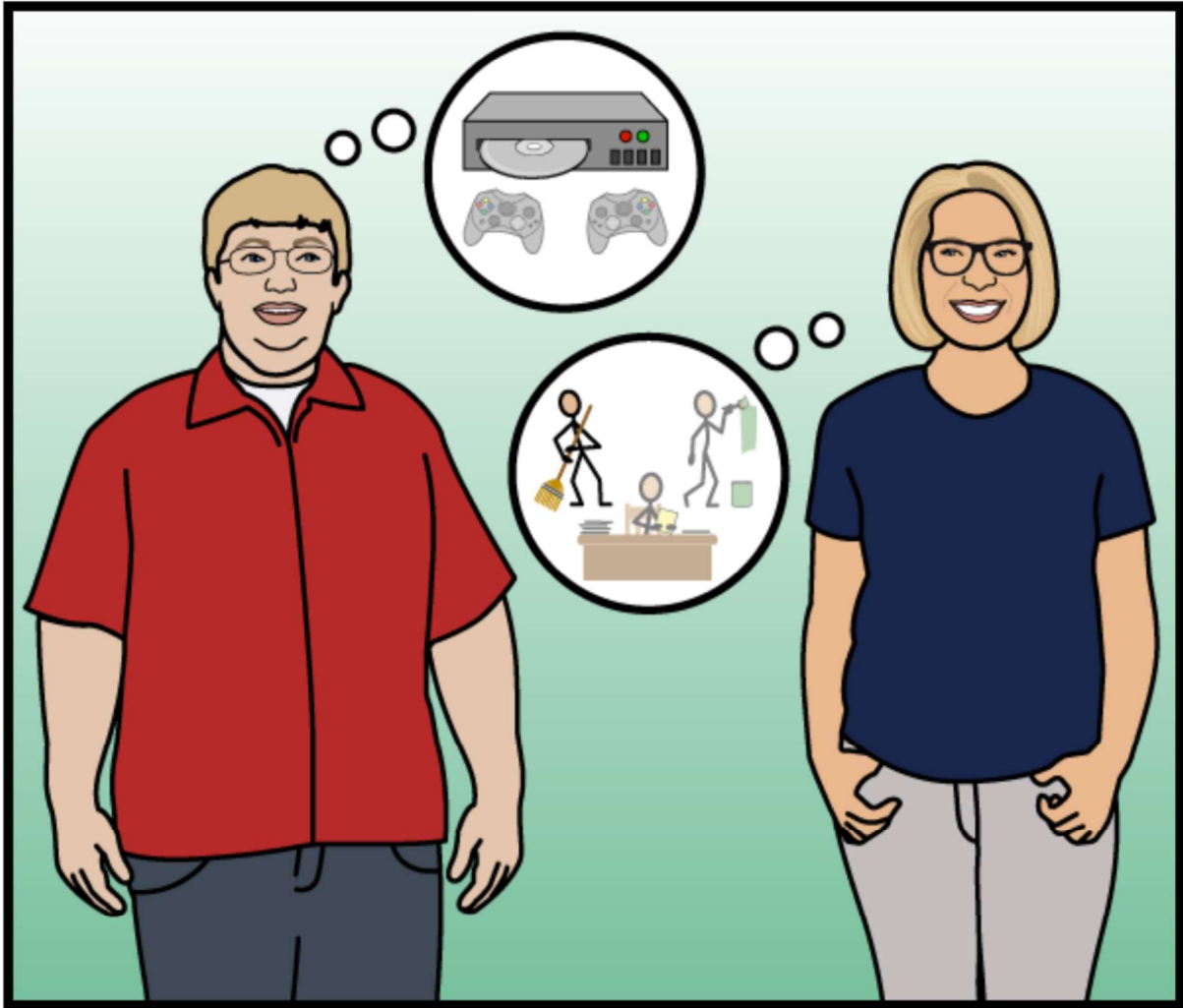
# Chapter 1:

# Mark Wants a Video Game System





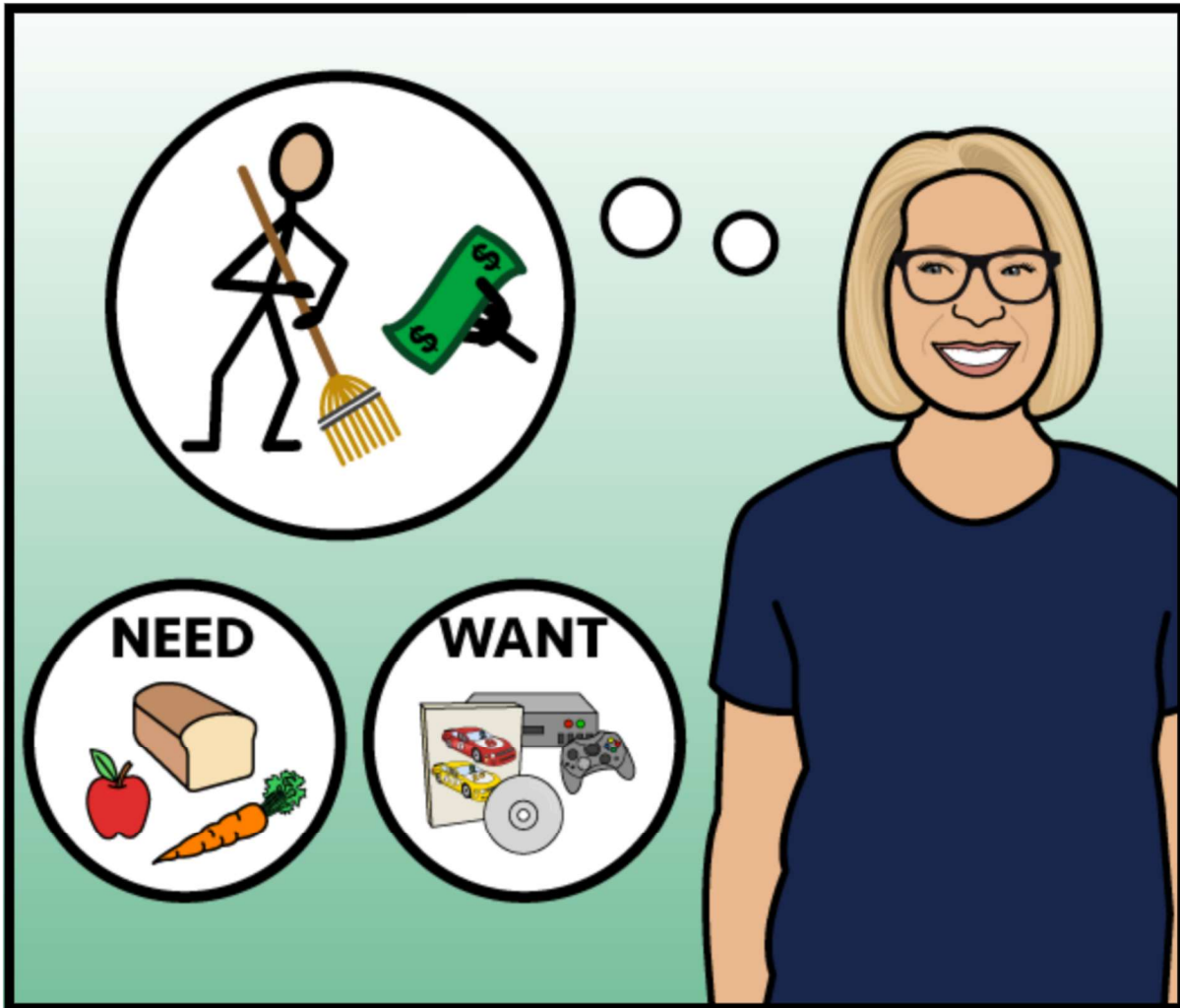
**Mark and John are playing video games. They are playing on John's video game system. Mark wants a video game system.**



**Mark talks to his mother. He asks if he can buy a video game system.**

**Mark's mother tells him to get a job.**

**A job can help Mark pay for a video game system.**



**A job gives people money for doing work. They can buy what they want or need. Mark can earn money from a job. Then, he can buy the video game system.**





**Mark thinks about jobs he can get.  
His friend John works at the grocery  
store. Mark thinks about working at  
the grocery store.**






**Mark goes to the grocery store. He asks if they have a job he can do. The grocery store needs grocery baggers. What do grocery baggers do ?**



**Grocery baggers put groceries into bags for people. They carry the bags to people's cars. They need to be kind and help people. Mark likes this job.**



**Application for Employment**

**Personal Information**

Name \_\_\_\_\_ City \_\_\_\_\_

Address \_\_\_\_\_ Email \_\_\_\_\_

Phone Number \_\_\_\_\_

Are You A U.S. Citizen? Yes ☐ No ☐

If Selected For Employment Are You Willing To Submit to a Pre-Employment Drug test? Yes ☐ No ☐

**Position**

Position You Are Applying For \_\_\_\_\_ Available Start Date \_\_\_\_\_

Employment Desired ☐ Full-Time ☐ Part-Time ☐ Temporary

**Education**

School Name	Location	Years Attended	Degree	Major

**References**

Name	Title	Company	Phone

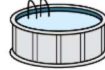
**Mark gets a form to fill out for the job. He is happy he might get a job. Mark wants to earn money. Then, he can buy a video game system.**

## 1. What is this chapter about?

a. wanting a video game system



b. playing in the pool



c. going to the movies



## 2. What can help Mark pay for a video game system?

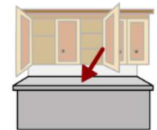
a. bag



b. job



c. counter



## 3. What does a job give people for doing work?

a. money



b. flowers



c. toys

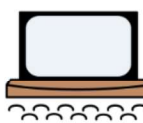


## 4. Where does Mark think about working?

a. bike shop



b. movie theater




c. grocery store



## 5. What is important to know about this chapter?

☐ a. Mark and John eat lunch. 

☐ b. Mark wants to earn money. 

☐ c. Mark wants to work at the zoo. 

# Chapter 2:

## Mark Gets Hired

**Application for Employment**

**Personal Information**

Name Mark

Address 620 Pulaski St. City \_\_\_\_\_

Phone Number \_\_\_\_\_ Email \_\_\_\_\_

Are You A U.S. Citizen?  
 Yes ☐ No ☐

If Selected For Employment Are You Willing To Su  
 Yes ☐ No ☐

**Position**

Position You Are Applying For \_\_\_\_\_ Available Start Date \_\_\_\_\_


Employment Desired  
☐ Full Time ☐ Part Time ☐ Temporary

**Education**

School Name	Location	Years Attended	Degree

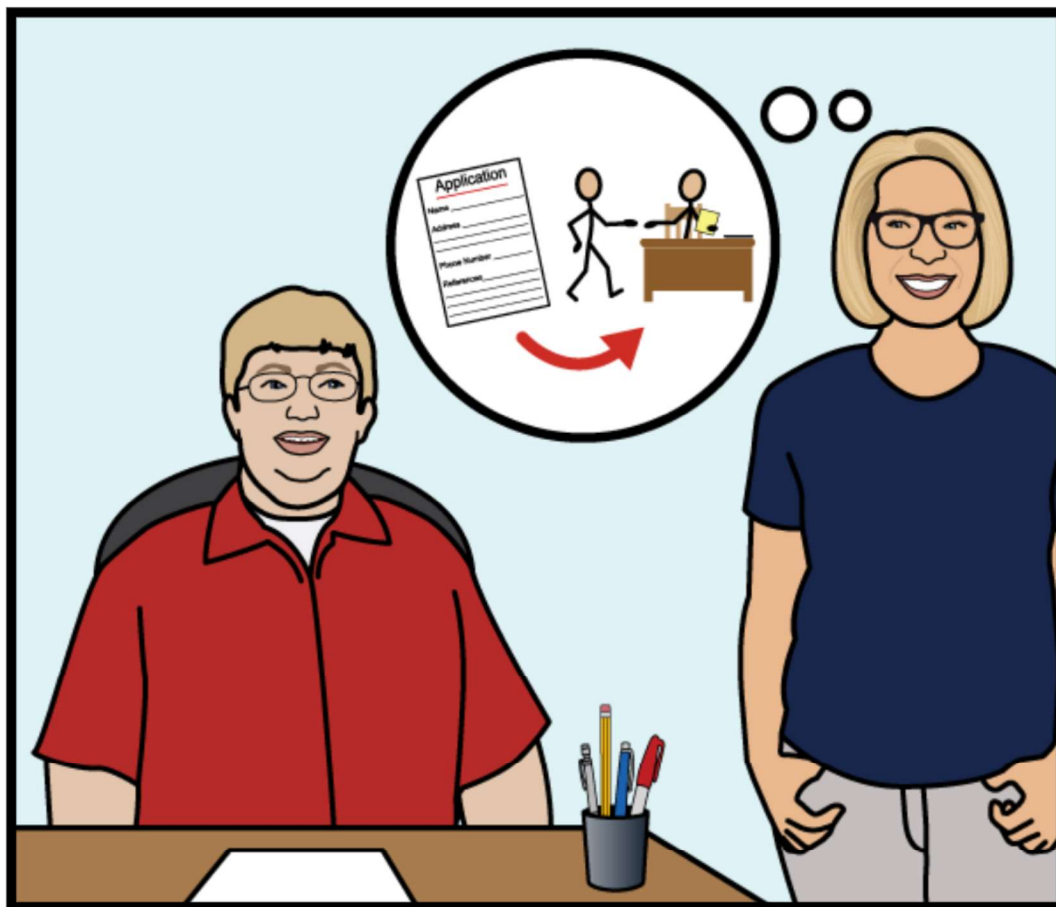
**References**

Name	Title	Company	Phone



The illustration shows a large hand holding a pen, writing on the 'Application for Employment' form. To the right of the form is a circular inset depicting a stick figure standing and talking to another stick figure who is sitting at a desk with a computer monitor and papers, representing a hiring process.





**People need to fill out forms to get jobs. Businesses look at the forms. They pick the best person for the job. The person is hired to do the job. Mark will fill out a form to get a job.**



The illustration shows a hand holding a pen, writing on a form titled "Application for Employment". The form is divided into several sections with blue headers: "Personal Information", "Position", and "Education".

**Personal Information**

Name Mark	
Address 620 Pulaski St.	City
Phone Number	E
Are You A U.S. Citizen? Yes <input type="checkbox"/> No <input type="checkbox"/>	
If Selected For Employment Are You Willing To Submit to Yes <input type="checkbox"/> No <input type="checkbox"/>	

**Position**

Position You Are Applying For	Available Start Date
-------------------------------	----------------------

Employment Desired  
☐ Full Time ☐ Part Time ☐

**Education**

School Name	Location	Years Attended	D

**Mark writes his name and birthdate. He writes his address and phone number. He doesn't write down any jobs he has had. This will be Mark's first job.**

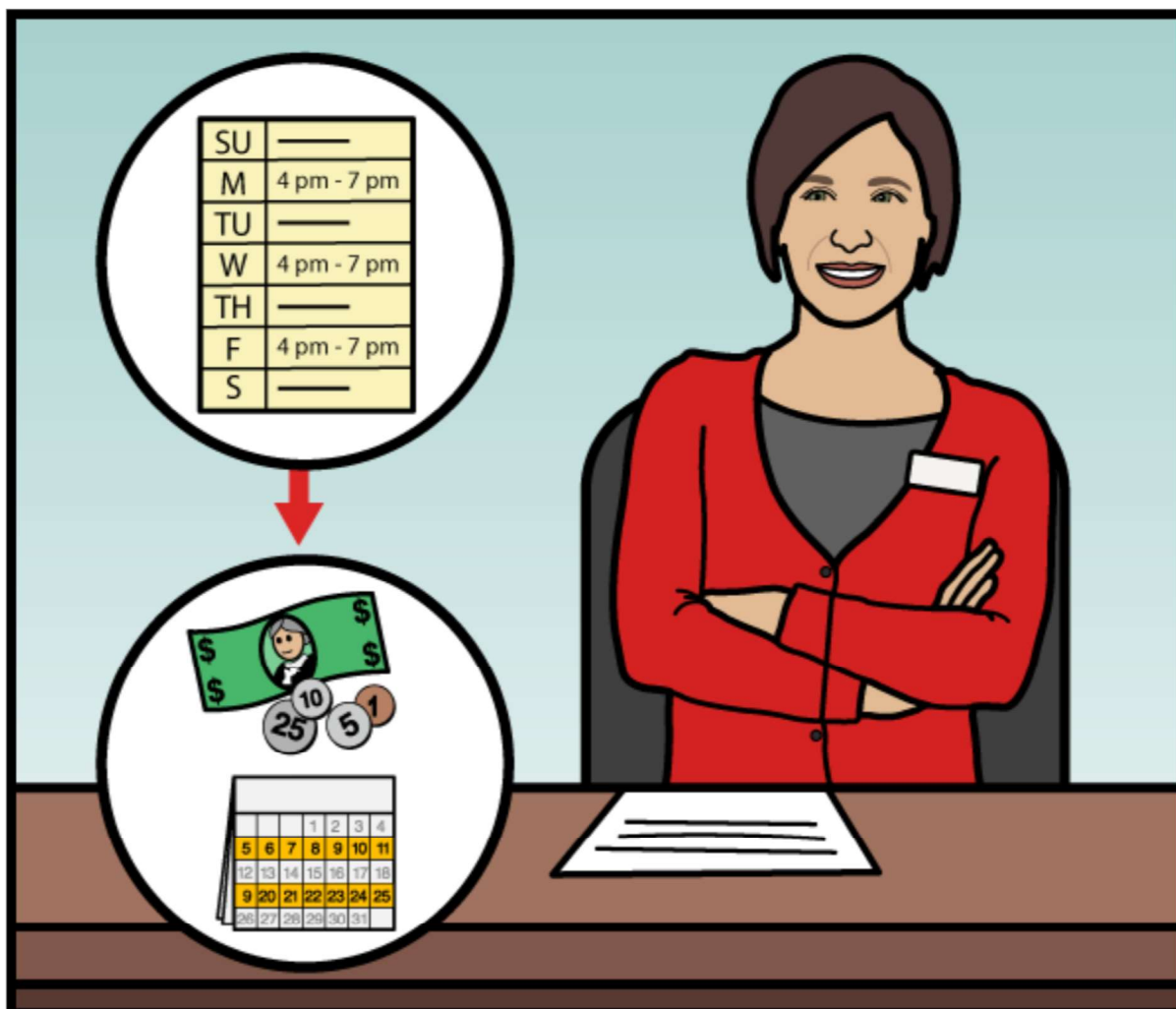


**A grocery bagger needs to be helpful and kind. Mark writes about how he is helpful and kind. He helps his mother carry groceries. He opens doors for people.**





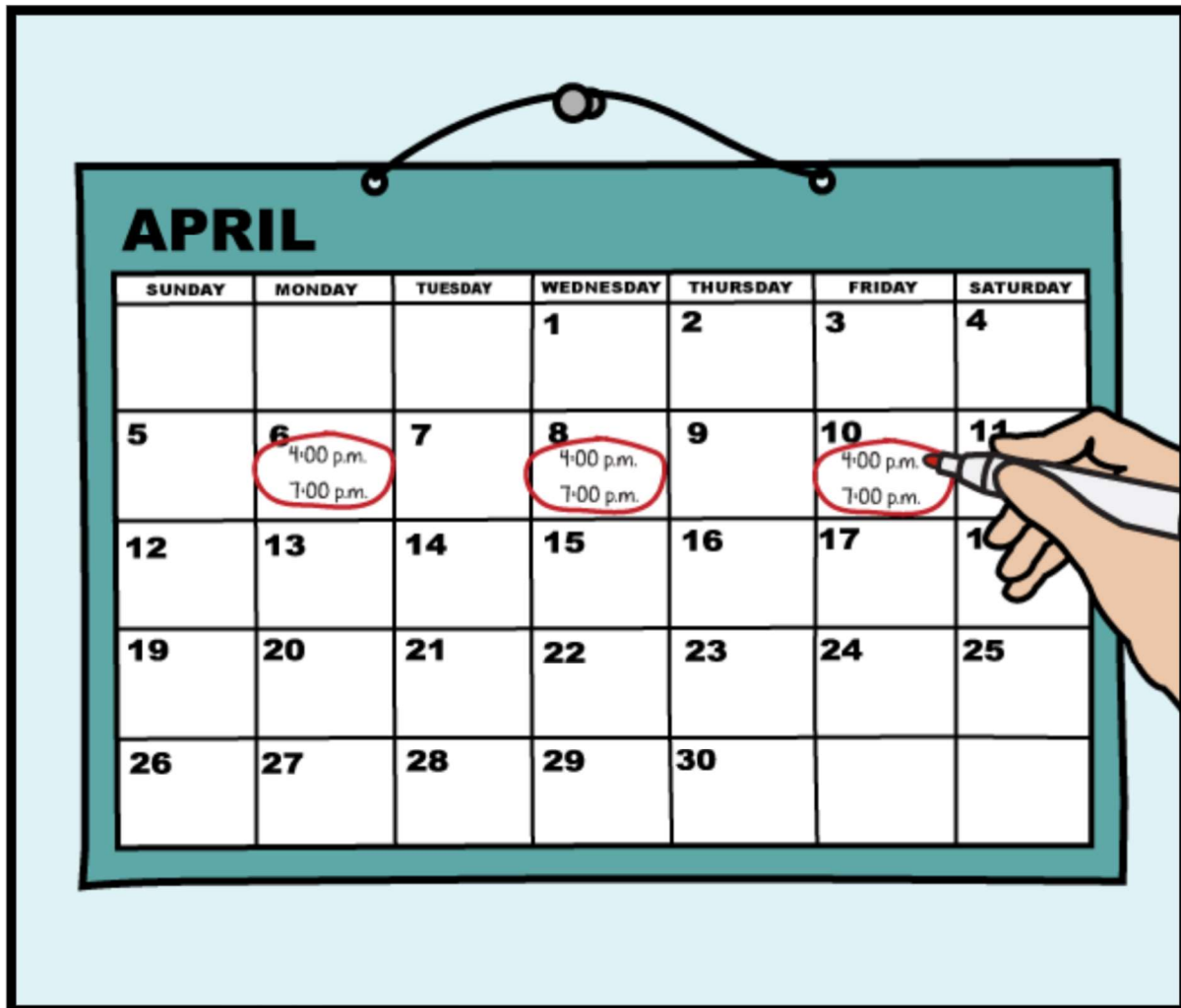
**Mark gives the form to the store manager. The store manager talks to him. She asks him questions. Then, Mark gets the job !**



**Mark will work three days a week.**

**He will earn money while he works.**

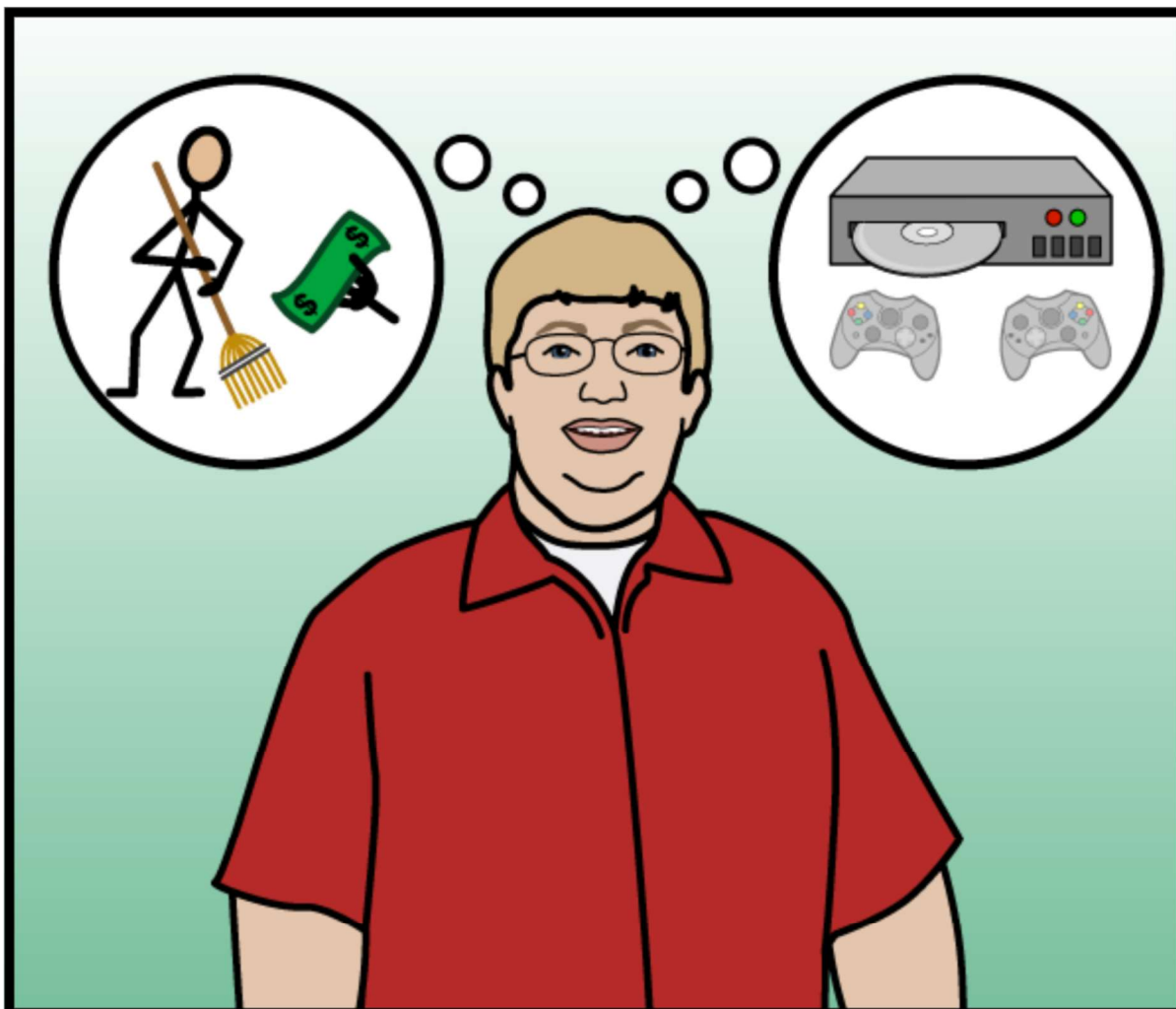
**Mark can spend his money on things he wants. He can spend his money on things he needs.**



**Mark wants to be good at his job.**

**Mark needs to follow his schedule.**


**He needs to be on time. He writes down his schedule at home.**



**Mark is happy he got hired for the job. Now, he can earn money. He can spend the money on a video game system. Mark is ready to start his first job.**

Name: \_\_\_\_\_

1. Mark will fill out a  to get a job.

2. Mark gives the form to the store  .

3. Mark will  three days a week.

4. Mark needs to follow his  .

5. Mark is happy he got  for the job.



Mary Beth is counting items at the bank.  
She counts 6 deposit slips. She counts 1 loan application.  
How many items does Mary Beth count altogether?

Number of deposit slips Mary Beth counts:



6

Number of loan applications Mary Beth counts:



+

1



How many items does Mary Beth count altogether?



Ryan and Randy are passing out lollipops to customers at the bank. Ryan passes out 2 lollipops. Randy passes out 4 lollipops. How many lollipops do they pass out altogether?

Number of lollipops Ryan passes out:



2

Number of lollipops Randy passes out:



+

4



Number of lollipops they pass out altogether?



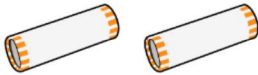


Danielle is collecting items from bank tellers at the bank.  
She collects 3 money envelopes and 2 coin wrappers.  
How many items does Danielle collect altogether?

Number of money envelopes Danielle collects:



Number of coin wrappers Danielle collects:



**3**

Number of  
money envelopes

+

**2**

Number of  
coin wrappers

=

Number of items  
altogether?



Randy is stacking items on a counter at the bank.  
He stacks 7 deposit slips. He stacks 3 loan applications.  
How many items does Randy stack altogether?

Number of deposit slips Randy stacks:



Number of loan applications Randy stacks:



**7**

Number of  
deposit slips

+

**3**

Number of  
loan applications

=

Number of  
items altogether?



Ryan is giving out items to customers.  
He gives out 10 coin wrappers and 4 lollipops.  
How many items does Ryan give out altogether?



Number of coin wrappers Ryan gives out:

1	0
---	---

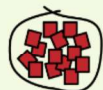


Number of lollipops Ryan gives out:

	4
--	---

+

---



How many items does Ryan give out altogether?

--	--



Mary Beth is setting out items on counters at the bank.  
She sets out 7 deposit slips. She sets out 8 money envelopes.  
How many items does Mary Beth set out on counters altogether?



Number of deposit slips Mary Beth sets out on counters:

1	1
---	---



Number of money envelopes Mary Beth sets out on counters:

	4
--	---

+

---



How many items does Mary Beth set out on counters altogether?

--	--





Brent and Danielle are greeting customers at the bank.  
Brent greets 14 customers. Danielle greets 2 customers.  
How many customers do they greet altogether?

14

+

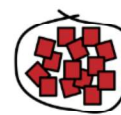
2

=

Number of  
customers  
Brent greets

Number of  
customers  
Danielle greets

Number of  
customers they  
greet altogether?



Mary Beth and Randy are unpacking coin wrappers at the bank.  
Mary Beth unpacks 6 coin wrappers. Randy unpacks 5 coin  
wrappers. How many coin wrappers do they unpack altogether?

6

+

5

=

Number of  
coin wrappers  
Mary Beth unpacks

Number of  
coin wrappers  
Randy unpacks

Number of coin  
wrappers they  
unpack altogether?





Mary Beth is counting items at the bank. She counts 22 loan applications, 13 deposit slips and 4 money envelopes. How many items does Mary Beth count altogether?



Number of loan applications Mary Beth counts:

2	2
---	---



Number of deposit slips Mary Beth counts:

1	3
---	---



Number of money envelopes Mary Beth counts: +

	4
--	---



How many items does Mary Beth count altogether?

--	--



Danielle is passing out items to customers at the bank. She passes out 12 lollipops, 15 coin wrappers and 10 loan applications. How many items does Danielle pass out altogether?



Number of lollipops Danielle passes out:

1	2
---	---



Number of coin wrappers Danielle passes out:

1	5
---	---



Number of loan applications Danielle passes out:

+	1	0
---	---	---



How many items does Danielle pass out altogether?

--	--



Randy is putting items on counters at the bank. He puts 13 deposit slips, 11 money envelopes and 21 loan applications on counters. How many items does Randy put on counters altogether?

**13**

+

**11**

+

**21**

=

Number of  
deposit slips  
Randy puts  
on counters



Number of money  
envelopes  
Randy puts  
on counters



Number of  
loan applications  
Randy puts on  
counters



Number of items  
Randy puts on  
counters  
altogether?



Ryan is counting items at the bank. He counts 16 coin wrappers, 10 lollipops and 12 deposit slips. How many items does Ryan count altogether?

**16**

+

**10**

+

**12**

=

Number of coin  
wrappers Ryan  
counts



Number of  
lollipops Ryan  
counts



Number of  
deposit slips  
Ryan counts



Number of items  
Ryan counts  
altogether?





Randy is sorting items into piles at the bank for the bank tellers. He sorts 68 money envelopes and 21 loan applications. How many items does Randy sort into piles altogether?



68 money envelopes



21 loan applications



Number of money envelopes Randy sorts into piles:

6	8
---	---

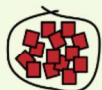


Number of loan applications Randy sorts into piles:

2	1
---	---

+

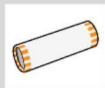
--	--



How many items does Randy sort into piles altogether?



Mrs. B's class is counting items at the bank. They count 41 coin wrappers and 35 deposit slips. How many items do they count altogether?



41 coin wrappers



35 deposit slips



Number of coin wrappers they count:

4	1
---	---



Number of deposit slips they count:

3	5
---	---

+

--	--



How many items do they count altogether?





Randy is unpacking items from a box at the bank.  
He unpacks 45 lollipops. He unpacks 53 money envelopes.  
How many items does Randy unpack from a box altogether?



45 lollipops



53 money envelopes



+



=



Number of  
lollipops Randy  
unpacks

Number of  
money envelopes  
Randy unpacks

Number of items  
Randy unpacks  
from a box  
altogether?



Mrs. B's class is stacking items into piles at the bank.  
They stack 80 deposit slips and 10 loan applications.  
How many items does the class stack into piles altogether?



80 deposit slips



10 loan applications



+



=



Number of deposit  
slips Mrs. B's  
class stacks

Number of loan  
applications Mrs. B's  
class stacks

Number of items  
Mrs. B's class stacks  
into piles altogether?



Math Story 9  
Adding 2-Digit Numbers - Carrying Guide



Cut down the middle and attach two columns together to create a vertical guide for students.

**Step 1: Set up your addition problem.**



Danielle has  
26 photos.

2	6
---	---



Brent has  
18 photos.

+

1	8
---	---

Add this side first.

--	--

**Step 4: Carry the number.**

Write the number  
1 in the box.

1	2	6
---	---	---

+

1	8
---	---

	4
--	---

**Step 2: Add.**

6
+ 8
<hr/>
14

**Step 5: Add the other side.**

1
2
+ 1
<hr/>
4

Write the 4 down.

1	2	6
---	---	---

+

1	8
---	---

4	4
---	---

**Step 3: Write down the number.**

6
+ 8
<hr/>
14

2	6
---	---

+

1	8
---	---

	4
--	---

Write the number  
4 on this side.

**You have your answer!**

1	2	6
---	---	---

+

1	8
---	---

4	4
---	---

The answer  
is 44 !

**Math Story 9**  
**Adding 2-Digit Numbers - Carrying Guide**



Cut down the middle and attach two columns together to create a vertical guide for students.

<p><b>Step 1: Set up your addition problem.</b></p> <div style="text-align: right; margin-right: 50px;">         +  <hr style="width: 50%; margin: 10px auto;"/>  </div> <p>Add this side first. </p>	<p><b>Step 4: Carry the number.</b></p> <p>Write the number in the box. </p> <div style="text-align: right; margin-right: 50px;">         +  <hr style="width: 50%; margin: 10px auto;"/>  </div>
<p><b>Step 2: Add.</b></p> <div style="text-align: center; margin-top: 100px;">       +  <hr style="width: 20%; margin: 10px auto;"/> </div>	<p><b>Step 5: Add the other side.</b></p> <div style="text-align: right; margin-right: 50px;">         +  <hr style="width: 50%; margin: 10px auto;"/>  </div> <p>Write the number down. </p>
<p><b>Step 3: Write down the number.</b></p> <div style="text-align: right; margin-right: 50px;">         +  <hr style="width: 50%; margin: 10px auto;"/>  </div> <p>Write the number on this side. </p>	<p><b>You have your answer!</b></p> <div style="text-align: right; margin-right: 50px;">         +  <hr style="width: 50%; margin: 10px auto;"/>  </div> <p>Here is the answer! </p>





Danielle is collecting items from bank tellers at the bank. She collects 42 coin wrappers and 28 money envelopes. How many items does Danielle collect altogether?



42 coin wrappers



28 money envelopes



Number of coin wrappers Danielle collects:

4	2
---	---



Number of money envelopes Danielle collects: +

2	8
---	---



How many items does Danielle collect altogether?

--	--



Ryan is sorting items into piles at the bank. He sorts 53 loan applications and 39 deposit slips. How many items does Ryan sort into piles altogether?



53 loan applications



39 deposit slips



Number of loan applications Ryan sorts into piles:

5	3
---	---



Number of deposit slips Ryan sorts into piles: +

3	9
---	---



How many items does Ryan sort into piles altogether?

--	--



Mary Beth is passing out items to customers at the bank. She passes out 57 lollipops and 25 money envelopes. How many items does Mary Beth pass out altogether?



57 lollipops



25 money envelopes



Number of lollipops Mary Beth passes out:

5	7
---	---



Number of money envelopes Mary Beth passes out:

2	5
---	---

+

--	--



How many items does Mary Beth pass out altogether?



Brent is stacking items on counters at the bank. He stacks 19 deposit slips and 23 loan applications. How many items does Brent stack on counters altogether?



19 deposit slips



23 loan applications



Number of deposit slips Brent stacks:

1	9
---	---



Number of loan applications Brent stacks:

2	3
---	---

+

--	--



How many items does Brent stack on counters altogether?



Danielle is sorting items into piles at the bank.  
She sorts 49 coin wrappers and 34 money envelopes.  
How many items does Danielle sort into piles altogether?



49 coin wrappers



34 money envelopes



Number of coin wrappers Danielle sorts into piles:

4	9
---	---



Number of money envelopes Danielle sorts into piles:

+

3	4
---	---



How many items does Danielle sort into piles altogether?

--	--



Mary Beth is passing out items to customers at the bank.  
She passes out 75 lollipops and 19 loan applications.  
How many items does Mary Beth pass out altogether?



75 lollipops



19 loan applications



Number of lollipops Mary Beth passes out:

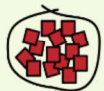
7	5
---	---



Number of loan applications Mary Beth passes out:

+

1	9
---	---





How many items does Mary Beth pass out altogether?

--	--



Cut down the middle and attach two columns together to create a vertical guide for students.

**Step 1: Set up your addition problem.**

 Danielle has 265 photos.  
 Brent has 187 photos.

2	6	5
1	8	7
<hr/>		

Add this side first.

**Step 4: Carry the number.**

1	
6	
+ 8	
<hr/>	
15	

Write the number 1 in the box.  
Write the number 5 in the middle.

2	6	5
1	8	7
<hr/>		
5	2	

**Step 2: Add.**

$$\begin{array}{r} 5 \\ + 7 \\ \hline 12 \end{array}$$

**Step 5: Add the other side.**

1	
2	
+ 1	
<hr/>	
4	

Write the 4 down.

2	6	5
1	8	7
<hr/>		
4	5	2

**Step 3: Write down the number.**

5	
+ 7	
<hr/>	
12	

Write the number 1 in the box.  
Write the number 2 on this side.

2	6	5
1	8	7
<hr/>		
		2

**You have your answer!**

2	6	5
1	8	7
<hr/>		
4	5	2

The answer is 452 !



**Math Story 13**  
**Adding 3-Digit Numbers - Guide**



Cut down the middle and attach two columns together to create a vertical guide for students.

Step 1: Set up your addition problem.	
<p>Add this side first.</p>	<p>Write the number 1 in the box. Write the number in the middle.</p>
	<p>Write the number down.</p>
<p>Write the number 1 in the box. Write the number on this side.</p>	<p>This is the answer!</p>



Randy and Ryan are greeting customers at the bank.  
Randy greets 100 customers. Ryan greets 156 customers.  
How many customers do they greet altogether?



Randy greets  
100 customers



Ryan greets  
156 customers



Number of customers Randy greets:

1	0	0
---	---	---



Number of customers Ryan greets:

+

1	5	6
---	---	---



How many customers do they greet altogether?

--	--	--



Danielle is counting items at the bank.  
She counts 246 deposit slips and 113 money envelopes.  
How many items does Danielle count altogether?



246 deposit slips



113 money envelopes



Number of deposit slips Danielle counts:

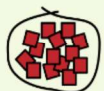
2	4	6
---	---	---



Number of money envelopes Danielle counts:

+

1	1	3
---	---	---



How many items does Danielle count altogether?

--	--	--



Mrs. B's class is handing out items at the bank.  
They hand out 132 coin wrappers and 91 lollipops.  
How many items do they hand out altogether?



132 coin wrappers



91 lollipops



Number of coin wrappers the class hands out:

1	3	2
---	---	---



Number of lollipops the class hands out: +

	9	1
--	---	---



How many items do they hand out altogether?

--	--	--



Brent is stacking items on counters at the bank.  
He stacks 119 deposit slips and 190 loan applications.  
How many items does Brent stack on counters altogether?



119 deposit slips



190 loan applications



Number of deposit slips Brent stacks:

1	1	9
---	---	---



Number of loan applications Brent stacks:

1	9	0
---	---	---



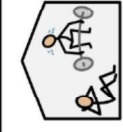
How many items does Brent stack on counters altogether?

--	--	--



# Where do students work?

**12%**  
**Office**



**6%**  
**Recreation Center**

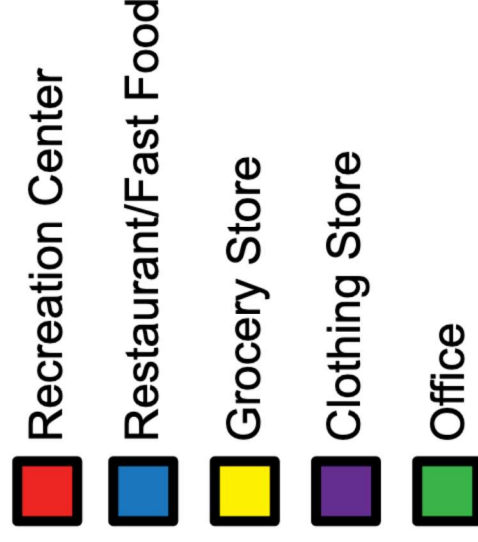
**18%**  
**Clothing Store**



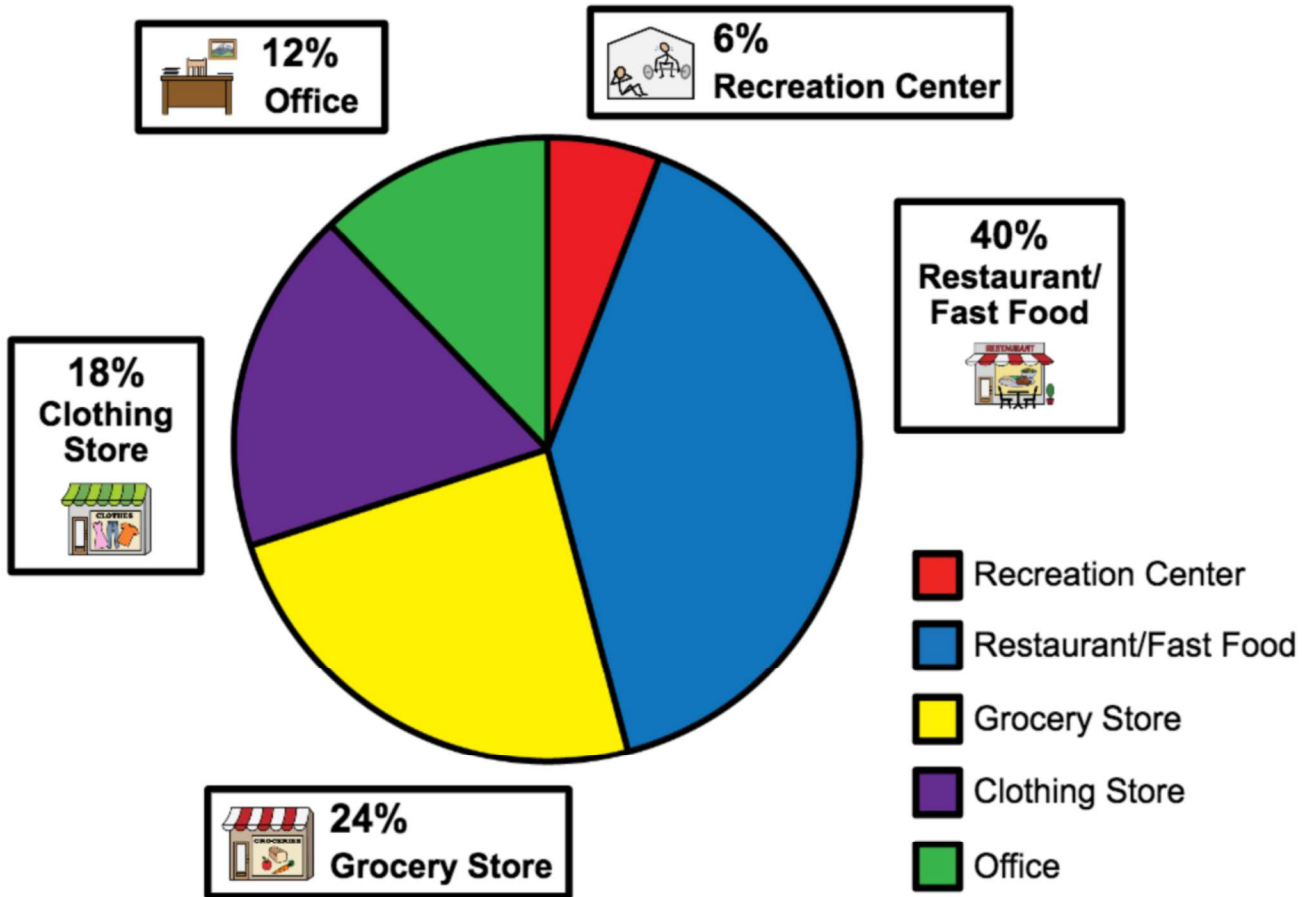
**40%**  
**Restaurant/  
Fast Food**



**24%**  
**Grocery Store**



## Where do students work?



1. What percentage of students work at a restaurant/fast food location?

---

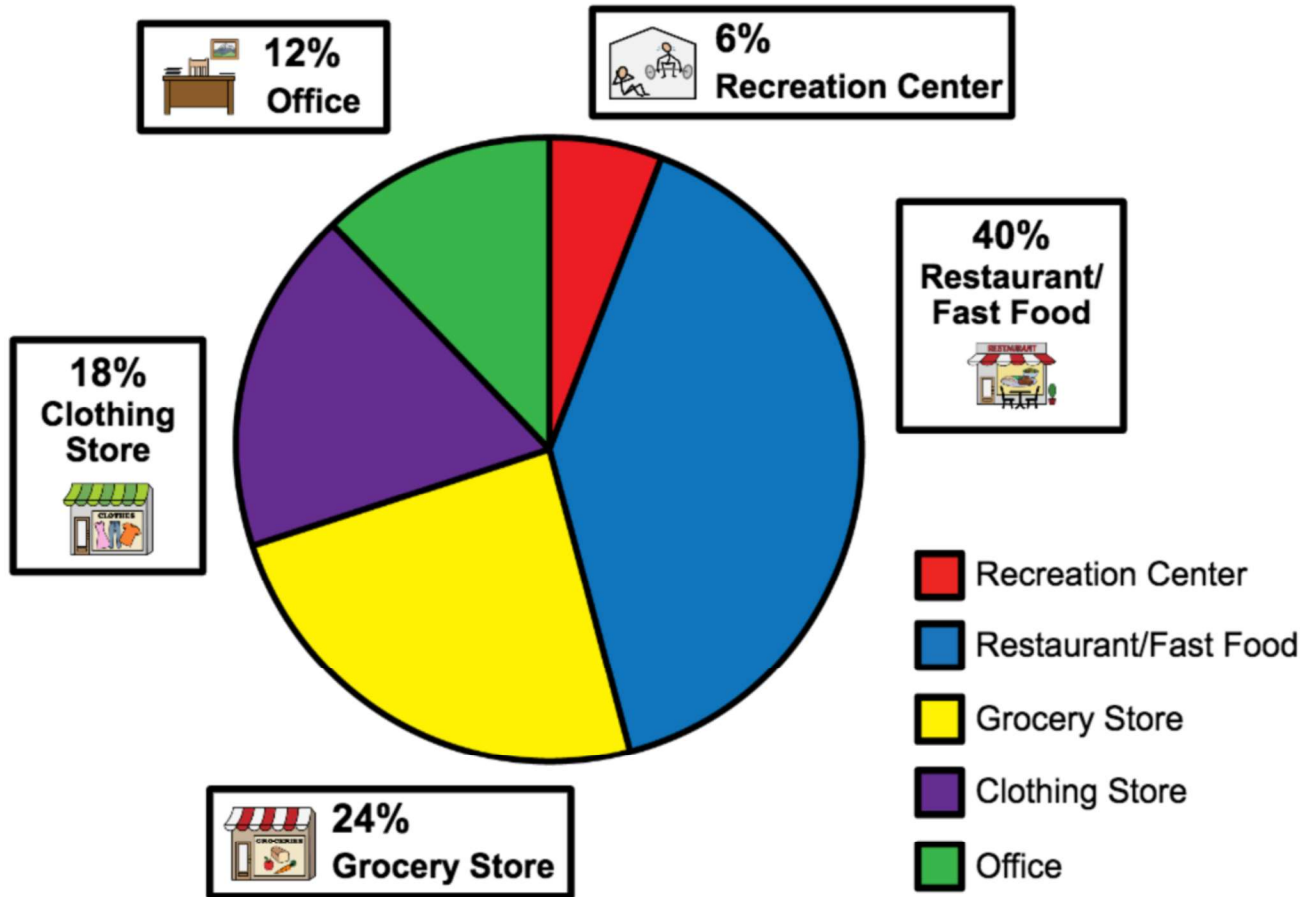
2. Do more students work in an office or clothing store?

---

3. What percentage of students work at a grocery store?

---

## Where do students work?



4. Where do the most amount of students work?

---

5. Where do the least amount of students work?

---

# Where would you like to work?

10					
9					
8					
7					
6					
5					
4					
3					
2					
1					

outside



at home



office



restaurant

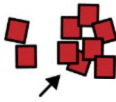
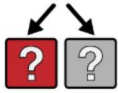


hospital



Name: \_\_\_\_\_

Which had more ?



outside



at home



office



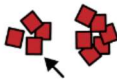
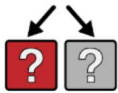
restaurant



hospital



Which had less ?



outside



at home



office



restaurant



hospital



Were any the same ?



outside



at home



office



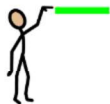
restaurant



hospital



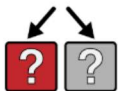
What was the highest number ?



1 2  
3 4

\_\_\_\_\_

Which was your favorite ?



outside



at home



office



restaurant



hospital





# Clues Guide 1

## Write and Simplify Addition Expressions

**+**

**Write and simplify an addition expression when you see these words:** *How many **altogether**?*

**Write the expression:** Fill in the empty spaces with the known number. Write the variable for the unknown number in the empty space.

***A***

**+**

***B***

**+**

**Simplify the expression.**

1. Replace the unknown variable with the given number.

***A***

**+**

***B***

**+**

**Simplify the expression.**

2. Add the numbers together. Write the sum in the empty space.

***A + B***

# + Expressions



use manipulatives  
or calculator to simplify



Mary Beth and Danielle are feeding dogs at the animal shelter.

**A**  Mary Beth feeds 9 dogs.

**B**  Danielle feeds B dogs.



Write an expression for the number  
of dogs they feed altogether.



Write the expression.

<i>A</i>	+	<i>B</i>
_____	_____	_____



Danielle feeds 7 dogs.  
How many dogs do they feed altogether?

Simplify the expression to find the answer.

<i>A</i>	+	<i>B</i>
_____	_____	_____

\_\_\_\_\_



# + Expressions



use manipulatives  
or calculator to simplify



Mary Beth and Danielle are feeding dogs at the animal shelter.

**A**  Mary Beth feeds 9 dogs.

**B**  Danielle feeds B dogs.



Write an expression for the number  
of dogs they feed altogether.

Write the expression.

<b>A</b>	<b>+</b>	<b>B</b>
_____	<b>+</b>	_____



Danielle feeds 7 dogs.  
How many dogs do they feed altogether?

Simplify the expression to find the answer.

<b>A</b>	<b>+</b>	<b>B</b>
_____	<b>+</b>	_____

\_\_\_\_\_

# + Expressions



use manipulatives  
or calculator to simplify



Mary Beth and Danielle are putting books on shelves at the library.

**A**  Mary Beth puts A books on shelves.

**B**  Danielle puts 12 books on shelves.



Write an expression for the number of books they put on shelves altogether.

Write the expression.

A	+	B
_____	_____	_____



Mary Beth puts 15 books on shelves.  
How many books do they put on shelves altogether?

Simplify the expression to find the answer.

A	+	B
_____	_____	_____

\_\_\_\_\_

# + Expressions



use manipulatives  
or calculator to simplify



Mary Beth and Danielle are putting books on shelves at the library.

**A**  Mary Beth puts  $A$  books on shelves.

**B**  Danielle puts 12 books on shelves.



Write an expression for the number of books they put on shelves altogether.

Write the expression.

$A$	$+$	$B$
_____	$+$	_____



Mary Beth puts 15 books on shelves.  
How many books do they put on shelves altogether?

Simplify the expression to find the answer.

$A$	$+$	$B$
_____	$+$	_____

\_\_\_\_\_



NEED



# experiment

## Changing Pennies

Experiment



$\frac{1}{4}$  C white vinegar



1 t salt



glass bowl



wooden spoon



10 pennies (1981 or earlier)



paper towel, folded in half



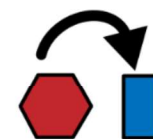
### What We Know:

- Pennies are usually made of zinc and copper.
- Pennies are usually brown in color.
- Older pennies look different than newer pennies.



### Step 1: Ask a Question

- Can pennies change color?

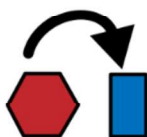


### Step 2: Make a Guess / Hypothesis

I think...



I can make a penny change color.



I can't make a penny change color.



My guess:

---



---



---

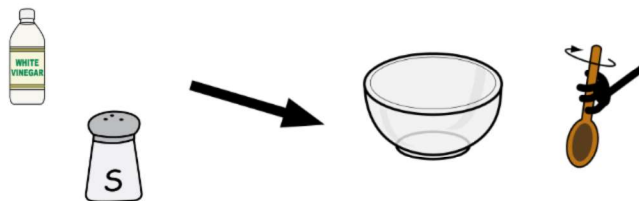


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## Step 3: Do an Experiment

1. Put vinegar and salt into bowl.  
Stir until salt dissolves.



2. Put pennies into vinegar and salt mixture.



3. Let pennies sit in mixture for 5 minutes.



4. Take pennies out of bowl and put onto paper towel.





## Step 3: Do an Experiment

---

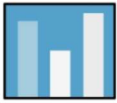
5. Check the pennies throughout the day.























6. Record results on the chart.







## Step 4: Organize Data

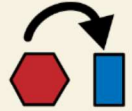
Time on Paper Towel	Do the pennies look the same as they did before they were put in the vinegar and salt?	What color are the pennies?	What do the pennies look like?
<b>10</b>  <b>10 minutes</b>	yes  no 	<input type="checkbox"/> brown <input type="checkbox"/> green <input type="checkbox"/> white <input type="checkbox"/> blue <input type="checkbox"/> other: _____	
<b>20</b>  <b>20 minutes</b>	yes  no 	<input type="checkbox"/> brown <input type="checkbox"/> green <input type="checkbox"/> white <input type="checkbox"/> blue <input type="checkbox"/> other: _____	
<b>30</b>  <b>30 minutes</b>	yes  no 	<input type="checkbox"/> brown <input type="checkbox"/> green <input type="checkbox"/> white <input type="checkbox"/> blue <input type="checkbox"/> other: _____	
<b>40</b>  <b>40 minutes</b>	yes  no 	<input type="checkbox"/> brown <input type="checkbox"/> green <input type="checkbox"/> white <input type="checkbox"/> blue <input type="checkbox"/> other: _____	
<b>1</b>  <b>1 hour</b>	yes  no 	<input type="checkbox"/> brown <input type="checkbox"/> green <input type="checkbox"/> white <input type="checkbox"/> blue <input type="checkbox"/> other: _____	





## Step 5: Find the Conclusion

Did some pennies change color?



yes



no



What colors did you see on the pennies?



brown



green



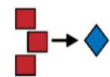
white



blue



other  
color



How long did it take for the pennies to start changing colors?



10 min

10

20 min

20

30 min

30

40 min

10

1 hour

1

Was your guess correct?



yes



no



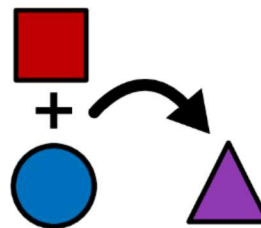


## Step 5: Find the Conclusion

---

### Explanation:

- Why do the pennies begin to turn a green-blue color? A chemical reaction occurs! A chemical reaction happens when two materials make something new. A chemical can change how something looks.
- First, you put pennies in a bowl with vinegar and salt. Pennies have a copper coating on them. The acid in the vinegar reacts with the chlorine in the salt. This starts to break up the copper coating on the pennies. Then, you put the pennies on a paper towel. The copper from the pennies mixes with the oxygen in the air. This is a new material called malachite. The malachite is a green-blue color. This is the same chemical reaction that caused the Statue of Liberty to turn green-blue color.



### Extension:

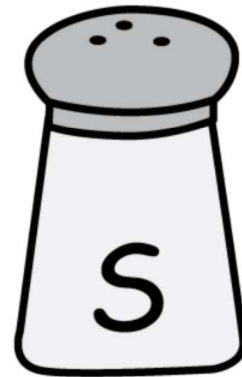
- To clean the pennies, use the same vinegar and salt mixture. But this time, rinse the pennies after taking them out of the mixture. Explain that rinsing with water helps to wash away the malachite that has formed on the penny.



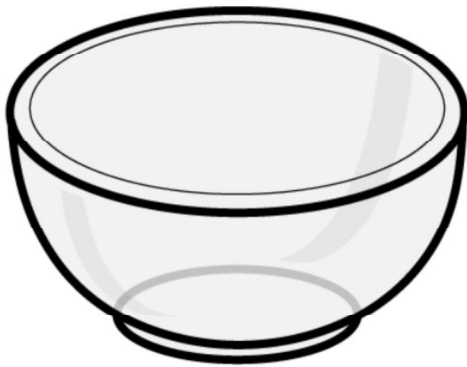
white vinegar



salt



glass bowl



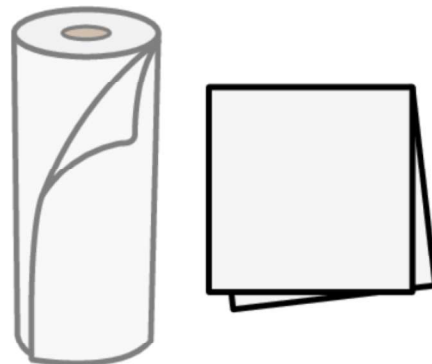
wooden spoon



pennies



paper towel

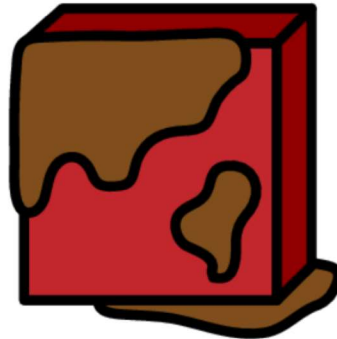




# Changing Pennies



dirty



clean



shiny



smooth

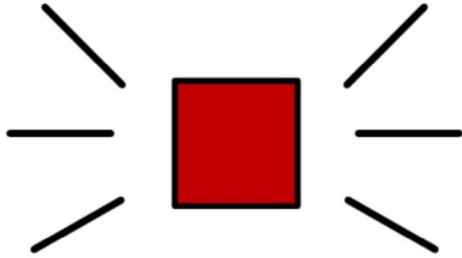


dull

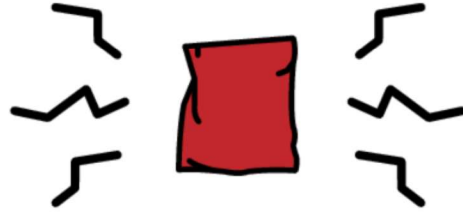




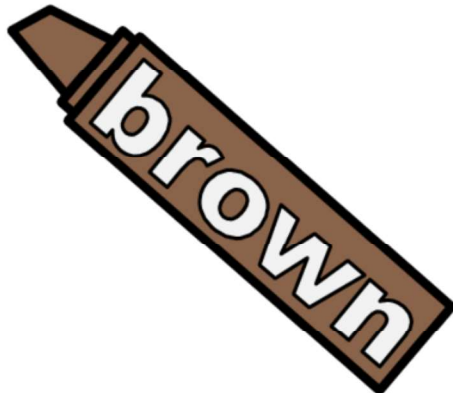
new



old



brown



green



blue

