



School District of Indian River County
African American Achievement Plan 2020 -2021
Assurances of Implementation of Action Steps



In August 2020, the School District of Indian River County initiated the implementation of the 2020-2021 African American Achievement Plan. To review and ensure compliance with progress of action steps associated with the African American Achievement Plan, the District provides quarterly updates related to action steps accomplished and quarterly outcomes. Following the first quarter of implementation of the African American Achievement Plan, it became clear that increased time and effort should be invested in action step implementation in comparison with compliance activities. As such, the system associated with submitting evidence of the implementation of action steps was analyzed and revised to maximize the allocation of human capital and resources towards supporting students and staff in eliminating the achievement gap.

The attached documentation provides school level evidence of progress towards accomplishing action steps incorporated into the African American Achievement Plan. Documentation requirements have been designed to honor the full intent of the developed African American Achievement Plan while optimizing the efficiency and effectiveness of outlined actionable steps.

To support ongoing accountability of action step implementation, documentation, and progress the following assurances have been verified by the principal of each school:

- Action steps included within the 2020-2021 African American Achievement Plan have been implemented with consistency and purpose to eliminate the achievement gap.
- Progress related to action steps has been monitored at designated intervals (e.g., monthly, quarterly) outlined in the African American Achievement Plan.
- Data reviews have been conducted to identify areas of strength and concern and disaggregated data will be provided upon request.
- Progress related to the elimination of the achievement gap has been monitored in an ongoing way and needed modifications have been made as identified.

These assurances have been reviewed and verified on: 5/27/2021 E. R. (initials)

Quarterly Reflection

(Please summarize any reflections based upon action step implementation for the quarter. What are areas of progress or opportunities for growth? What are next steps based upon work accomplished?)

In previous quarters, observational data including impact reviews indicated a significant increase in standards-based instruction, standards-aligned tasks, student-centered work, and positive Climate and culture. There was evidence of slight increases differentiation, but a continued need for improvements in this area was needed. In addition, effective monitoring for engagement rather than compliance had become an area of concern.

In the final quarter, there was a focus on developing teachers' skillset with monitoring. Part of the focus to help guide teachers in this direction has included and will continue to include formative assessment and feedback PD with instructional coaches as well as implementation of professional development through coaching cycles.

Most current predictions based on most recent data indicates an 11% gain in ELA Bottom Quartile. We can attribute this to a large focus on bottom quartile interventions pushed by admin and coaches with a focus on our ESSA groups and student data chats with both teachers and students. Math bottom quartile; however, is expected to drop by 9%. We may be able to attribute this to lengthy teacher absences as well as difficult learning gaps expanded due to Covid-19. Similarly, ELA achievement is predicted to remain stagnant while Math achievement is expected to drop by 5%.

During the first semester, Unit assessment and iReady data indicated growth in all areas. According to Unit assessment data, we were predicted to reach or exceed our goals in all School grade categories. However, we anticipated changes in these numbers as we have welcomed large amounts of virtual or transitional students back to brick and mortar classrooms for the second semester and even late into the 4th quarter. These changes did, in fact, appear to be the case.

Yet, another contributor to this is the number of students with no data to report at this time.

Use of the SIG grant for targeted support with Outreach, Progress Monitoring/Interventions, Professional Development, Saturday boot camps, and tutoring is hopefully a factor in final increases in state testing.



SDIRC School Data Chats & Impact Reviews – Secondary

Component: African American Achievement Plan 2020 - 2021



Date of Impact Review: 2/22/2021

School: Oslo Middle

Action Steps: 1.5, 1.15, 1.17, 1.18, 1.22, 1.33, 2.6

Action Step 1.5

Date of Quarterly Review of School Improvement Plan	04/21/2021
Does the School Improvement Plan Continue to Address the Achievement Gap for African American Students?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, what modifications will be made to address the achievement gap?
Summary of Action Steps / Plan based upon District Impact Review (based upon District & School Level Reviews)	<p>Review 1: <u>Strengths:</u></p> <ul style="list-style-type: none"> • Attention to standards and essential questions in classrooms • Culture and Climate is very positive • Teachers are trying new initiatives • Students feel safe to ask questions and work on difficult problems <p><u>Areas for improvement:</u></p> <ul style="list-style-type: none"> • Pacing needs to be more timely • Lack of differentiation • A need for monitoring for understanding rather than just compliance <p>Review 2: <u>Strengths-</u></p> <ul style="list-style-type: none"> • SBI has improved and evident in classes • Engagement is more evident than the last impact review • Positive climate and culture and good relationships • Students were doing the work • Teacher centered activities • Students were very attentive and moving toward engagement <p>Academic talk and vocabulary has increased</p> <p><u>Areas for improvement-</u></p> <ul style="list-style-type: none"> • Getting students from strategic compliance to engagement • School wide strategies for monitoring & differentiation <p>Review 3 - Action Steps based on all 3 impact reviews:</p> <ul style="list-style-type: none"> • Celebrate Progress with small group instruction, engagement, and differentiation • Continue Professional Development for Differentiation • Implement Professional Development for Monitoring • Incorporate Monitoring and Differentiation into coaching cycles <p>Facilitate Data chats to focus on Bottom Quartile needs and interventions</p>

Action Step 1.11

Methodology and documentation of equitable participation in extracurricular activities	All students were given equal opportunity for all extracurricular activities. After school transportation was provided in order to
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	ensure all students interested had equal access. See attachment for lists.
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*Attach extracurricular activity rosters (sports, clubs, etc.) by race/ethnicity.

Action Step 1.14

Summary of meetings with the African American Student Council to identify opportunities for improvement and monitor progress of African American students, collected feedback from the meetings and any modifications to the school-site plan	Looking forward to next school year, African American Student council is looking to bring sponsors together to clarify the expectations for the Council and allow time to network and plan before school starts. In addition, monthly opportunities for sponsors to join meetings and quarterly for our officers of the Councils to discuss progress, ideas for interventions and programs. Agendas attached
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*Attach meeting agendas, rosters, etc.

Action Step 1.15

Date(s) of Review of Standards in Need of Re-Teaching for African American Students Based on Unit Assessments	Each Friday at 8:15AM with admin and coaches. Every second and fourth Monday of each month in department meetings as a group. Individual Data Chats with Administration: 1/11/21; 1/12/21
Standards Identified in Need of Re-Teaching	ELA: 6th Grade: RI.1.3, RI.1.2, RI/RL 2.5, RL.1.1, RL.2.6 7th Grade: RI.1.3, RI.2.6, RI.3.8, RI.3.9, RL.2.4, RL.2.5 8th Grade: RI.2.8, RI.1.2, RL.2.6, RL.3.7, RL.3.9 Science: Nature of Science Standards all 3 grade levels Civics: SS.7.C.3.3; SS.7.C.3.5 Algebra: MAFS.912.A-CED.1.3, MAFS.912.A-REI.3.6 6th grade math: MAFS.6.NS.2.3, MAFS.6.NS.3.7a, MAFS.6.EE.2.8 7th Grade math: MAFS.7.RP.1.2.b, MAFS.7.RP.1.3, MAFS.7.RP.1.1
Recommended Strategies	Scaffolding/Chunking Differentiation Student Data Chats Tutoring Increased Engagement strategies Utilize small group/differentiated instruction Foundational Fridays in ELA classes to reteach specific standards/skill Use the Tools for Scaffolding Instruction in I-ready I-ready Toolbox lessons for remediation

Action Step 1.17

List of After School / Extended Learning Opportunities Offered to Improve Graduation Rates	<ul style="list-style-type: none"> • ELL after school tutoring • Math after school tutoring in-person & virtual • ELA after school tutoring in person & virtual • 7th grade Civics after school tutoring • Science after school tutoring • Breakfast club support before first block for identified students • BQ and PBIS identified students pulled from electives for ELA/Math support • Home visits for virtual students failing • Saturday writing boot camp – March 13 • Saturday Algebra boot camp – April 10 • Saturday Science boot camps – April 17 & April 24 • Saturday Civics boot camps – April 17 & April 24
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Action Step 1.18

	White		Black	
	#	%	#	%
Course Recovery – Behind in Credits	63	14.4	53	17.2
Course Recovery – Student Participating in Course Recovery	63	14.4	53	17.2
Course Recovery – Eligible Students Enrolled	63	14.4	53	17.2

Action Step 1.22

Date of Reviews of School Counselor Contacts with African American Students Off-Track for Graduation	At minimum, twice per week with 8 th grade counselor. Most recently spoke with all students off track on 5/27/2020
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Action Step 1.33

Summary of summer programs developed to support and prepare African American secondary students for advanced courses	Oslo Admin and guidance has been encouraging students to attend district-wide summer school offerings. Summer reading and Math challenge initiatives pushed out by Literacy and Math Coach through ELA, Reading, and Math Courses during the last week of school.			
Number and percent of students enrolled in advanced coursework summer programs	White		Black	
	#	%	#	%

Action Step 2.6

Date(s) of Problem-Solving Meeting(s) to Incorporate/Review Culturally Responsive Practices into Tier 1 Instruction & Supports	September 23 rd ; October 8 th ; October 22 nd ; November 5 th ; November 18 th ; December 10 th ; January 14 th ; January 27 th ; February 17 th ; March 17 th ; April 21 st
Summary of Action Steps to Incorporate Culturally Responsive Practices into the Tier 1 Framework	<ul style="list-style-type: none"> CRT Book study: Culturally Responsive Teaching and the Brain, Zaretta Hammond Teacher PDs by chapter- designed & presented by department In-class support and coaching from Multicultural Coordinator Restorative Justice Professional Development for all teachers and implemented through success coach and PBiS PBiS classroom support with targeted students Check-in, check-out & Social skills with identified students



SDIRC School DataCom – Secondary
Component: African American Achievement Plan 2020 - 2021



Date of DataCom: 3/12/2021

School: Oslo Middle

Action Steps: 1.12, 1.16, 1.19, 1.20, 1.22, 1.23, 1.31, 1.37, 1.38

Action Steps 1.12, 1.16, 1.19, 1.31, & 1.37

Date(s) of School Level Review(s) of Performance, Progress, & Regression of African American Students	10/21/20; 11/18/20; 12/16/20; 1/04/21, 02/24/21, 03/17/21, 4/21/21
District Review Conducted of Academic Performance, Progress (e.g., course failures, concordant scores, GPA, advanced coursework) & Regression of African American Students	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Summary of Action Steps / Plan based upon Review of Performance, Progress, & Regression of African American Students (based upon District & School Level Reviews)	<ul style="list-style-type: none"> • BQ students moved to transitional or Brick & Mortar • Department BQ intervention plans • Support with make-up work for struggling students • Tutoring: Afterschool, online appts, ESE Breakfast club, Saturday Boot Camps • Department-led data chats • Standards-based, rigorous instruction • Phone calls, messages, and Home visits to virtual students • BQ students to be pulled 40min/week during electives • Increased engagement, monitoring, differentiation, and feedback

Action Step 1.38

	Sixth/Ninth		Seventh/Tenth		Eighth/Eleventh	
	#	%	#	%	#	%
Regression of African American Students in English Language Arts (comparing baseline unit assessment (UA) to Most Recent UA)	9	0.15	8	0.11	11	0.13

Action Steps 1.20, 1.22 & 1.23

Date(s) of School Level Review of Student Progress Towards Graduation	10/21/20; 11/18/20; 12/16/20; 1/04/21, 02/24/21, 03/17/21, 4/21/21
District Review Conducted of Graduation Rate and Action Steps Implemented to improve graduation rate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No



SDIRC Quarterly Update Additional Action Steps – Secondary Component: African American Achievement Plan 2020 - 2021



Last Date of Review: Click or tap to enter a date.

School: Choose an item.

Action Steps: 1.3, 1.6, 1.11, 1.14, 1.28, 1.29, 1.30, 1.33, 2.5, 2.9, 4.5, 4.6, 4.30, 4.31

Action Step 1.3

Date(s) of Walk-Through to Observe Implementation of African American History Teachings	11/3/20, 11/17/20, 11/19/20, 12/7/20, 12/15/20, 1/06/21, 1/08/21, 2/08/21, 3/3/21
Summary of Observation(s)	<p>CIVICS: 14th amendment which is a post civil war citizenship amendment granting all people citizenship if they were born on American soil specifically granting the rights of citizenship to African American people, 13, 15th 19th, 24th and 26th amendments which deal either directly or indirectly with African American history. 13th Ended slavery 15th granted African American men the right to vote 19th all women including African Americans Court cases of Dread Scott, Plessy vs Ferguson and Brown V Board, Dread Scott about denying citizenship to AA which was overturned by the 14th amendment, Plessy saying segregation was acceptable, and Brown overturning Plessy The civil rights movement and Jim Crow laws The election of Kamala Harris and also Barak Obama Multiple discussion of systemic discrimination</p> <p>US History: Abolitionist Movement Sojourner Truth Speech and impact Impact of Fredrick Douglas on Abolitionist Movement Underground Railroad and important figures in this movement including Williams Stills</p> <p>ELA: Black History Month Living Museums – students selected past or present African American pioneers in their fields and researched, wrote essays, and presented to peers and staff in a “Living Museum” exhibit</p>

Action Step 1.6

Extended Learning Opportunities Offered (list all offerings during the 20-21 academic year).	<ul style="list-style-type: none"> • Math after school tutoring in-person & virtual • ELA after school tutoring in person & virtual • 7th grade Civics after school tutoring • Science after school tutoring • Breakfast club support before first block for identified students • BQ and PBIS identified students pulled from electives for ELA/Math support • Home visits for virtual students failing • Saturday writing boot camp – March 13 • Saturday Algebra boot camp – April 10 • Saturday Science boot camps – April 17 & April 24 • Saturday Civics boot camps – April 17 & April 24
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	White	Hispanic	Black	Two or More	All Other Race/Ethnicities
Total Number Breakdown of Participants by Race/Ethnicity	ELA-7 Math – 36 SS – 18 Sci - 10	ELA-3 Math-14 SS – 7 Sci - 4	ELA-11 Math-19 SS – 13 Sci - 7	0	ELA-0 Math-3 SS – 2 Sci - 1
Total Percentage Breakdown of Participants by Race/Ethnicity	46%	18%	32%	0%	.03%

*Attach evidence of a parent work or extended learning activity for students.

Action Step 1.11

Date of Student Committee Meeting	04/06/21
Summary of student feedback related to diversify opportunities to participate in extracurricular activities	A culminating meeting of the Superintendent's Student Advisory Council was held in April 2021 to share with students how the feedback that they had provided throughout the year on various topics (e.g., college planning, equitable access to activities) had been used or is planned on being used to make improvements in the school experiences of students. The Superintendent's Cabinet members were present at the session not only to share the work of their individual offices in this regard, but also to respond to questions students had. Also during this session, students participating on this year's council were recognized for their contributions to this body of work.

Action Step 1.14

Date(s) of African American Achievement Student Council Meetings	1/14/21, 2/11/21, 3/21/21, 4/21/21, 5/21/21
Summary of Needs Assessment Feedback and Modifications for Incorporation into Action Planning	<p>1 - Helping myself (gaining more self-confidence, feeling better about myself, expressing my feelings and thoughts). This area is being addressed through the Life Skills Curriculum, identified students are also meeting with Mrs. Spivey, Ms. Reese, and Mr. Monte' either in small groups or individually as needed.</p> <p>2. - Improving study skills. Students have been invited to participate in after school tutoring sessions, Ms. Reese pulls individuals as needed either by student request, teacher referral, or observation of their performance as she conducts focus check ins. Mr. Monte and Mrs. Spivey have a "Breakfast Club" of approx. 35 identified students and are available to work with them daily. They also have individual mentoring sessions weekly with a smaller group of about 10 students.</p> <p>3 - Planning my options after high school. All of scenarios listed in (2) touch on making decisions now that will have a positive impact on the future, but Guidance Counselors will focus more on this with 8th graders after testing season.</p>

Action Steps 1.28 & 1.29

	Black Students (#)	Black Students (% of Total Population of Black Students)
Students Participating in On-Site College Readiness Testing	NA	NA

*Attach schedule of events for workshops, website, parent conferences, SAT and ACT information.

*Attach evidence of information provided at one of the scheduled events.

Action Step 1.30

Recognition Ceremonies (list all ceremonies during the 20-21 academic year).	iReady gains for ice cream
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	White	Hispanic	Black	Two or More	All Other Race/Ethnicities
Total Number Breakdown of Participants by Race/Ethnicity	238	144	134	33	5
Total Percentage Breakdown of Participants by Race/Ethnicity	43	26	24	.06	.01

Action Step 1.36

	White	Hispanic	Black	Two or More	All Other Race/Ethnicities
Total Number of Students in Advanced Coursework by Race/Ethnicity	191	84	80	5	13
Total Percentage Breakdown of Students in Advanced Coursework by Race/Ethnicity	21	9	9	0.56	1.4
List of Supports Provided to Students Enrolled in Advanced Coursework: *Differentiation according to student needs and/or learning styles *Project-Based learning opportunities *L.A.U.N.C.H. and Design Thinking instruction and projects *In-class peer mentorship opportunities					

Action Step 2.5

Timeframe of Reported Out-of-School Suspensions	OSS assignments to date (Aug 2020-May 2021): 22
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Select one:

- ☐ No out-of-school suspensions were assigned during this time frame.
- ☒ All out-of-school suspensions were pre-approved by a principal supervisor.

Action Step 2.9

	Number of Mentors	Number of Mentees
Number of Student Participating in Peer Mentorship Program	4	3

Action Steps 4.5 & 4.6

Number of African American students applying for the FFEA Scholarship Program	NA
Number of African American students taking part in the IRSC Teacher Academy	NA

Action Step 4.30

Number of Applications for Education (i.e., teaching) Scholarships Completed by African American Students.	NA
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Action Step 4.31

	Number Identified	Percentage of Identified Earning Teaching Certification
Support Staff identified to Transition to Teaching	1	1

AAAP Quarter 4 Action Step 1.11 Extracurricular Activities

*All students were given equal opportunity for all extracurricular activities. After school transportation was provided in order to ensure all students interested had equal access. See attachment for lists.

Book Club

African American- 1

Hispanic- 8

White- 2

“Kids who Code” Club:

Black - 2

Mixed - 2

White - 17

Hispanic – 3

African American Student Council

Black – 8

Hispanic – 3

Asian – 1

Mixed – 4

Yearbook Club

Black – 2

White – 2

Asian – 1

Volleyball:

Black - 9

Mixed - 4

White - 9

Hispanic - 4

Softball:

Black – 5

Hispanic – 2

White – 7

Girls Flag Football

Black – 6

White – 1

Other – 1

Boys Flag Football

Black – 9

White – 1

Hispanic – 1

Baseball:

Black – 2

White – 11

Hispanic – 1



School District of Indian River County

6500 57th Street • Vero Beach, Florida, 32967 • Telephone: 772-564-3000 • Fax: 772-564-3054

MEETING /TRAINING AGENDA FORM

DATE: 3/11/2021

SUBJECT: African American Student Council Meeting – Honoring our commitment to improving ourselves, our school, and our community.

Follow-up from last month's meeting:

- Review Individual Goal Setting Progress
- Service Learning Project Ideas for next school year.

Recurring Agenda Items:

- Learning Environment suggestions
- Opportunities for inclusion in sports and other extracurricular activities
- Improvements for Distance Learning

New Agenda Items:

- FSA/EOC Bootcamp Questions/Needs/Concerns

ATTENDEES:

Marsha Reese- Sponsor

3- 6th graders

6-7th graders

4-8th graders

“Educate and inspire every student to be successful”

Dr. Mara Schiff
District 1

• Jacqueline Rosario
District 2

• Laura Zorc
District 3

• Teri L. Barenborg
District 4

• Tiffany M. Justice
District 5

“Serving ALL students with excellence”
Equal Opportunity Educator and Employer



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MEETING /TRAINING AGENDA FORM

DATE: 4/11/2021

SUBJECT: African American Student Council Meeting – Honoring our commitment to improving ourselves, our school, and our community.

Follow-up from last month's meeting:

- Review Individual Goal Setting Progress
- FSA/EOC Bootcamp Questions/Needs/Concerns

Recurring Agenda Items:

- Learning Environment suggestions
- Opportunities for inclusion in sports and other extracurricular activities
- Improvements for Distance Learning

New Agenda Items:

- FSA/EOC Dates and Sign-Up information
- Budget Review (End of year party?)

ATTENDEES:

Marsha Reese- Sponsor

4- 6th graders

6-7th graders

4-8th graders

"Educate and inspire every student to be successful"

Dr. Mara Schiff
District 1

• Jacqueline Rosario
District 2

• Laura Zorc
District 3

• Teri L. Barenborg
District 4

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MEETING /TRAINING AGENDA FORM

DATE: 5/13/2021

SUBJECT: African American Student Council Meeting – Honoring our commitment to improving ourselves, our school, and our community.

Follow-up from last month's meeting:

- End of year party details

Recurring Agenda Items:

- Learning Environment suggestions
- Opportunities for inclusion in sports and other extracurricular activities
- Improvements for Distance Learning

New Agenda Items:

- Reflections from 2020/2021 school year.
- Ideas for moving forward next year (other than trips and fundraisers) – how can we reach more students on campus? Impact our community? Better ourselves?

ATTENDEES:

Marsha Reese- Sponsor

3- 6th graders

4-7th graders

6-8th graders

“Educate and inspire every student to be successful”

Dr. Mara Schiff
District 1

• Jacqueline Rosario
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District 5

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Directions

- Your goal is to score points by making correct predictions about events.
- Mix the symbol cards and place in a pile facedown.
- Player A rolls the number cube and records the number on the Recording Sheet. Then Player A picks a symbol card.
- Use the number and symbol to write the outcome in the Probability column. For example, if you get a 2 and the symbol $<$, write $P(< 2)$.
- Write the probability of the outcome, for example $P(< 2) = \frac{1}{6}$. Say the probability out loud. For example, "The probability of rolling a number less than 2 is $\frac{1}{6}$."
- Predict "yes" or "no" whether the event will occur on the next roll. Roll once again. Earn 1 point if your prediction is correct. Lose 1 point if it is incorrect.
- Players take turns. The player with the most points at the end of 10 rounds wins.

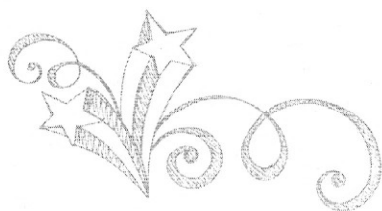
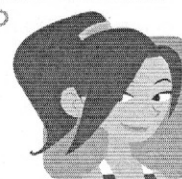
Name: Carrie

It's Probable Recording Sheet

Round	Roll 1	Probability	Prediction	Roll 2	Points
1		$P(< 2) = \frac{1}{6}$	no	6	1
2		$P(\quad) =$			
3		$P(\quad) =$			
4		$P(\quad) =$			



The closer the probability of an event occurring is to 1, the more likely it is to happen. If the probability of an event occurring is closer to 0, it is less likely to happen.



Round	Roll 1	Probability	Prediction	Roll 2	Points
1		$P(\underline{\hspace{1cm}}) =$			
2		$P(\underline{\hspace{1cm}}) =$			
3		$P(\underline{\hspace{1cm}}) =$			
4		$P(\underline{\hspace{1cm}}) =$			
5		$P(\underline{\hspace{1cm}}) =$			
6		$P(\underline{\hspace{1cm}}) =$			
7		$P(\underline{\hspace{1cm}}) =$			
8		$P(\underline{\hspace{1cm}}) =$			
9		$P(\underline{\hspace{1cm}}) =$			
10		$P(\underline{\hspace{1cm}}) =$			



In this unit you learned to:	Lesson
identify random samples.	26
make statistical inferences from random samples.	27
compare data with measures of center and variability.	28, 29
find probabilities of single and compound events.	30, 31, 32, 33
compare theoretical and experimental probabilities.	31, 32

Use these skills to solve problems 1–6.

- 1** Which number best represents the probability that an outcome is unlikely to occur?

A 0 **C** $\frac{1}{2}$
B $\frac{1}{10}$ **D** $\frac{7}{8}$

- 2** A standard number cube is rolled and a coin is tossed. What is the probability of getting tails and an odd number?

A $\frac{1}{6}$ **C** $\frac{1}{3}$
B $\frac{1}{4}$ **D** $\frac{1}{2}$

- 3** Which sampling method or methods will produce a random sample of the students in your school? Select all that apply.

A Select every fifth student who enters the school.
B Choose the students on the boys' and girls' basketball teams.
C Ask for volunteers to take a survey.
D Assign each student a number and then select numbers at random.

- 4** There are 45 students on a field trip. Six students are chosen at random, five different times. The results are given.

2 boys and 4 girls
 1 boy and 5 girls
 2 boys and 4 girls
 1 boy and 5 girls
 3 boys and 3 girls

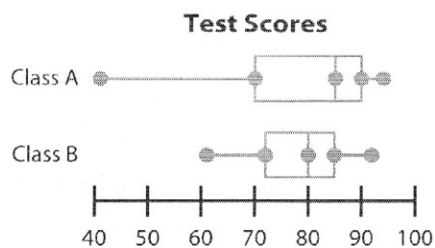
How many boys and girls do you think are on the field trip? Explain your answer.

or every 10 times at bat. Vince ran an experiment in which a computer generated a random number from 00 to 99. He assigned the numbers 00 to 29 to represent a hit.

Part A: Is the experiment valid? Explain.

Part B: After generating 200 random numbers, Vince counted 48 numbers from 00 to 29. Is this batter likely to be a good hitter? Explain.

- 6** The box plots show the results for two different classes on the same test. Select whether each statement is *True* or *False*.



- a. The range for Class B is less than the range for Class A. ☐ True ☐ False
- b. The mean and MAD can be determined from the box plot. ☐ True ☐ False
- c. Class A likely has a higher MAD than Class B. ☐ True ☐ False
- d. The interquartile range for Class B is greater than the interquartile range for Class A. ☐ True ☐ False
- e. The median score for Class B is less than the median score for Class A. ☐ True ☐ False

separate paper.

Each week, Mr. Alvarez picks one student to lead the warm-up session in his gym class. There are 14 girls and 12 boys in the class. Mr. Alvarez writes each student's name on an index card and places the cards in a box. Then he picks a card from the box.

Mr. Alvarez wants to find the probability of selecting a boy and the probability of selecting a girl on the first week of class. Here is what he wants you to do.

- Describe the sample space.
- Find the theoretical probabilities of selecting a girl and of selecting a boy in the first week of class.
- Explain how you found these probabilities.

Mr. Alvarez also wants you to conduct an experiment.

- Use slips of paper and a paper bag.
- Write "G" on 14 slips and "B" on 12 slips to represent the boys and girls in the class.
- Pick a slip of paper from the bag and record the results.
- Put the slip of paper back in the bag, mix the slips, and pick another.
- Continue until you have recorded 50 selections.
- Calculate the experimental probability of picking a girl's name and of picking a boy's name.

Finally, compare the theoretical probabilities with the experimental probabilities. Tell how similar or how different the probabilities are and whether you got results that you expected.

Reflect on Mathematical Practices

After you complete the task, choose one of the following questions to answer.

- 1 Model** What model did you use to record the data for the experiment? Why did you use this model?
- 2 Reason Mathematically** How might you change the simulation to try to get less difference between the experimental and theoretical probabilities? Explain why.

Checklist

Did you ...

- ☐ organize your data for the experiment?
- ☐ check your work?
- ☐ explain your results using mathematical ideas?

experimental probability

sample space

theoretical probability

favorable outcome

uniform

non-uniform

Models Here are some models that you might use to find the solution.

Result	Tally
Boy	
Girl	

$$P(\text{boy}) = \frac{\text{number of times boy was selected}}{\text{total number of selections}}$$

Sentence Starters Here are some sentence starters that might help you explain your work.

The possible outcomes _____

A favorable outcome _____

To find the theoretical probability _____

mean

the average of a data set; the sum of all the values divided by the number of values

median

the middle number in an ordered set of numbers when all the values are listed from least to greatest

mode

the most common number in a set of numbers

occurring

outcome

one of the possible results in a situation or experiment

event

one or more possible outcomes.

experimental probability

the probability of an outcome or event occurring based on the results of an experiment
