<section-header><section-header><text>

Warm Up and Activity Cards

www.mheonline.com





Level B

Contents

Warm Up 1	Count Up A Object Land
Warm Up 2	Watch, Listen, and Count Object Land
Warm Up 3	Blastoff A Object Land
Warm Up 4	Count Up BPicture Land
Warm Up 5	Blastoff BPicture Land
Warm Up 6	Tapping and ClappingPicture Land
Warm Up 7	Catch the Teacher Picture Land
Warm Up 8	Name that Numeral Picture Land
Warm Up 9	Teddy Bear Path Line Land
Warm Up 10	Position on the Number LineLine Land
Warm Up 11	Next Number Up Line Land
Warm Up 12	Count Up C Line Land
Warm Up 13	Blastoff C Line Land
Warm Up 14	Line Up Line Land
Warm Up 15	Count Up DSky Land
Warm Up 16	Blastoff DSky Land
Warm Up 17	Count Up E Circle Land
Warm Up 18	Blastoff E Circle Land
Warm Up 19	Dial Differences Circle Land
Warm Up 20	Around the Clock Circle Land
Warm Up 21	That Time Already Circle Land
Warm Up 22	Just a Minute Circle Land
Warm Up 23	One Cent, Five Cents Object Land
Warm Up 24	Paper Money Object Land
Warm Up 25	1 Penny Plus 1 Nickel Object Land

Warm Up 2	6 Adding Paper Money Object Land
Activity 1	Counting Fun Object Land
Activity 2	Take One Away Object Land
Activity 3	Picnic Party Object Land
Activity 4	Plus Pup Object Land
Activity 5	Minus Mouse Object Land
Activity 6	Bank Object Land
Activity 7	Who's Hungry? Object Land
Activity 8	Mixed-Up Dragon Object Land
Activity 9	Mouse in the Cookie Jar Object Land
Activity 10	Let's CompareObject Land
Activity 11	Count and Compare Object Land
Activity 12	2-D Count and Compare Object Land
Activity 13	Small Snack Game Object Land
Activity 14	Show Time Object Land
Activity 15	Hidden Underwater Creatures . Object Land
Activity 16	Clowns' Shopping Trip Object Land
Activity 17	Working Ants Object Land
Activity 18	Dog and BonePicture Land
Activity 19	Concentration Picture Land
Activity 20	Go Fish Picture Land
Activity 21	Bravo!Picture Land
Activity 22	Animal RoundupPicture Land
Activity 23	Sequencing NumbersPicture Land
Activity 24	Connecting the Dots Picture Land

Activity 25	Looking for Space Travelers Picture Land
Activity 26	How Many Marks?Picture Land
Activity 27	Book Making Picture Land
Activity 28	Number Line GameLine Land
Activity 29	Number Line Team Game Line Land
Activity 30	Plus-Minus Game Line Land
Activity 31	High-Low Game Line Land
Activity 32	Super Number Line Game Line Land
Activity 33	Super Plus-Minus Game Line Land
Activity 34	We Like It HotSky Land
Activity 35	Going UpSky Land
Activity 36	Beanbag TossSky Land
Activity 37	Sun and Wind, We Like It HotSky Land
Activity 38	Hurry Up Passengers, Going UpSky Land
Activity 39	Drop the CounterSky Land
Activity 40	City LandscapesSky Land
Activity 41	Skating Party Circle Land
Activity 42	Ice, Be Nice at Our Party Circle Land
Activity 43	Hour after Hour Circle Land
Activity 44	Time Flies Circle Land
Activity 45	More Time or Less Circle Land
Activity 46	In a Minute Circle Land
Activity 47	Two Coins Object Land
Activity 48	Two Bills Object Land
Activity 49	A Nickel and Pennies Object Land
Activity 50	1 Dollar, 5 Dollars Object Land

mheonline.com



Copyright © 2015 McGraw-Hill Education

All rights reserved. No part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written consent of McGraw-Hill Education, including, but not limited to, network storage or transmission, or broadcast for distance learning.

Send all inquiries to: McGraw-Hill Education 8787 Orion Place Columbus, OH 43240

ISBN: 978-0-02-129418-3 MHID: 0-02-129418-6

Printed in the United States of America.

56789DRN 2423222120



Objectives

- Identify a pattern or quantity
- Find a card that matches
- Verify equivalence by counting

Materials

Program Materials

 Small Dot Set Cards, 2 sets and 1 set for Variation 1



- Dot Cube
- Small Number Cards, 1 set for Variation 1 and 2 sets for Variation 2



Concentration

Prepare Ahead

- Shuffle one set of Dot Set Cards, and place the cards in a pile facedown on a flat surface.
- Shuffle the other set of Dot Set Cards, and place the cards in rows faceup on a flat surface.

Introduce the Activity

Tell students that the goal of the activity they are going to play is to find two Dot Set Cards that have the same number of dots.

Play

- Have students roll a Dot Set Cube to see who will go first, and then have them take turns playing.
- During a turn a student will pick one Dot Set Card from the facedown pile and will try to find its match in the faceup rows of Dot Set Cards. When the student believes he or she has made a match, the student should pick up the Number Card that matches his or her Dot Set Card.
- If the quantities on the two cards are the same, the student will get to keep those two cards.
- If the quantities on the two cards are not the same, the student must keep the Dot Set Card from the pile and try to find its match on the next turn, return the other Dot Set Card to its faceup row, and let the next student attempt a match.
- After all the cards have been matched, have each student count his or her cards. The student with the most cards wins.

NUMBER WORLDS

Copyright © McGraw-Hill Education

Questions to Ask

As students do the activity, ask them to compare the number of dots they have to the number of dots they need and to identify a potential match. Ask questions such as the following:

- Are there too many or too few dots on that card?
- Are there enough dots on that card to match the amount of dots on your card?
- How do you know?
- ► How can you check?

After students have finished this activity, ask questions such as the following:

How would you describe what happens in this activity?

Variation 1: Matching Numeral to Dot Set

- Shuffle the Number Cards, and place them in a pile facedown on a flat surface.
- Shuffle the set of Dot Set Cards, and place the cards in rows faceup on a flat surface.
- Tell students that this activity is like the one they played before, but this time they will use numerals like students do in first grade. Use the procedures for **Concentration.**

Challenge

If students know how numerals and set size correspond, make the game more challenging by placing the cards that are in rows facedown.

Variation 2: Matching Numeral to Numeral

In this variation students use Number Cards instead of Dot Set Cards. Otherwise, the activity procedure is the same as in **Concentration**. As they engage in the activity, ask them questions that will verify that they know the name of the number that matches the numeral.



Objectives

- Identify or compute quantity
- Use numbers to request or find a card that matches
- Verify equivalence by counting

Materials

Program Materials

 Small Dot Set Cards (1–5), 2 sets for each pair of students



- Small Dot Set Cards (1–10), 2 sets for the Challenge
- Dot Cube



 Small Number Cards (1–5), 2 sets for Variation

 Small Number Cards (1–10), 2 sets for the Challenge 1



Go Fish

Introduce the Activity

Explain to students that they will try to find matches when they play **Go Fish** as they did in the **Concentration** games, but this time they will fish for the match from the other player. When they get two Dot Set Cards that are the same, they will get to keep them until the end of the activity.

- Shuffle together two sets of Small Dot Set Cards (1–5) for each pair of students.
- Organize students into pairs. Distribute three Small Dot Set Cards to each student in each pair, and place the remaining cards between them facedown on a flat surface. If any students have a match, have them put the matching cards in their "keep" pile.
- Have students roll a Dot Cube to see who will go first, and then have them take turns.

Play

- During a turn, a student can try to find a match to one Small Dot Set Card in his or her hand by asking the other player for a card with the same number.
- If the player has the requested card, he or she must hand it to the student who requested it, who will put the match in his or her "keep" pile and take another turn.
- If the player does not have the requested card, he or she must say "Go fish," and the other student must pick the top card from the deck.
- If the student picks the requested card, the match should be placed in the "keep" pile, and the student may take another turn. Otherwise, the next player gets a chance to make a match.
- After all the cards have been matched, each student should count his or her cards. The student with the most cards wins.

NUMBER WORLDS

Copyright © McGraw-Hill Education

Questions to Ask

When students have to pick a card or decide if they have the card their partner requested, encourage them to focus on numbers and quantities.

You may choose to carry on a quiet dialogue with the student, or have students answer your questions "in their heads" if they would like to keep their cards secret. If students are not concerned about keeping their cards secret, have them respond aloud. Regardless of the type of dialogue you choose, the questions should be the same. You might ask the following questions:

- How many dots are on the card you picked?
- Are there enough dots on that card to match the amount of dots on any of your cards?
- Are there too many or too few dots on that card to match the card in your hand? How do you know?
- Can you show me how you figured it out?

Challenge

When students are comfortable with the above level of play, repeat the procedure using Small Dot Set Cards (1–10).

Variation: Number Go Fish

Tell students that today they will play **Go Fish** with Number Cards. Organize students into pairs. Shuffle together two sets of Small Number Cards (1–5) for each pair of students. For each pair of students, distribute three Number Cards to each student, and place the remaining cards facedown between them on a flat surface. Use the same procedure and rules as in the Go Fish activity to play the variation.

Challenge

When students are comfortable with the level of play above, repeat the procedure using Small Number Cards (1–10).



Objectives

- Identify numerals or compute quantities
- Compare two quantities or numerals, and identify which is larger
- Verify judgment by counting or by discussion and consensus

Materials

Program Materials

- Small Dot Set Cards (1–10), 2 sets per pair of students
- Small Number Cards (1–10), 2 sets per student for Variation 1
- Dot Cubes, 1 per student for Variation 2



 10 Counters per pair of students for Variations 2 and 3



 Number 1–6 Cubes, 1 per student for Variation 3



• Number 7–12 Cubes, 1 per student for the Challenge

Additional Materials small containers, 1 per student

Bravo!

Play

Tell students that to play **Bravo!** they will have to think fast to get the most cards.

- Organize students into pairs. Give each pair of students two sets of shuffled Small Dot Set Cards, and divide the cards evenly between the two students.
- Explain that both players will take the top Dot Set Cards from their piles and turn them faceup on the table at the same time. The player with the most dots showing will keep both cards.
- Add that when the numbers that are turned up are the same, the first student to notice the match and say "Bravo!" will keep that pair. If "Bravo!" is called incorrectly, the other student will keep both cards.
- After students understand the procedure, have them play until all cards have been turned over. The student with the most cards is the winner.

Questions to Ask

If students do not know or do not agree about which card has more dots, encourage them to count the dots on both cards and to compare the two quantities in the counting sequence. Ask the following questions:

- Who has the biggest number?
- What number do you have?
- How can we figure out which amount of dots is larger?
- How many dots are on each of your cards?
- Do you both agree that you counted correctly?
- Which number is higher when we count up?

Teacher's Note

Encourage both players to count and compare the number of dots. If it seems that one student in a pair is making all the assessments, require students to take turns determining which number is larger. If a partner does not agree with an assessment, he or she can challenge it and can request an explanation. If the explanation is not convincing, the challenger must present his or her own explanation. Game play can continue only when both students agree or when the teacher is called upon to hear both arguments and adjudicate the dispute.

Variation I: Number Bravo!

Organize students into pairs. Give each pair of students two sets of shuffled Small Number Cards, and divide the cards evenly between the two students. Use the procedure for **Bravo!** to play the activity. Ask questions that relate to the Number Cards such as "What is the number on each of your cards?" and "Do both of you agree that you named the numerals correctly?"

Variation 2: Dot Cube Bravo!

Dot Cube Bravo! is played like **Bravo!** except that students compute and compare the quantity of dots rolled on a Dot Cube instead of the quantity on the card they turn over. On each roll, the player with the larger quantity of dots will place one Counter in his or her cup. At the end of the game, the player with the most Counters is the winner.

Variation 3: Number Cube Bravo!

Number Cube Bravo! is played like **Bravo!** except that students identify and compare the numerals they roll on the Number Cubes. On each roll, the player with the larger numeral will place one Counter in his or her cup. At the end of the game, the player with the most Counters is the winner.

Challenge

When students are ready for a Challenge, repeat the procedure using Number 7–12 Cubes.

Land

Objectives

- Identify or compute set size
- Match set size to a quantity of objects in a picture
- Predict how many more are needed to reach a certain amount

Materials

Program Materials

• Dot 0–5 Cube



- Number 1–6 Cube for the Challenge 2
- Animal Spinner
- Picture Land Activity Sheet 2, p. A12, 1 for each student
- Picture Land Activity Sheet 3, p. A13, 1 for each student for the Challenge
- Picture Land Activity Sheet 4, p. A14, 1 for each student for the Challenge

Additional Materials

crayons for each student

Animal Roundup

Introduce the Activity

- Distribute crayons and one Picture Land Activity Sheet 2: Animal Roundup to each student.
- Before starting the game, decide whether the final roll for each animal group needs to be for the exact number of remaining animals or if the number can be one which is more than the exact number of remaining animals.

Play

- Students should take turns spinning the Animal Spinner, rolling the Dot Cube, and marking the number rolled on the line with the animal spun. For example, if the spinner lands on the cow, and the Dot Cube displays 3 dots, then the student should mark 3 cows on his or her Activity Sheet.
- Before a student marks off the animals, ask the student what he or she is going to round up, encouraging the student to answer using both a number and an animal name, such as, "I am going to cross off (or circle) 3 cows."
- Have students take turns until one student wins by "rounding up" all the animals on his or her Activity Sheet.

Questions to Ask

This game offers many opportunities for students to count, to make comparisons between and within animal sets, and to speculate about what they hope to roll and why. Be sure to encourage the students to do these things by asking questions such as the following:

- How many pigs have you rounded up?
- How many more horses do you have left to round up?
- Have you rounded up more cows or more ducks?
- Which student has rounded up the most horses?
- What do you hope to roll or spin next?
- Why do you hope to roll or spin that?



Challenge 1

When students are ready, have them use Picture Land Activity Sheet 3: Animal Corral, and Picture Land Activity Sheet 4: Animal Barnyard. The pictures are increasingly more difficult for students to use for comparisons because the animals are not neatly aligned, and therefore students cannot make visual comparisons as easily as they could in Picture Land Activity Sheet 2: Animal Roundup. Activity Sheets 3 and 4 require students to use numbers rather than lengths to compare the quantities.

Challenge 2

When you think students are ready for an additional challenge, have them round up the animals with a Number Cube instead of a Dot Cube. Remember that it is much more difficult for students to match a quantity to a numeral than to a set size.



e AC

Objectives

- Associate increasing a quantity with moving farther around a dial, and associate decreasing a quantity with moving backward around a dial
- Identify how many there will be if a set is increased or decreased by 1 or 2

Materials

Program Materials

• Skating Party Game Board



 Pawns, 1 for each student



- Skating +1\−1 Cards
- Skating +2\-2 Cards for the Challenge
- 20 Award Cards for Variation



Ice, Be Nice at Our Party

Introduce the Activity

- Tell students that this game is like the **Skating Party**, but in this game sometimes the ice will be smooth to help them skate well, and sometimes it will be bumpy to slow them down.
- Distribute one Pawn to each student. Have students place their Pawns at the Entrance on 0.

Play

- Review with students the game procedure for Skating Party.
- Tell students that after they have rolled the Dot Cube, computed the quantity shown, and moved their Pawn that many spaces around the rink, they will pick one of the skating cards.
- Tell students what each card indicates. A +1 You Skated Well Card means the ice is smooth for good skating, and the student should move his or her Pawn one space around the rink toward the Finish Line at 0. A -1 You Stumbled Card means the ice is bumpy and hard to skate on, and the student must move his or her Pawn one space around the rink back toward the Entrance at 0. A 0 Don't Go Anywhere Card means the ice has not changed, and the Pawn should stay where it is.
- After students understand the procedure, have them roll the Dot Cube to see who goes first and then to take turns until one student makes a complete revolution around the dial and reaches the Finish Line at 0.

Questions to Ask

Remember to ask students questions when they roll the Dot Cube. You might ask questions such as the following:

- How far around the rink are you now?
- What did you just roll?
- ▶ When you travel that distance, how far around the rink will you be?

Encourage students to count the numbered segments on the game board with each question.

After a student picks a card, ask questions such as the following:

- What does the card tell you to do?
- How far around the rink will you be after you do that?
- ► Is that closer to or farther away from the Finish Line?

As students become comfortable with this level of play, make the questions more challenging. Ask students to compare the positions of all the players. You might ask questions such as the following:

- Who is the farthest around the rink?
- Who has traveled the shortest distance around the rink?
- Who has the farthest to go to reach the Finish Line?
- Who is the closest to the Finish Line?

Be sure to follow up your questions by asking students, "How do you know?" and "How did you figure it out?" Encourage students to explain their answers by referring to the number of spaces that a particular player has traveled around the rink, the number on which the Pawn currently sits, and the distance around the rink left to travel.

Challenge

When students are ready, repeat the procedure using the Skating $+2\-2$ Cards.

Variation: Ice, Be Nice at Our Class Party

- Tell students that in today's game they will have a skating party to see who can get around the rink the most times.
- Tell students that the game is played like Skating Party except they will go around the rink more than once. When they reach or pass the Finish Line at 0, they will have made one complete revolution around the dial, and they may take one Award Card.
- When the game is finished, students in each group who can show that they have gone around the rink the most number of times are the winners because they have the most number of Award Cards.
- When all the groups are ready, say, "Everyone start playing, and I'll tell you when the time is up," and have students take turns until you call "Time" at the end of ten to fifteen minutes.
- After you call "Time," have students count their Award Cards to see who in each group collected the most Award Cards. When all the groups have counted and compared their Award Cards, have the winner from each group stand up and say how many times he or she skated around the rink.

Questions to Ask

While the students are counting their Award Cards, ask them questions such as the following to help them figure out who won and why:

- How many times did you go around the rink?
- Who has the most Award Cards?
- Why did that student go around the rink more times than this student did?

Ask students to discuss the different number of revolutions that each group winner traveled. Have students speculate on why the groups may have differed. It should be noted that when students first play this game, they will probably attribute going around the rink more times to "skating faster," rather than to "rolling a lot of high numbers" or "picking mostly You Skated Well cards." Eventually, students will make this transition. For now, it is recommended that you follow up such answers by encouraging the students to observe the game closely. For example, you might say, "Did that student really skate faster? Let's watch the next time we play to see."

Remember to follow up your questions by asking students, "How do you know?" and "How did you figure it out?" Encourage students to explain their answers by referring to the general number of dots that a particular player rolled and moved, such as "a lot of big numbers" or "mostly just one or two dots each turn," and by noting the kind of cards they tended to pick, such as "almost all You Stumbled Cards" or "lots of You Skated Well Cards."

Challenge

When students are ready, repeat the procedure using the Skating $+2\rangle -2$ Cards.

Teacher's Note 😰

Feel free to change the time limit to fit the needs of your class. Make the time limit long enough so that each student will be able to go around the rink a few times but short enough to keep the game exciting.



ACTIVI

Objectives

- Students become acquainted with the base-12 analog clock.
- Students can read hour times on the clock.

Materials

Program Materials

Analog Clocks, 1 per student and teacher



Additional Materials tape

Hour after Hour

Introduce the Activity

- Hold up an Analog Clock and point to the longer hand.
- ► The long hand on this clock is called the minute hand.
- When it moves around the clock, it tells us how many minutes have passed.
- When it is at the top—pointing to the number 12—it means 0 minutes have passed.

Play

- Hand out clocks to each student or each small group.
- Move the minute hand—the longest hand—so it is pointing to the number 12, and make sure it stays there for this whole lesson.
- ► Today we want to focus on reading hour times on the clock.
- Remember, when the minute hand is pointing straight at the number 12, it means 0 minutes have passed.
- Make sure each student has the minute hand set at the correct location.
- If possible, tape the minute hand in place so it does not move.

Continuing Play

- Hold up an Analog Clock and point to the shorter hand.
- The short hand on this clock is called the hour hand.
- When it moves around the clock, it tells us how many hours have passed.
- ▶ When it is pointing at a number, it tells us what hour of the day it is.
- Demonstrate moving the hour hand to the number 1, and ask students to move the hour hand on their clocks to the same position.
- Make sure the minute hand stays pointing straight up.
- ► This clock says 1 o'clock.
- Demonstrate moving the hour hand to the number 2.
- Now I'm going to move the hour hand to 2.
- Who can tell me what time it is now?
- Let several students answer, and then provide the correct time if no one offers it.
- ► This clock says 2 o'clock.

- Now move the hour hand on your clocks so they say 2 o'clock.
- Make sure all students have done this correctly.

Continuing Play

- Demonstrate moving the hour hand to 3, then 4, then 5, and then to random numbers on the dial, omitting 12 and saving 11 for last.
- For each new position, ask: Who can tell me what time it is now?
- After each different hour time is presented and discussed, ask students to set their own clocks to the time demonstrated and named.

Concluding Play

- Now I am not going to show you the hour time on my clock.
- I am going to set my clock down and only tell you what the hour time is.
- When I name a time, I want you to set your clocks to show that time.
- ► Show me 2 o'clock on your clocks.
- Let students share their work by holding up their clocks, and then show them your clock so they can verify their choices.
- Repeat this process for other hour times from 1 to 11 o'clock.



d AC

Objective

Students understand that each movement of the hour hand means that one hour has passed.

Materials

• 6 Counters







Time Flies

Introduce the Activity

- Show students a row of 3 Counters.
- ► Let's count these Counters together.
- Point to each of the 3 Counters in turn, and count along with them saying, "One, two, three."
- Then place another Counter in the row.
- ▶ If I add one more Counter to this set, how many will I have?
- Give students time to answer.
- Place another Counter in the row.
- ▶ If I add one more Counter to these four Counters, how many will I have?
- Give students time to answer.
- What if I add one more Counter to this set of five Counters?
- How many will I have?
- Give students time to answer.
- Hold up the Analog Clock and point to the hour hand.
- The numbers on the clock don't tell us how many Counters we have, but they do tell us how many hours could have gone by.

Play

- Start with the clock showing 12 o'clock.
- Move the hour hand to 3.
- When I move this hour hand to the 3, it means 3 hours have gone by since 12 o'clock.
- Then move the hour hand to 4.
- Who can guess how many hours have gone by when the hour hand is pointing to the 4?
- If students give the answer, "One more hour," accept it.
- Repeat this question when the hour hand is moved to 5, then 6, then 7, and then 8. Encourage multiple students to answer after each move.
- Each time the hour hand moves from one number to the next number, it means that one more hour has gone by.
- Show the clock moving from 4 o'clock to 5 o'clock.
- If the hour hand is on 4 and it moves to 5, it means that 4 plus 1 hours—or 5 hours altogether—have gone by.





Continuing Play

- Now I'm going to give you some tricky questions to think about. I want to see how well you understand this clock.
- Pretend you are taking a long car trip. The clock in your car says 4 o'clock.
- Show 4 o'clock on the clock.
- You ask the driver how long it will be until you arrive at the destination. The driver says, "One more hour." What time will the clock say when you get there?
- Let several students answer, and ask each one how he or she figured it out.
- Repeat the question with different starting times.

Challenge

- This time, when you ask the driver how long until you get there, he or she doesn't say, "One more hour." The driver says, "Two more hours." If the clock in your car says 4 o'clock and the driver says you will be there in 2 hours, what will the clock say when you get there?
- Show 4 o'clock on the clock.
- Let several students answer, and ask selected individuals to explain how he or she figured out the answer.
- Repeat the question with different starting times.



ACTIVIT

Objectives

- Students can associate movement of the hour hand around the clock with the passage of time.
- Students understand smaller movements and greater movements from the same starting point.

Materials

Additional Materials

- chalkboard or IWB
- chalk or markers

Prepare Ahead

Draw an analog clock on the board.

More Time or Less

Play

- The hour hand on a clock starts at 12 and goes all the way around the clock two times every day.
- Demonstrate the movement of the hour hand around the clock.
- For now, we are going to think about only one of these times: from 12 noon—close to lunchtime—until you go to bed.
- Point to your illustrated clock.
- Which is longer: the time that goes by between lunch and going home from school, or the time that goes by between lunch and your bedtime?
- Indicate the passage of the hour hand around the dial for the first span of time. Then draw the second time, which should be about twice as long as the first. Draw a curved line from the starting point at noon to each of the end points.
- Let several students answer the question, and ask them to explain why they think so.
- Point out how it looks like 8 o'clock is a longer time from 12 noon than 3 o'clock.

Continuing Play

- Repeat this question for several more events in the day. Vary between asking which span of time is longer and which is shorter.
- Draw students' attention to the clock readings for the times being compared. Point out that the larger number in each case refers to a longer passage of time and the smaller number refers to a shorter passage of time.

Concluding Play

- Can we use the other numbers on the clock after the 12 to tell whether something is a long time away or a short time away from 12 o'clock?
- If we're starting at 12 o'clock, do larger numbers—like 6, 7, 8, and 9—always mean a longer time? And do smaller numbers—like 1, 2, and 3—always mean a shorter time?
- Give students time to explain why the answer is, "Yes."
- If time permits, ask students whether larger numbers in any context, such as counting objects, or dots on a die, or spaces on a number line, always mean more of something than smaller numbers.

NUMBER WORLDS

• Discuss students' answers and help them formulate the general rule.





ACTIVITY

Objective

Students understand that an hour is a much longer period of time than a minute.

Materials

- chalkboard or IWB
- chalk or markers

In a Minute

Play

- Let's think of all the things we can do in about one minute. I will list your answers to see how many things we can think of.
- Let several students answer, and record their answers on the board.
- Challenge unreasonable answers by asking the class whether they agree with the suggestion. If they do not, ask them to explain why.
- Using one minute, have the students perform one of the listed tasks.
- Let's think of all the things we can do in one hour. Again, I will list your answers to see how many things we can think of.
- Let several students answer, and record the good answers on the board.
- Challenge unreasonable answers as before.
- Conclude by affirming that 1 hour is a lot longer than 1 minute.
- ► There are 60 minutes in 1 hour. That's a lot of minutes.
- Write this expression on the board: 1 hour = 60 minutes.

Continuing Play

- ► Let's see how long one hour actually is.
- When the real clock in our classroom shows the next hour time, with the minute hand pointing straight up and the hour hand pointing to a number, we are going to see how long it takes the hour hand to move to the next number.
- ► This will mean one hour has passed.
- As soon as possible, mark the beginning of an hour time (preferably one that is in the low range of numbers and not close to 11 or 12 o'clock).
- Draw a clock face on the board to remind the class of the start time.

Questions to Ask

- At 15 minute intervals, ask the class the following questions. Let several students answer each time. It may be necessary to tell them to ignore the minute hand when they are examining how far the hour hand has moved.
- ► Has one hour passed yet?
- ► Has the hour hand moved all the way to the next number?
- ► How far has it moved?

Copyright © McGraw-Hill Education