

Lesson 2: Screen-Free Challenge Success Slips

Grade 8 Math

LESSON DESCRIPTION: During the seven day Screen-Free Challenge, students will turn in a slip with a parent signature each day to indicate participation. In the classroom, students will keep a record of participation. At the end of the seven days, students calculate percentages of participation and compare with other classrooms.

Teacher's Note: This lesson is the same in 6th, 7th, and 8th grades. You may want to do a more advanced analysis of the data in 7th and 8th grades. See the suggested options at the end of the lesson.

FOCUS QUESTIONS: What is an example of data and how is it collected? What are ways to keep data organized? How is data analyzed using percentage?

OBJECTIVES: Students will:

- participate in the Screen-Free Challenge week.
- turn in Success Slips.
- analyze data for percent participation.

COMMON CORE STATE STANDARDS

- **MATHEMATICS**
 - * **CCSS.8.SP.8** Investigate patterns of association in bivariate data.

Teacher's Note: Work with your grade level and school colleagues to decide how (when and where) to collect slips. Schools could have a box in each classroom and collect during first hour or homeroom or the math teachers can collect them. All teachers need to encourage students to turn them in. Teachers will also need to show results for each class at the end of the week to determine the winning class. Some schools have prize drawings to encourage participation. Each day, all students with a signed slip turn in the slip after it is recorded. These are placed in one place. You may have one drawing per day for all 6th, 7th, and 8th graders, or one per grade level. At the end of the week, you may put all of the slips together for a grand prize.

LENGTH OF LESSON: The lesson takes place over eight days. On day one, it will take ten minutes to hand out the parent letter and the success slips and explain the procedures. On days two through seven, it will take ten minutes to collect and tally the participation. On day eight, it will take twenty minutes to calculate the percent participation and longer to do a more thorough analysis if that is your choice in 7th and 8th grade.

MATERIALS NEEDED:

- Parent letter – one per student
- 7 day Screen-Free Success Slips – one sheet per student

- 7 day Screen-Free Participation Chart – one per teacher per class; an overhead of this chart is optional. If you decide to have teams of five compile data and compete with other teams, you will need a chart for each team.
- Copies of blank circle graphs or graph paper (depending on which graph you choose)
- Protractors and straight edges
- Copies of data sheet after seven days, one per group of two-three students.

VOCABULARY:

data	percent	percent	participation
collect	organize	analyze data	

INVOLVING FAMILIES/COMMUNITIES: Families will help students keep track of Success Slips and turn them in. Families will be encouraged to develop alternative activities for the 7 day Screen-Free Challenge.

PROCEDURES

Activity 1: Students will discuss participation in the seven day Screen-Free Challenge.

1. **Anticipatory Set:** By now, students should be aware of the Screen-Free Challenge through work in other classes and participation in previous years. Discuss participation and ask: What data could we collect during the Screen-Free Challenge week? What could we do with that data?
2. Tell students that the Screen-Free Challenge week starts tomorrow. Hand out parent letters and success slips. Give students time to enter the dates on each of the seven Success Slips, as well as their name.
3. If you want to divide the class into teams of 5 - 6 students to compete with each other, do so now. (After having done this activity in 6th grade, this new level of data collection is good for 7th and 8th grade students.) Have the teams come up with names and fill in the Success Slips accordingly, or just fill them in with class information.

Activity 2: Students will collect and organize data as they participate in the Screen-Free Challenge week.

Teacher's Note: Students are collecting, organizing, and analyzing raw data. The more they are involved in the steps, the more they learn about research and statistics.

1. Each day, use ten minutes at the beginning of the class period to collect and tally the slips with a check mark on the 7 Day Class Participation Chart. You may do this for the whole class, or have teams collect the data on their own sheet.
2. If you are having prize drawings, make certain that all of the slips are collected and turned in to the daily drawing area by the end of the day, to be ready for the next day's drawing.
3. Each day, discuss the participation and look for patterns in the data. Encourage the students to participate, and reiterate the purpose of turning off screens.

Activity 3: Students will analyze the data.

Teacher's Note: You may have students work alone or in small groups to create circle graphs or a bar graph for the data. Use the data each day to encourage participation or wait until the end and do all analysis at once. You may also have teams within your class compile data and compete.

1. After seven days of data collection, have students calculate the percent participation as follows:

Step 1: Count check marks on the 7 Day Class Participation Chart

Step 2: Multiply 7 x number of students in class to get the total check marks possible.

Step 3: Divide Step 1 answer by Step 2 answer and multiply by 100 for percentage of participation

2. Compile results from all participating classes to determine the winning class.
3. Discuss: Why did we use percentages to compare participation in different classes rather than straight totals?

OPTIONS:

Teachers in 7th and 8th grades may want to do additional analyses. Here are some suggestions:

- Calculate and graph percent participation each day, then average the daily percentages. See if that number matches the method in Step 4. (Students may not know this.)
- Divide your class into teams and have each team track participation. Make a large class graph that compares daily and/or cumulative participation for each team. Compare percent participation of teams.
- Have students create an Excel spreadsheet to record and analyze the data.
- Each student creates a graph of the data. Use the rubric provided to highlight quality.
- Have students write about the analyzed data for the school or city newspaper.

Dear Parents,

Your child will be participating in the annual *Take the Challenge* * *Take Charge* Media Awareness and Screen-Free Challenge Program. Developed by local teachers and the Delta-Schoolcraft Intermediate School District, this program includes lessons in science, English, social studies, and mathematics that help students understand the issues around spending a lot of time watching TV and using screens. The goal is to help children spend less time in front of screens, resulting in healthier lifestyles through education.

TV is everywhere! It is difficult to get away from television. In the U.S., 99% of homes have at least one TV set, and two-thirds have three or more sets. Research shows that:

- Students who watch less TV get better grades in school. Students learn to read and write better when they watch less TV.
- Children who watch a lot of TV spend less time with other people so they may not learn important social skills.
- Watching violent television shows and movies and playing violent video games makes children more aggressive and teaches them that violence is a good way to solve problems.
- Spending too much time watching TV and playing video games can make kids less fit and more overweight.
- Spending too much time watching TV and playing video games takes away from other activities such as homework, playing outdoors, or spending time with the family.

To emphasize these facts, the *Take the Challenge, Take Charge* curriculum has a different theme at each grade level, as follows:

- 6th grade – Improving nutrition by avoiding snacks, and spending more time in physical activity
- 7th grade – Using time away from screens to connect with the natural world, which has beneficial impacts such as stress relief and greater physical activity.
- 8th grade – Media violence has negative impacts on children’s behavior than can be reduced if screen time is reduced.

Real quotes from parents whose children participated in this program:

“The turn off encouraged my child to find other things to do. I’m glad she’s going outside more.”

“We really enjoyed it. Our entire family got interested in other things and each other.”

“One of the best experiences my family has ever had. I realized how much I used to snack constantly while watching TV in the kitchen.”

Sincerely,

Middle School Teachers

7 DAY SCREEN-FREE CHALLENGE - SUCCESS SLIPS

(Cut and separate individual daily Success Slips along dotted lines. Turn in one each day.)

SUCCESS SLIP - Day One

I met the challenge and eliminated screens (television, computer, video games) _____.
 (date)

Student Name: _____ Team/Class: _____

Parent Signature: _____

SUCCESS SLIP - Day Two

I met the challenge and eliminated screens (television, computer, video games) _____.
 (date)

Student Name: _____ Team/Class: _____

Parent Signature: _____

SUCCESS SLIP - Day Three

I met the challenge and eliminated screens (television, computer, video games) _____.
 (date)

Student Name: _____ Team/Class: _____

Parent Signature: _____

SUCCESS SLIP - Day Four

I met the challenge and eliminated screens (television, computer, video games) _____.
 (date)

Student Name: _____ Team/Class: _____

Parent Signature: _____

SUCCESS SLIP - Day Five

I met the challenge and eliminated screens (television, computer, video games) _____.
 (date)

Student Name: _____ Team/Class: _____

Parent Signature: _____

SUCCESS SLIP - Day Six

I met the challenge and eliminated screens (television, computer, video games) _____.
 (date)

Student Name: _____ Team/Class: _____

Parent Signature: _____

SUCCESS SLIP - Day Seven

I met the challenge and eliminated screens (television, computer, video games) _____.
 (date)

Student Name: _____ Team/Class: _____

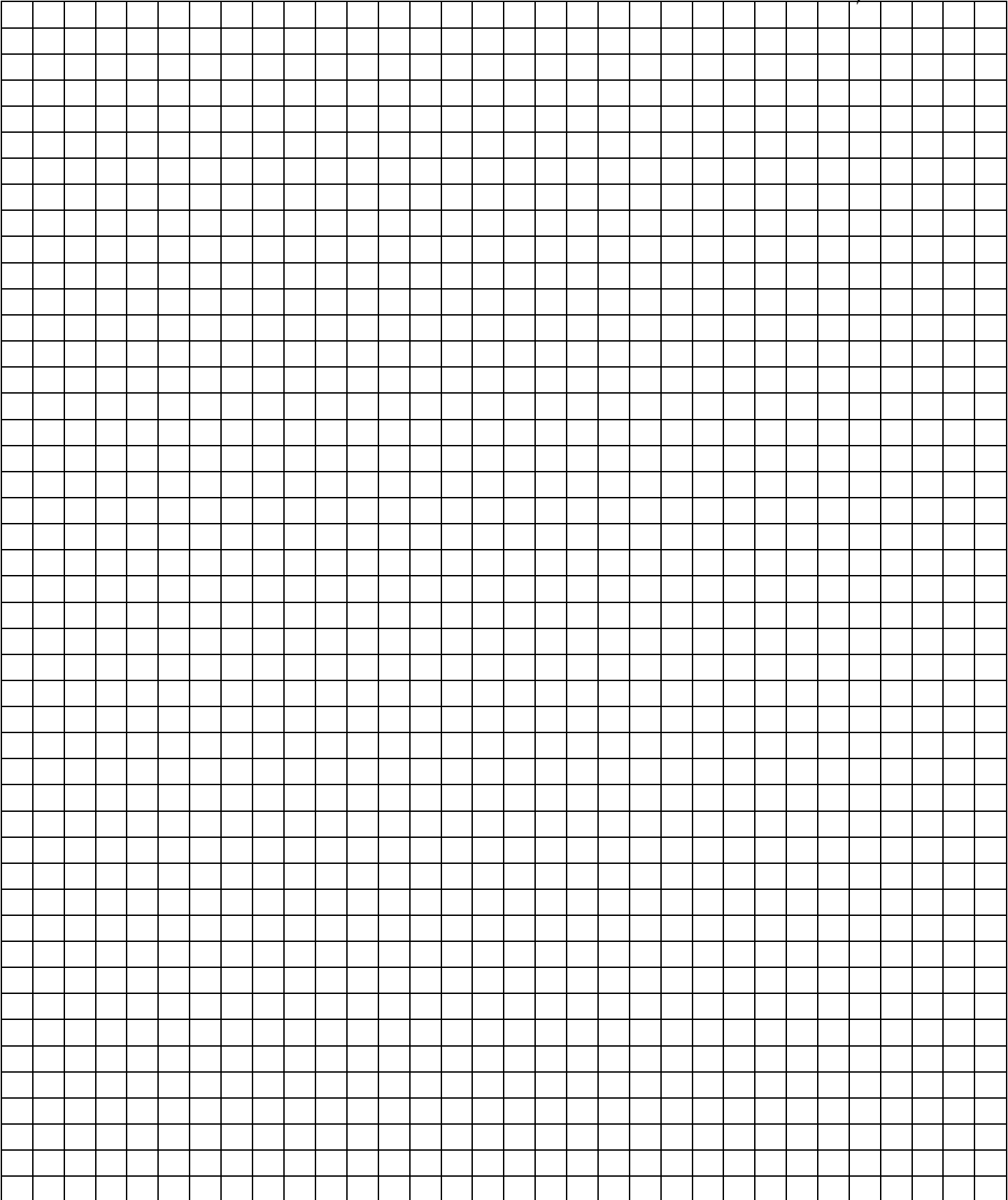
Parent Signature: _____



7 DAY CLASS PARTICIPATION CHART

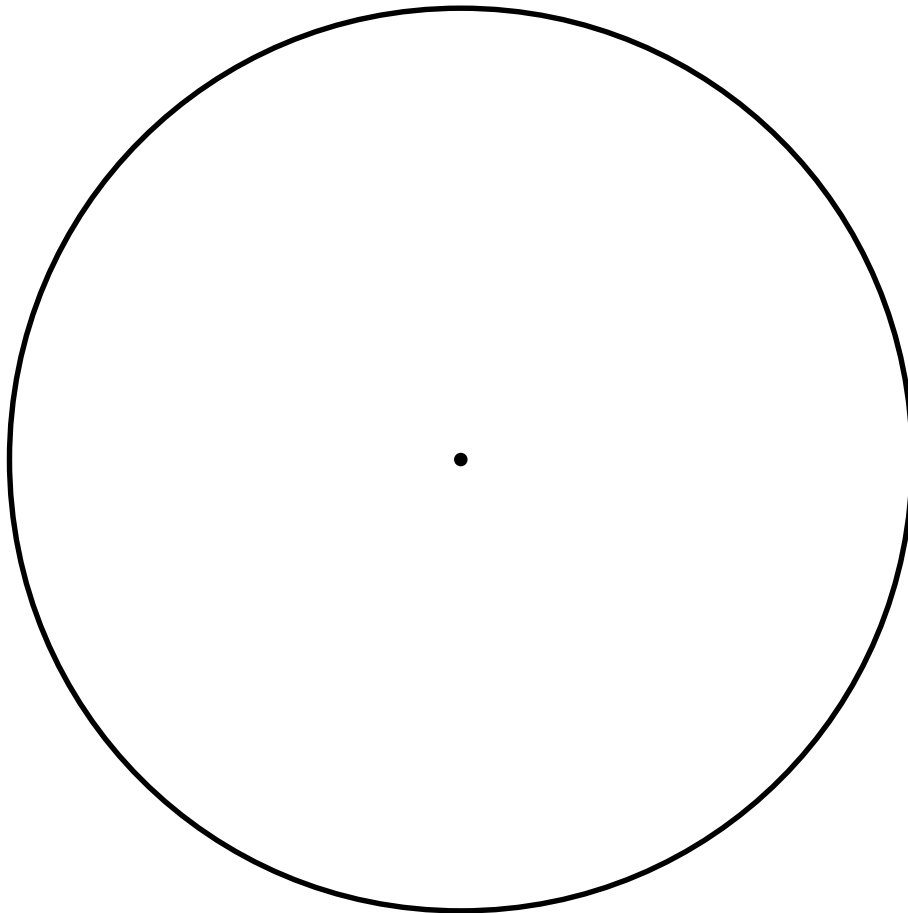
Teacher: _____ Period: _____ Team/Class: _____

Student Name:	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
21.							
22.							
23.							
24.							
25.							
26.							
27.							
28.							
29.							
30.							
Total Number Successful Each Day:							



SCREEN-FREE CHALLENGE PARTICIPATION

Teacher: _____ Class: _____

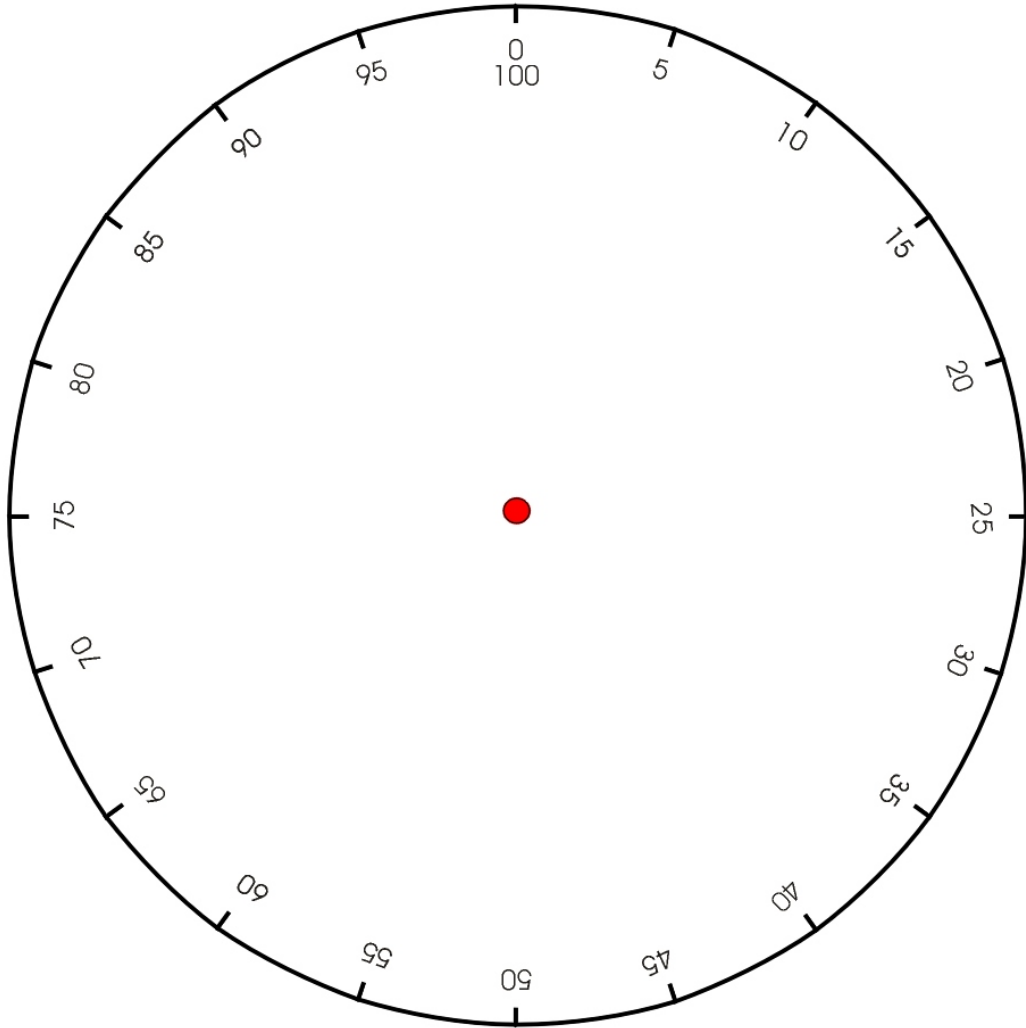


Percent Participation

$$\frac{\text{checkmarks}}{\text{Total possible checkmarks}} \times 100 = \text{_____}\%$$

SCREEN-FREE CHALLENGE PARTICIPATION

Teacher: _____ Class: _____



Percent Participation

$$\frac{\text{_____ checkmarks}}{\text{Total possible checkmarks}} \times 100 = \text{_____ \%}$$

Circle Graph Rubric

Element	Possible Points	Earned Assessment	
		Self	Teacher
Title The title is bold, top and centered, and briefly states what the graph is about.			
Accuracy The graph shows the data accurately and completely.			
Wedge Labels Each wedge of the circle must be labeled with the portion it represents.			
Lines and Printing Lines and printing are clear and dark. If there is more than one line, the lines are different and there is a key. The lines do not rely on color. The graph would photocopy well.			
Mechanics (C-U-P-S) There are no errors in capitalization, usage, punctuation, or spelling.			
Layout and Design The overall organization, design, use of pattern, neatness, and use of space help to make the graph easy to understand.			