Chapter 1

Profiles of Achievement Across Reading, Mathematics, and Science at the Fourth Grade

I a V.S. M
Boston College

Overview

2011

Reading

W e ead e a e , de ca ca e a d d f ca ac
a d de a e bedded ac e ; a e fe e ce e a e a be ee
e , ac , e e , a d fee , a d e e - ba ed ; e e a d
e a e e e a d c a a c e ac a d a f a f e ; e a , a e e
f ca ce fe e a d ac ac a e e ; a d ec e e , e f e
a , a e fea , e (e. ., e a , e, a e). W e ead f a a e ,
, de ca ca e a d d , e e a f a a de e e ac e
ab e; a e fe e ce ab , ca c ec de e a a a d e a ;
e a e e , a a d , a f a e e e e a be ee dea ; a d
e a , a e c e a d e , a e e e a e a e e a a .

Mathematics

S , de ca a e ed e a d , de a d 25 48 ( ) 9 1 4 Tf 0.003 Tc -0.003 T 8 0 0 8 5 6 (a) 4 (d) 0. c -0 MC 3 4 8 16

Reading
W e ead e a e , de ca ca e a d e e e a e c a ed de a . W e ead f a a e , de ca ca e a d e d cee c a ed f a a a e be f e e .

Mathematics
S de a e e ba c a e a ca ed e. S de ca add a d b ac

Pro□les of Achievement Across the International Benchmarks

Countries at the Fourth Grade

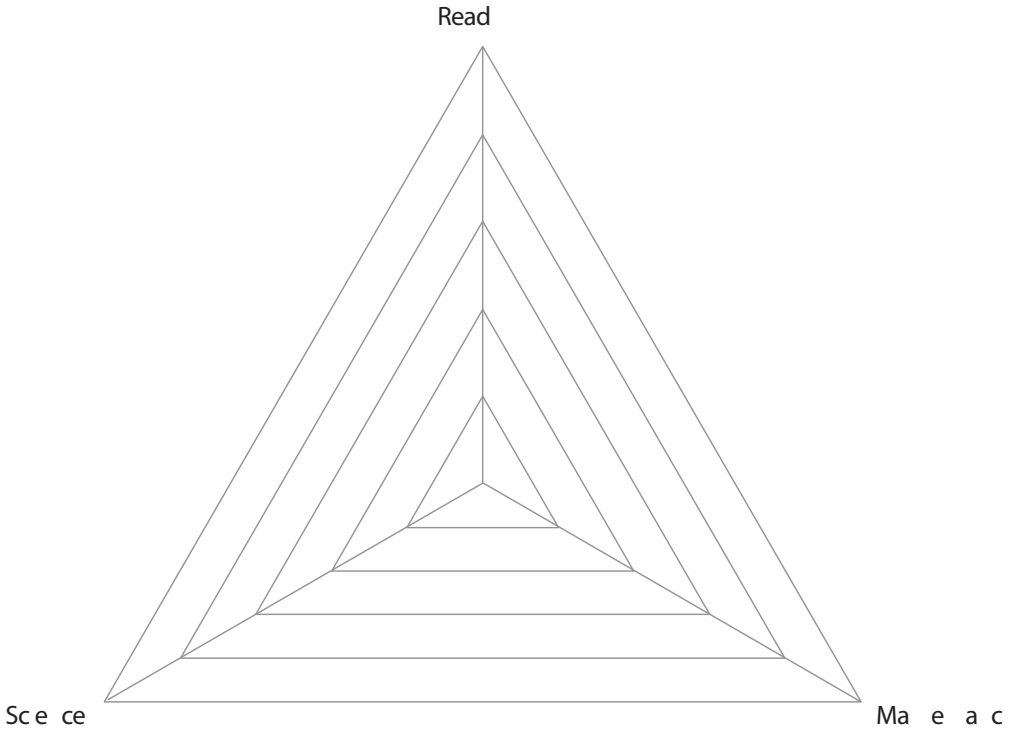
SINGAPORE

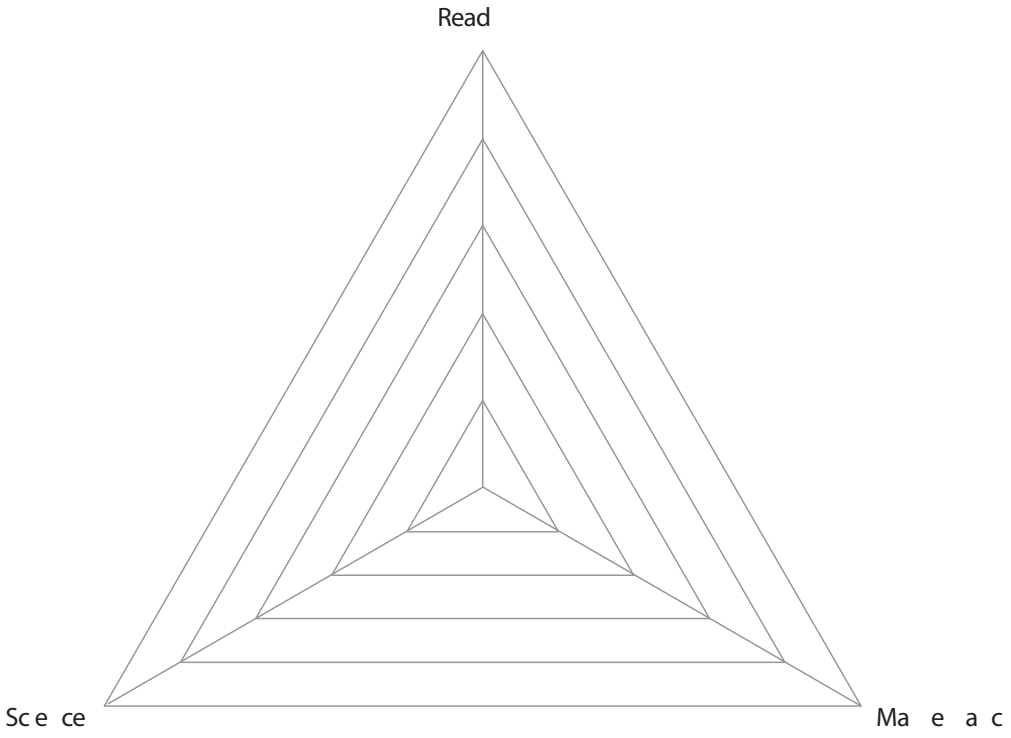
CHINESE TAIPEI

HONG KONG SAR

FINLAND

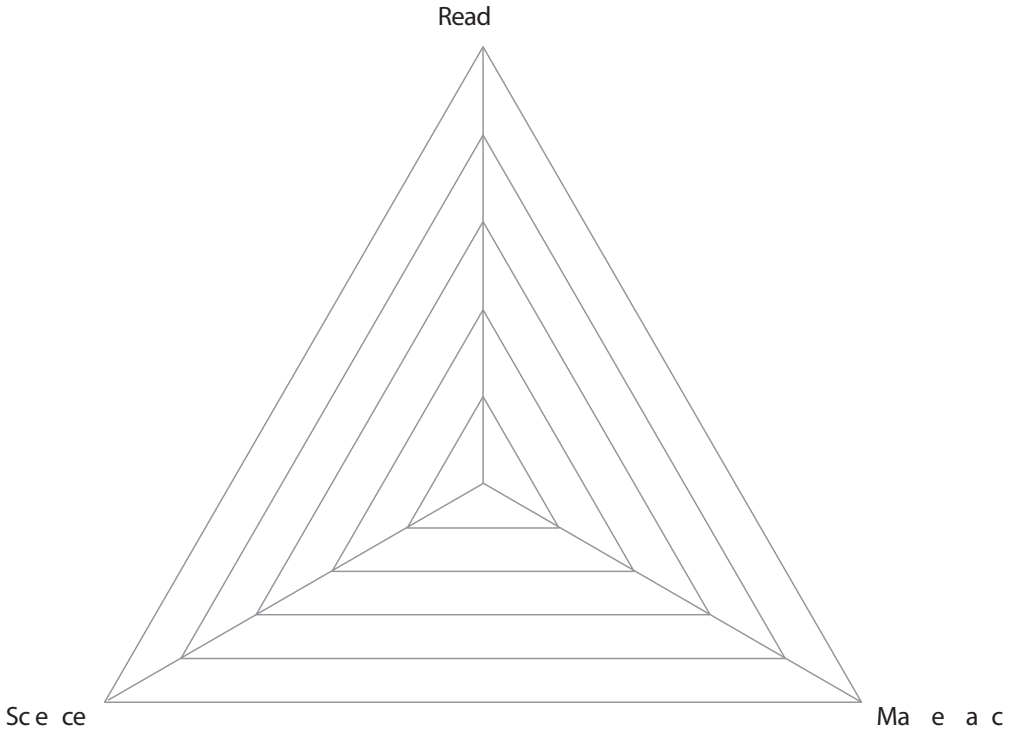
RUSSIAN FEDERATION



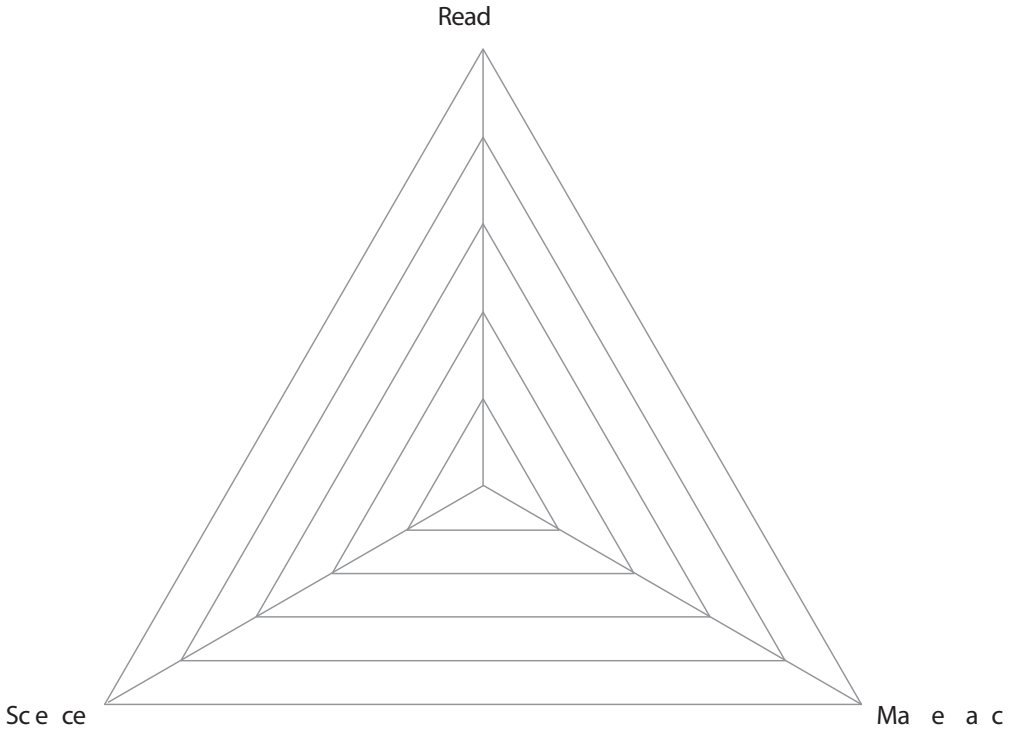


SOURCE: IEA' T e d I e a a Ma e a c a d Sc e ce S . d a d P e I e a a Read L e ac S . d TIMSS a d PIRLS 2011

A T ee S, b ec	35 (1.9)
Read	63 (1.6)
Ma e a c	47 (2.1)
Sc e ce	52 (2.0)



A T ee S, b ec	96 (0.6)
Read	99 (0.3)
Ma e a c	97 (0.5)
Sc e ce	98 (0.4)



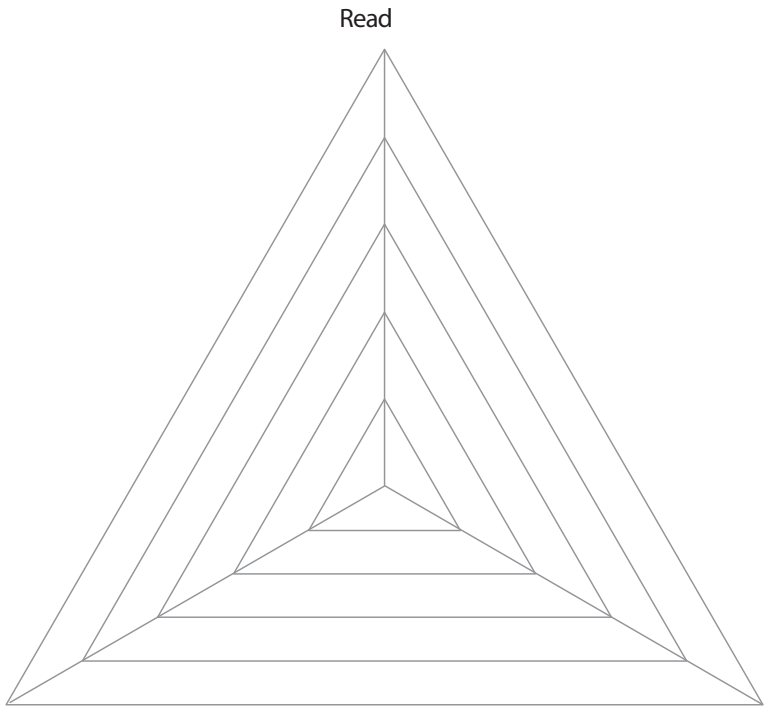
NORTHERN IRELAND [illegible] (5 %) [illegible], (5 %), [illegible] (34%). [illegible] 2 [illegible].

HUNGARY [illegible] (4 %) [illegible] (4%), [illegible] 3 [illegible].

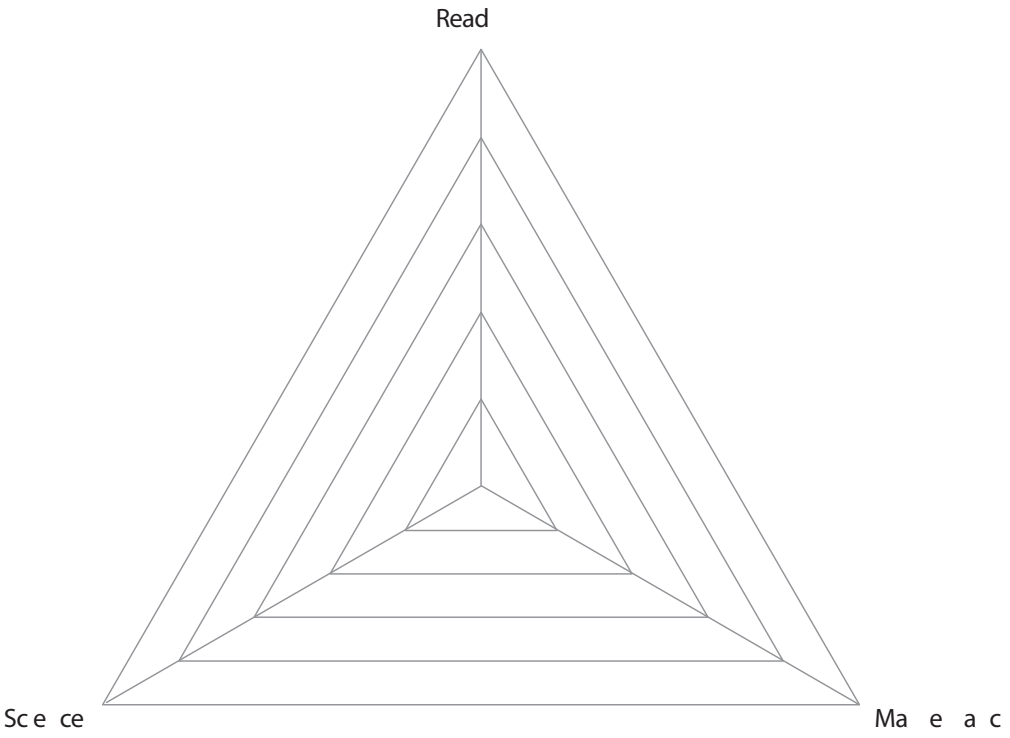
IRELAND [illegible] 54 [illegible] 41 [illegible] 35 [illegible] 0 [illegible].

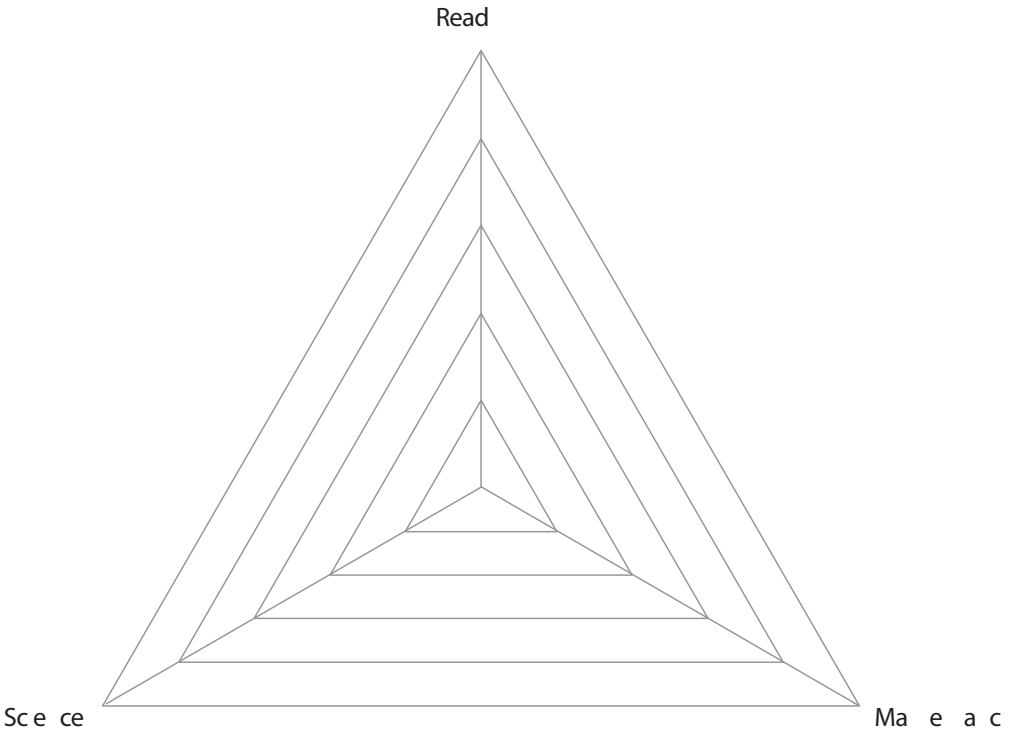
GERMANY [illegible]

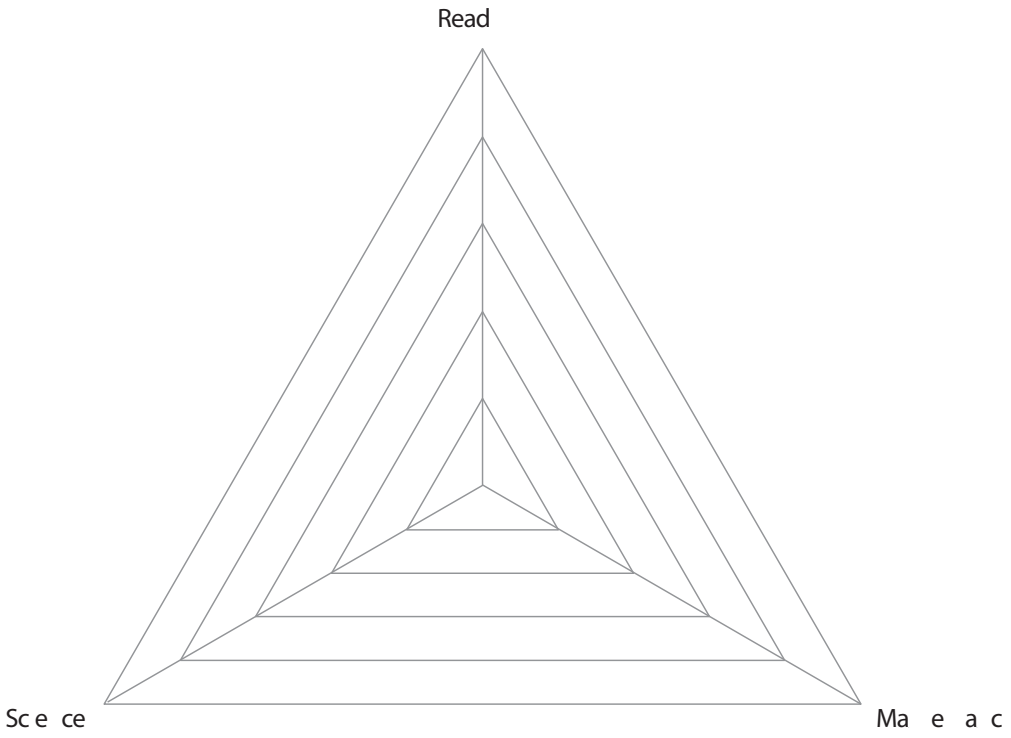
SOURCE: IEA' T e d I e a a Ma e a c a d Sc e ce S . d a d P e I e a a Read S . d TIMSS a d PIRLS 2011

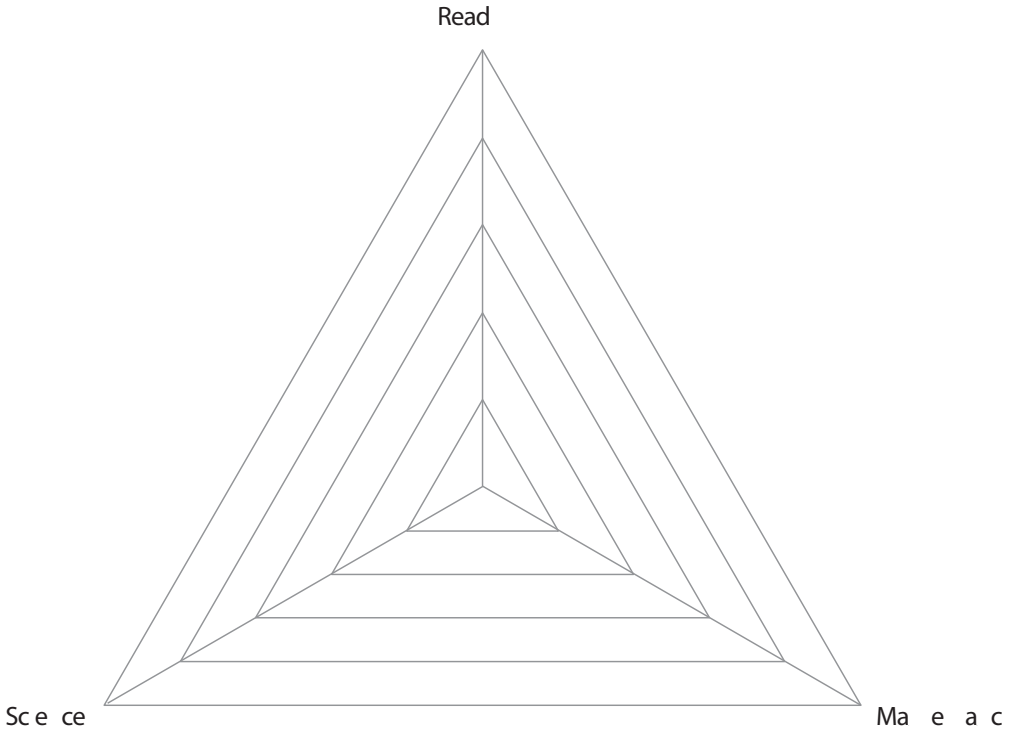


SOURCE: IEA' Te d I e a a Ma e a c a d Sce ce S . d a d P e I e a a Read L e ac S . d TIMSS a d PIRLS 2011

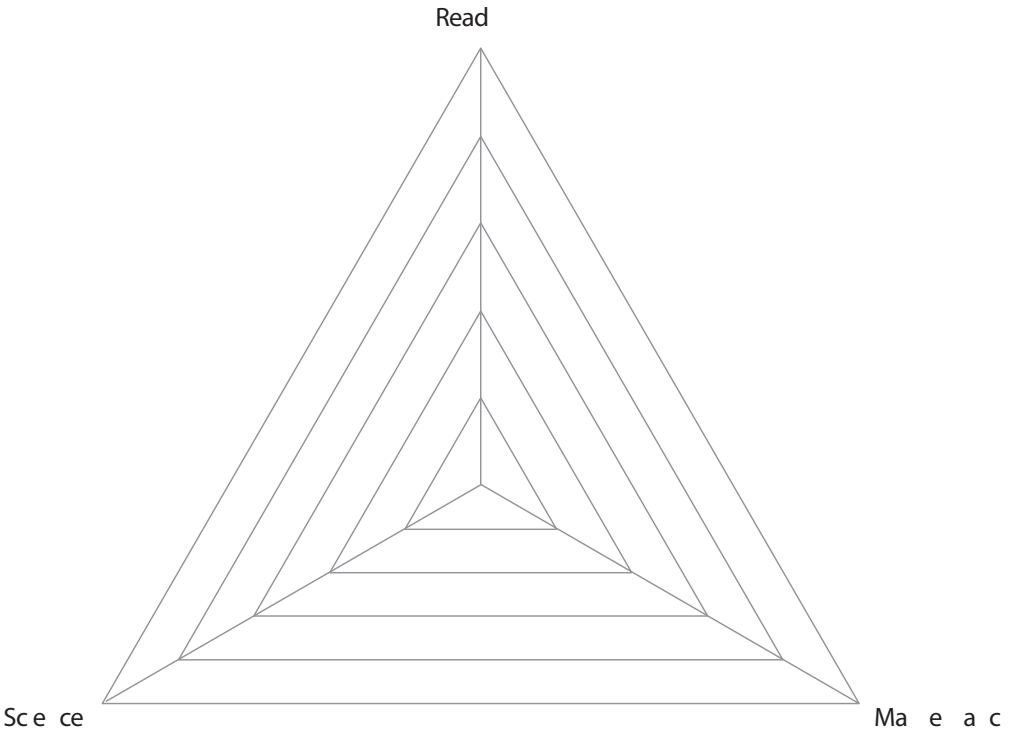

Read
Sc e ce
Ma e a c

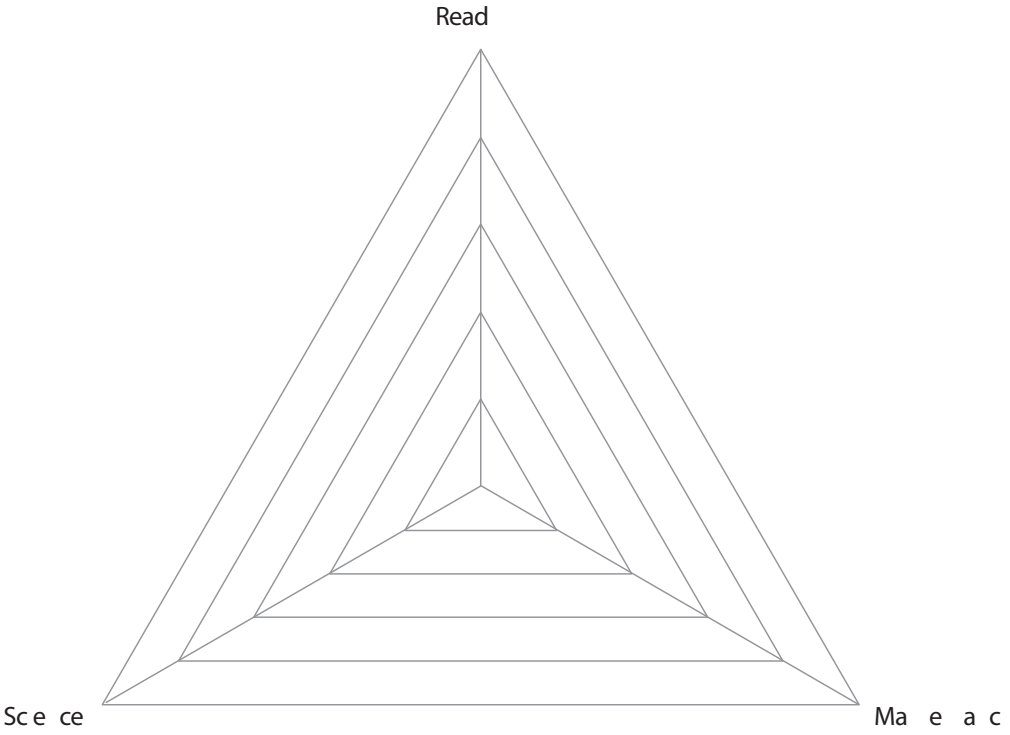

Read
Sc e ce
Ma e a c





SOURCE: IEA' T e d I e a a Ma e a c a d Sc e ce S . d a d P e I e a a Read L e ac S . d TIMSS a d PIRLS 2011


Read
Sc e ce
Ma e a c


Read
Sc e ce
Ma e a c

AUSTRALIA

CZECH REPUBLIC

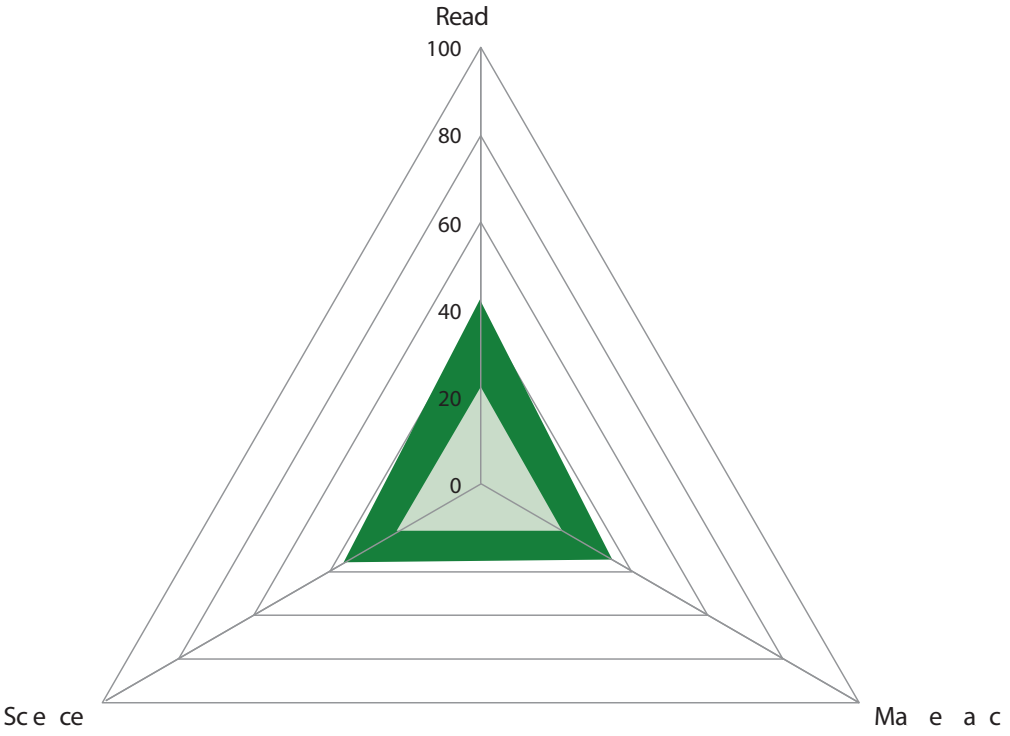
SLOVAK REPUBLIC

LITHUANIA

SLOVENIA

S de Reac g e TIMSS a d PIRLS 2011 H g l e a a Be c a	
S bec	Pe ce fS de
A T ee S. bec	22 (1.2)
Read	42 (1.2)
Ma e a c	35 (1.4)
Sc e ce	36 (1.4)

() S a da d e a ea a e e .



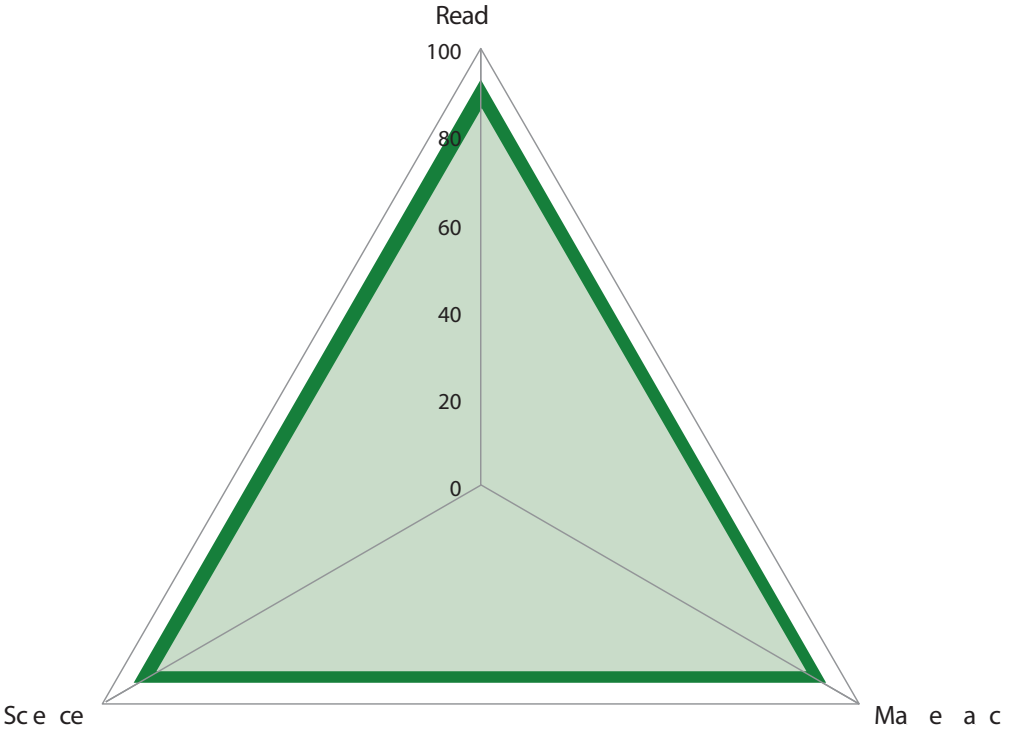
Pe ce fS. de Reac e H
TIMSS & PIRLS I e a a Be c a

A T ee S. bec

I A Lea O e S. bec b. N A T ee

S de Reac g e TIMSS a d PIRLS 2011 L l e a a Be c a	
S bec	Pe ce fS de
A T ee S. bec	86 (1.1)
Read	93 (0.7)
Ma e a c	91 (0.9)
Sc e ce	92 (0.9)

() S a da d e a ea a e e .



Pe ce fS. de Reac e H
TIMSS & PIRLS I e a a Be c a

A T ee S. bec

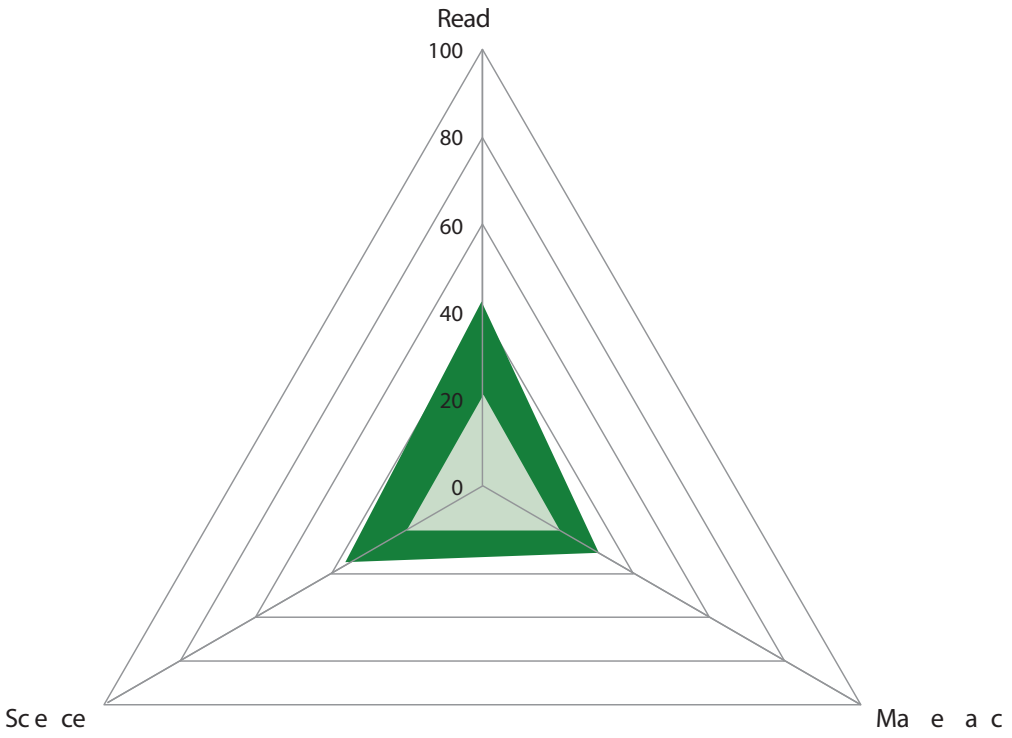
I A Lea O e S. bec b. N A T ee

SOURCE: IEA' Te d I e a a Ma e a c a d Sc e ce S . d a d P e I e a a Read L e ac S . d TIMSS a d PIRLS 2011

SOURCE: IEA' Te d I e a a Ma e a c a d Sce ce S. d a d P e I e a a Read L e ac S. d TIMSS a d PIRLS 2011

S de Reac g e TIMSS a d PIRLS 2011 H g l e a a Be c a	
S bec	Pe ce fS de
A T ee S. bec	20 (1.3)
Read	42 (1.3)
Ma e a c	31 (1.3)
Sc e ce	36 (1.6)

() S a da d e a ea a e e .



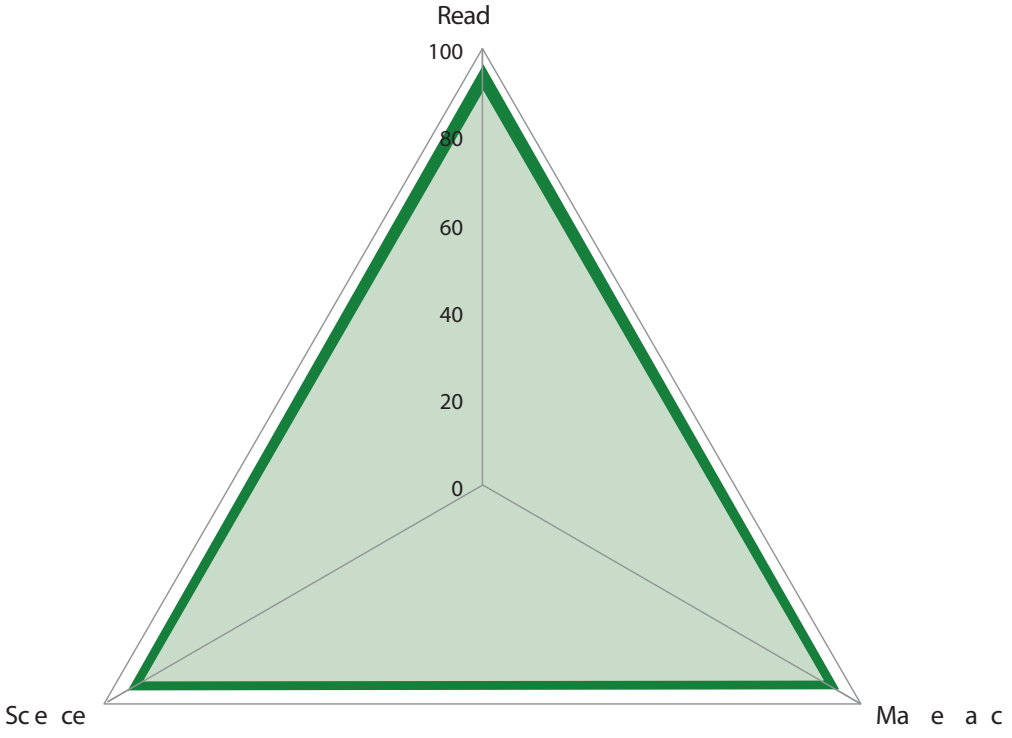
Pe ce fS de Reac e H TIMSS & PIRLS I e a a Be c a

A T ee S. bec

I A Lea O e S. bec b. N A T ee

S de Reac g e TIMSS a d PIRLS 2011 L l e a a Be c a	
S bec	Pe ce fS de
A T ee S. bec	90 (0.7)
Read	96 (0.5)
Ma e a c	94 (0.6)
Sc e ce	94 (0.6)

() S a da d e a ea a e e .



Pe ce fS de Reac e H TIMSS & PIRLS I e a a Be c a

A T ee S. bec

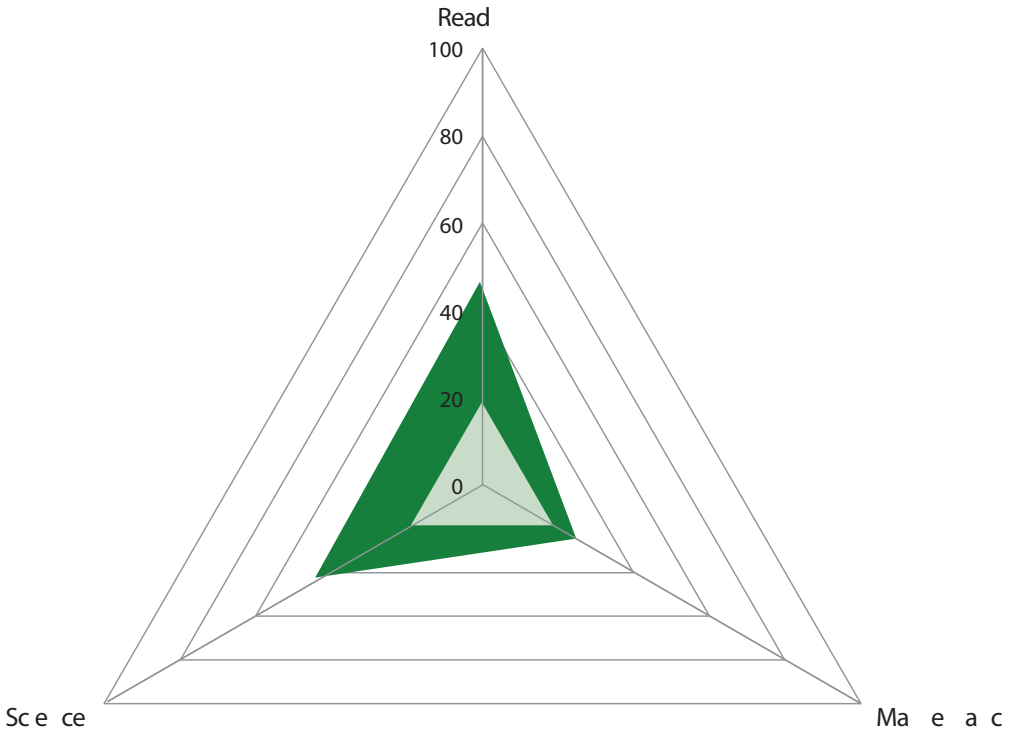
I A Lea O e S. bec b. N A T ee

ITALY

SWEDEN

Student Reaching the TIMSS and PIRLS 2011 High International Benchmark	
Subject	Percentage of Students
All Three Subjects	18 (1.1)
Reading	47 (1.6)
Mathematics	25 (1.2)
Science	44 (1.5)

( ) Standard errors appear in parentheses.

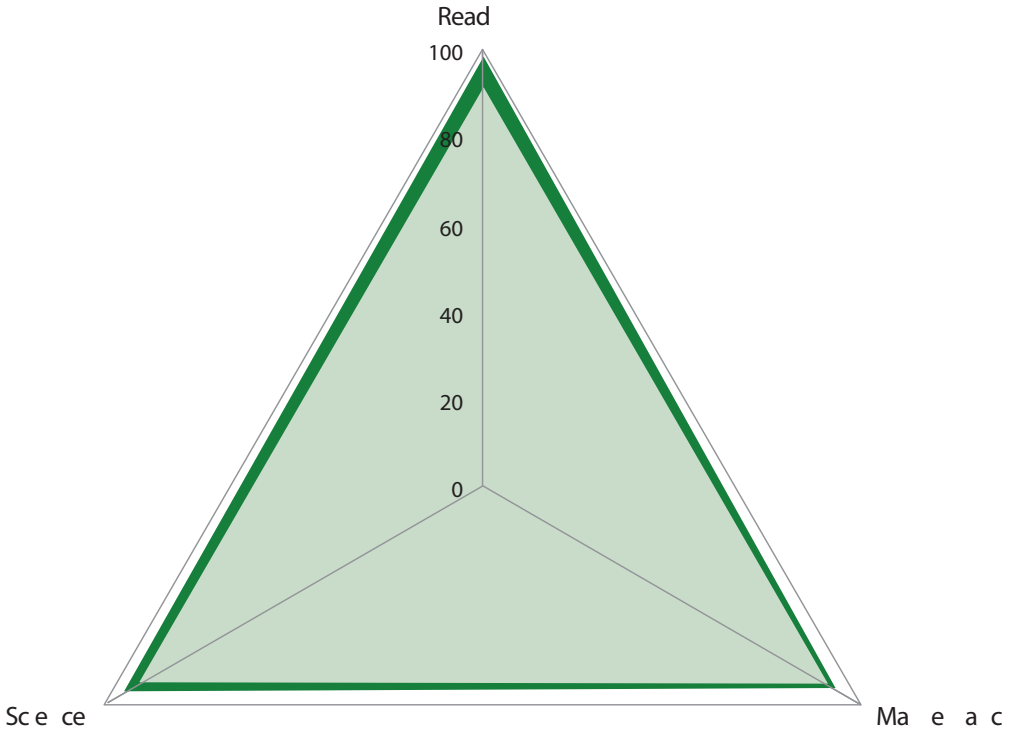


Percentage of Students Reaching the TIMSS & PIRLS International Benchmarks

- All Three Subjects
- In All Other Subjects but Not All Three

Student Reaching the TIMSS and PIRLS 2011 Low International Benchmark	
Subject	Percentage of Students
All Three Subjects	91 (0.7)
Reading	98 (0.3)
Mathematics	93 (0.6)
Science	95 (0.5)

( ) Standard errors appear in parentheses.



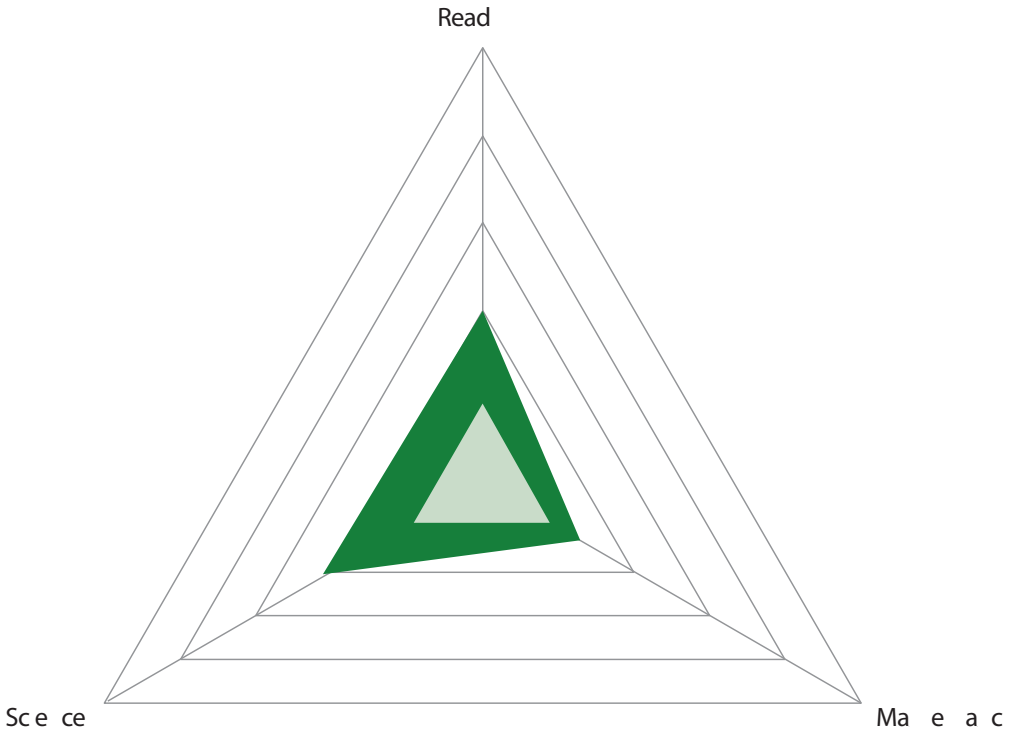
Percentage of Students Reaching the TIMSS & PIRLS International Benchmarks

- All Three Subjects
- In All Other Subjects but Not All Three

SOURCE: IEA's Trends in International Mathematics and Science Study and Progress in International Reading Literacy Study TIMSS and PIRLS 2011

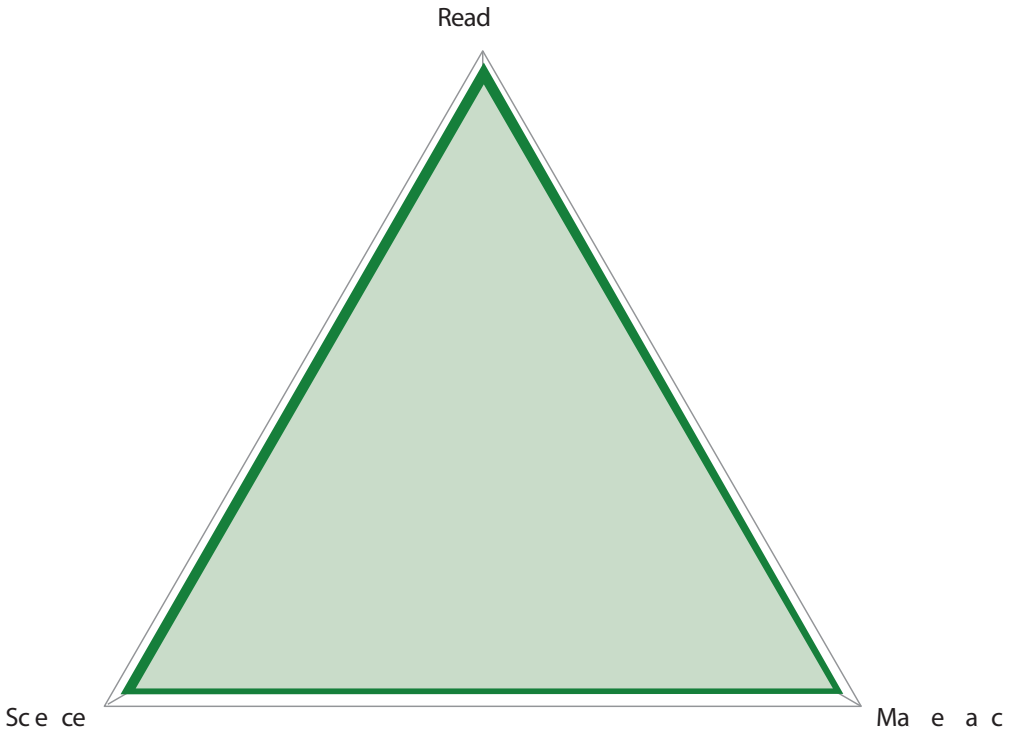
S de Reac g e TIMSS a d PIRLS 2011 H g l e a a Be c a	
S b ec	Pe ce f S de
A T ee S, b ec	18 (1.2)
Read	39 (1.5)
Ma e a c	26 (1.5)
Sc e ce	42 (1.7)

() S a da d e a ea a e e .



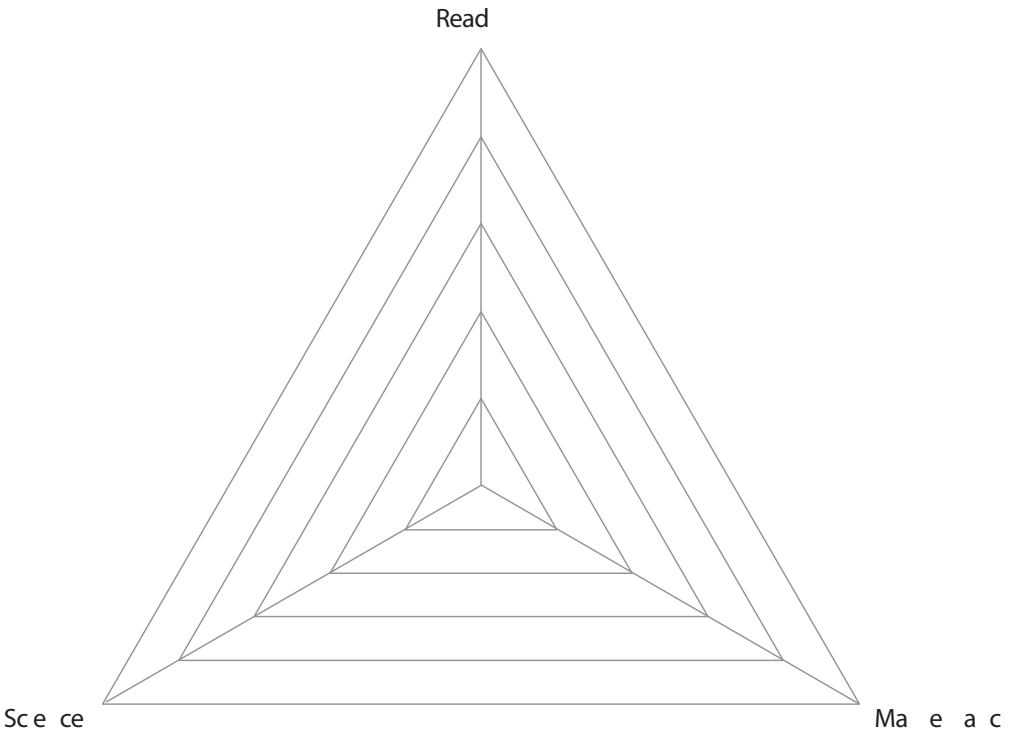
S de Reac g e TIMSS a d PIRLS 2011 L l e a a Be c a	
S b ec	Pe ce f S de
A T ee S, b ec	92 (0.8)
Read	97 (0.4)
Ma e a c	95 (0.7)
Sc e ce	96 (0.6)

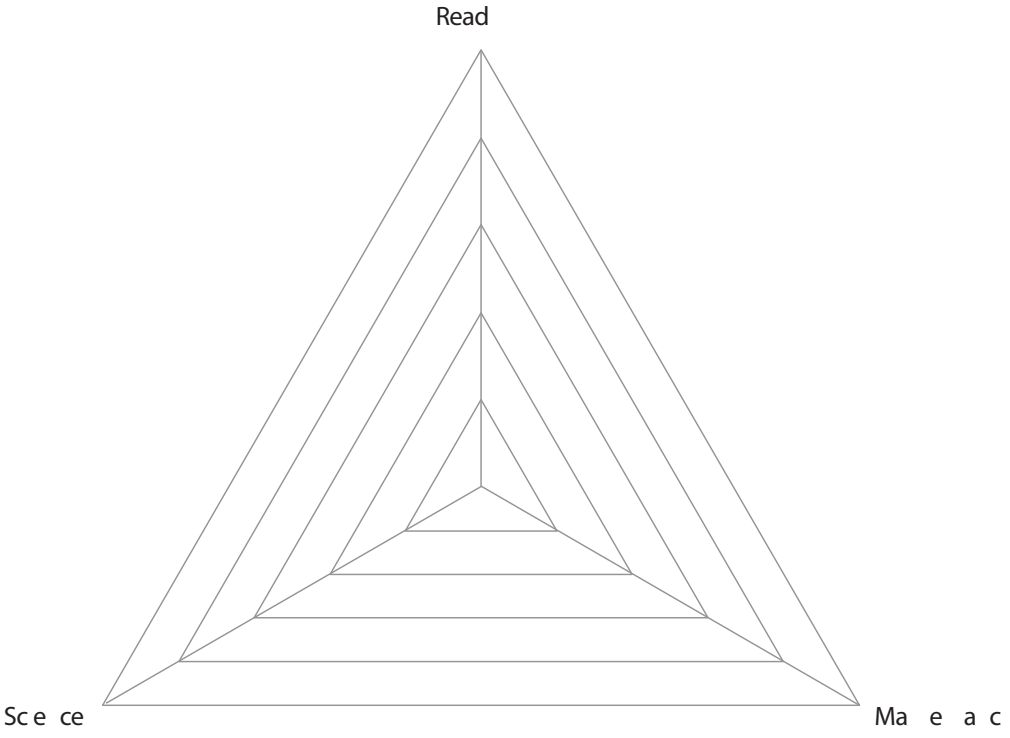
() S a da d e a ea a e e .

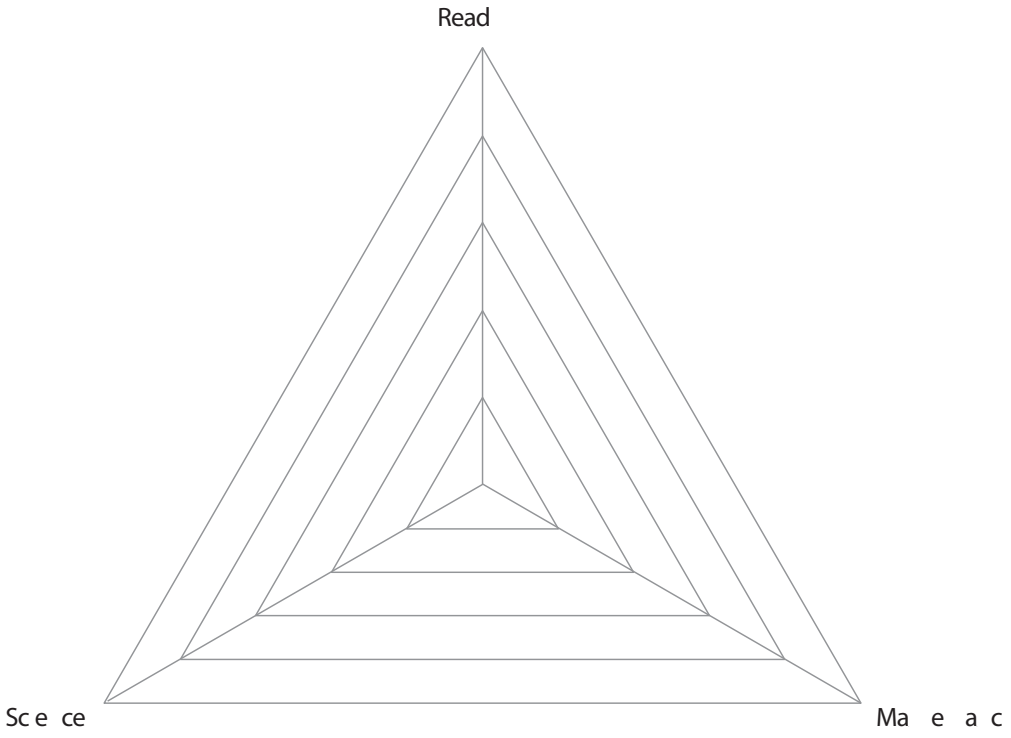


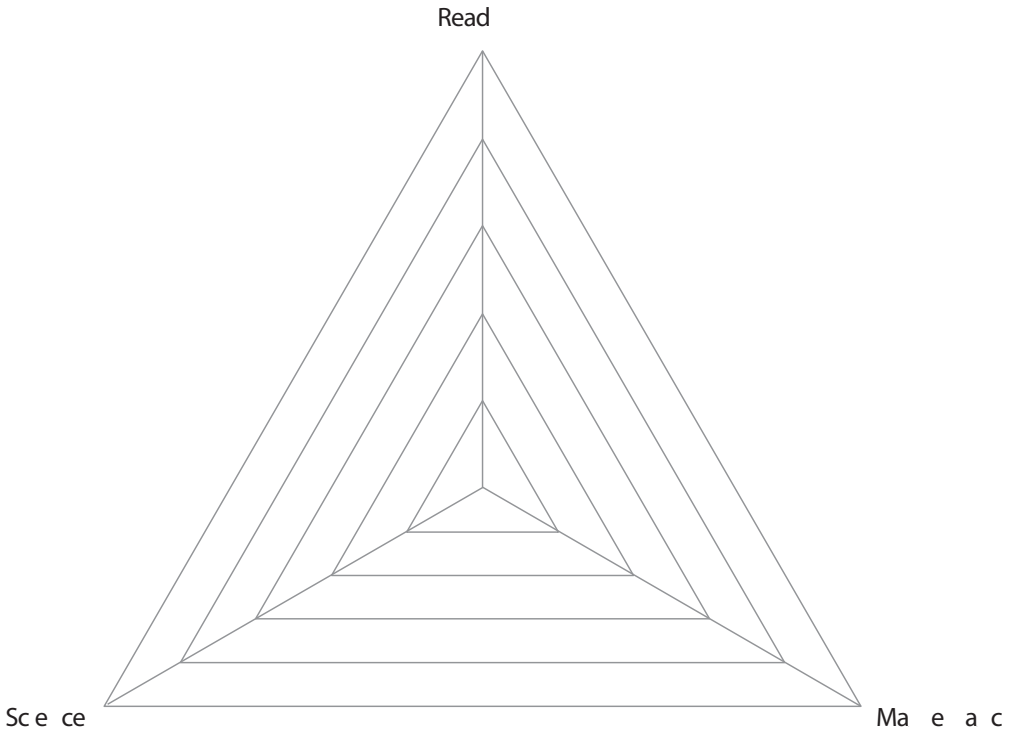
POLAND

SPAIN


Read
Sc e ce
Ma e a c


Read
Sc e ce
Ma e a c





SOURCE: IEA' T e d I e a a Ma e a c a d Sc e ce S . d a d P e I e a a Read L e ac S . d TIMSS a d PIRLS 2011

GEORGIA

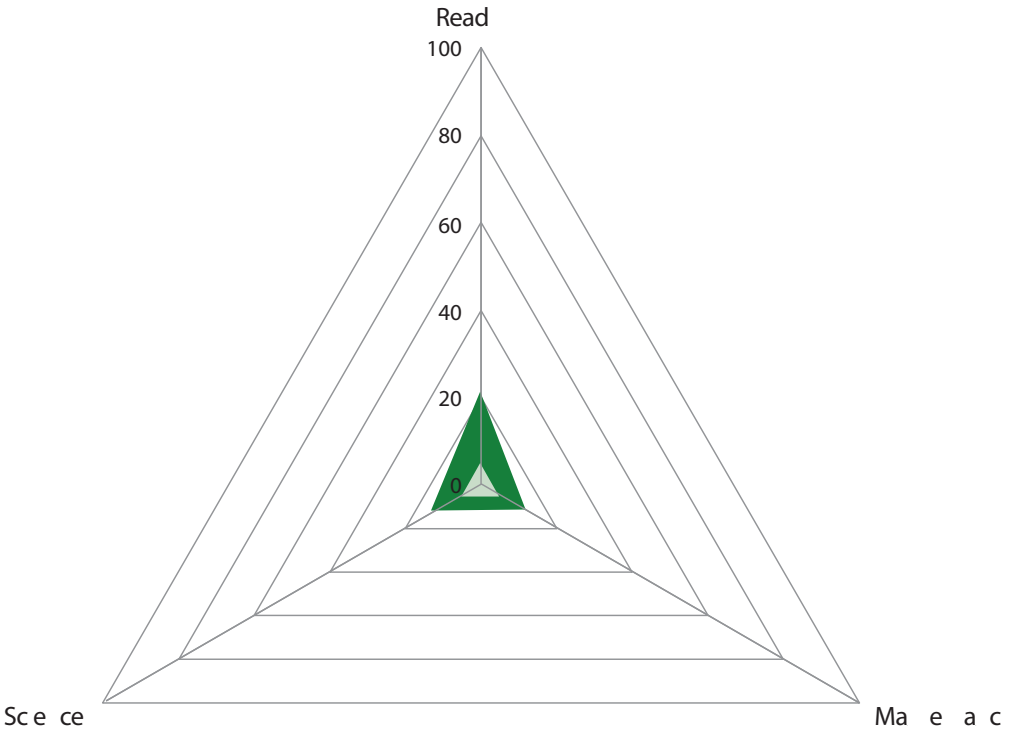
IRAN

QATAR

AZERBAIJAN

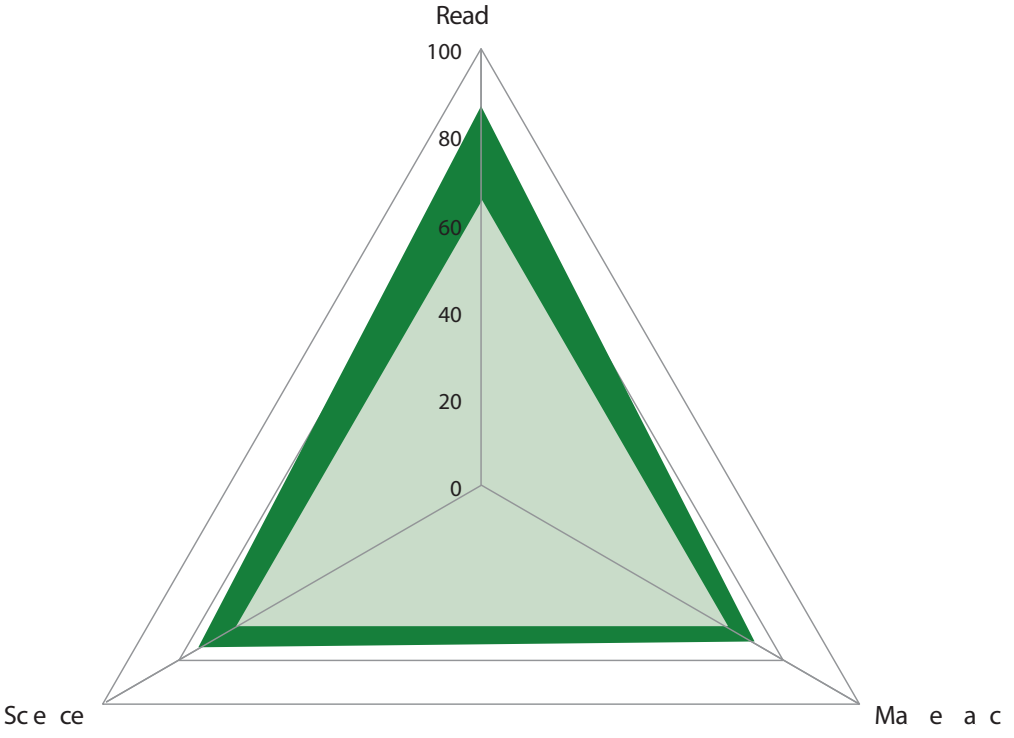
S de Reac g e TIMSS a d PIRLS 2011 Hg l e a a Be c a	
S bec	Pe ce fS de
A T ee S, b ec	5 (0.7)
Read	21 (1.2)
Ma e a c	12 (1.0)
Sc e ce	13 (1.2)

() S a da d e a ea a e e .



S de Reac g e TIMSS a d PIRLS 2011 L l e a a Be c a	
S bec	Pe ce fS de
A T ee S, b ec	65 (1.6)
Read	87 (1.4)
Ma e a c	72 (1.7)
Sc e ce	75 (1.6)

() S a da d e a ea a e e .



SOURCE: IEA' Te d I e a a Ma e a c a d Sce ce S. d a d P e I e a a Read L e ac S. d TIMSS a d PIRLS 2011

SOURCE: IEA's Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS) 2011

OMAN

MOROCCO

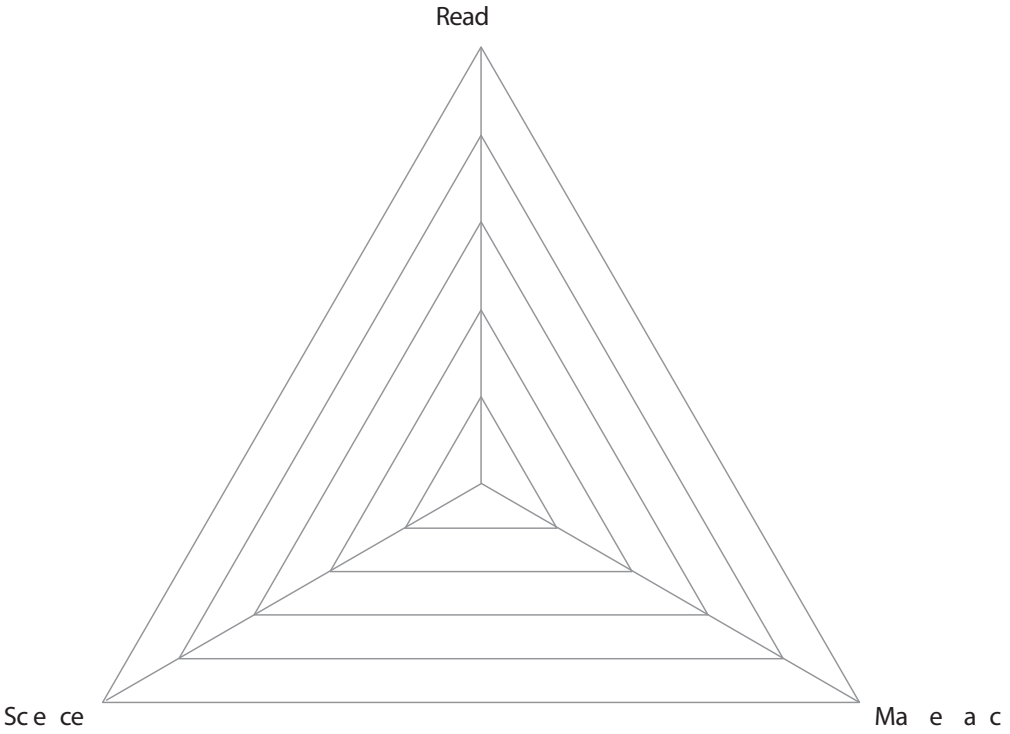
Countries at the Sixth Grade

BOTSWANA

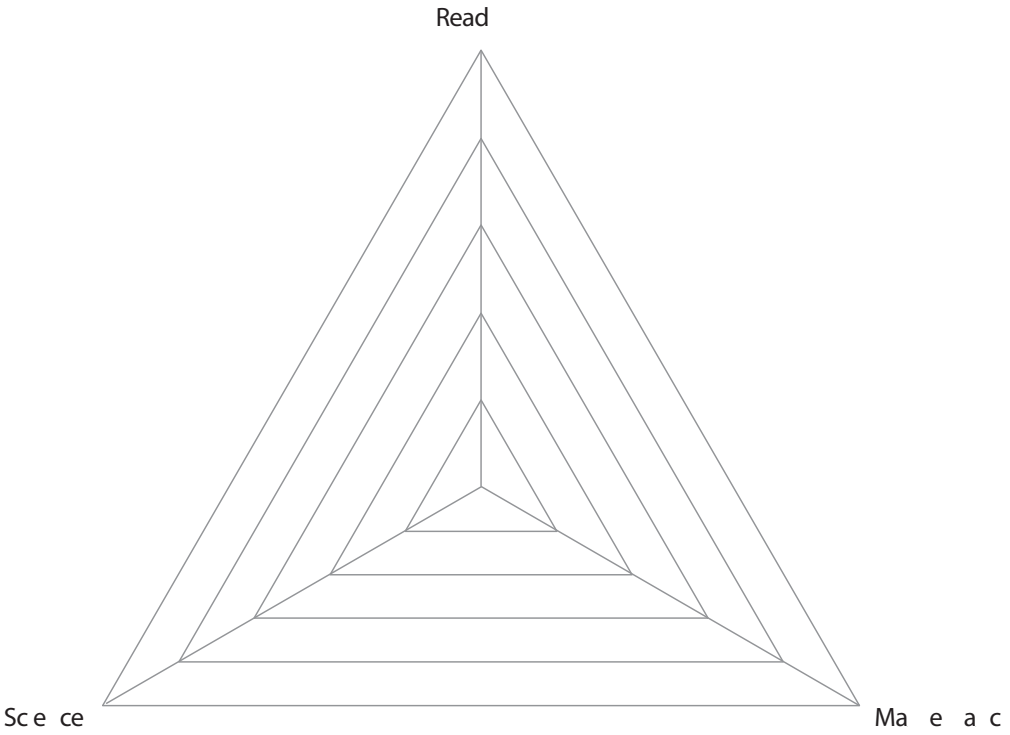
HONDURAS

Benchmarking Participants

S de Reac g e TIMSS a d PIRLS 2011 Hg l e a a Be c a	
S bec	
A T ee S, b ec	1 (0.2)
Read	5 (0.4)
Ma e a c	5 (0.3)
Sc e ce	7 (0.7)



A T ee S, b ec	30 (1.0)
Read	48 (1.2)
Ma e a c	46 (1.2)
Sc e ce	45 (1.4)



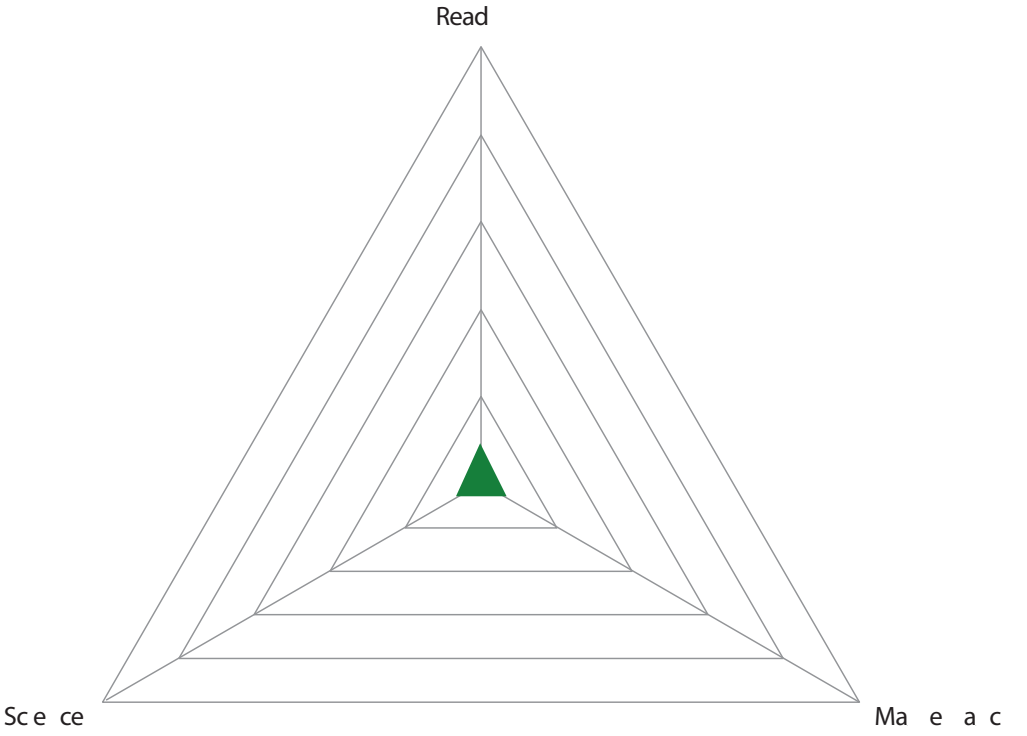
DUBAI, UNITED ARAB EMIRATES

ABU DHABI, UNITED ARAB EMIRATES

Summary

Students Reaching the TIMSS and PIRLS 2011 High International Benchmark	
Subject	Percent of Students
At Three Subjects	3 (0.7)
Reading	9 (1.3)
Mathematics	7 (1.0)
Science	7 (1.1)

( ) Standard errors appear in parentheses.

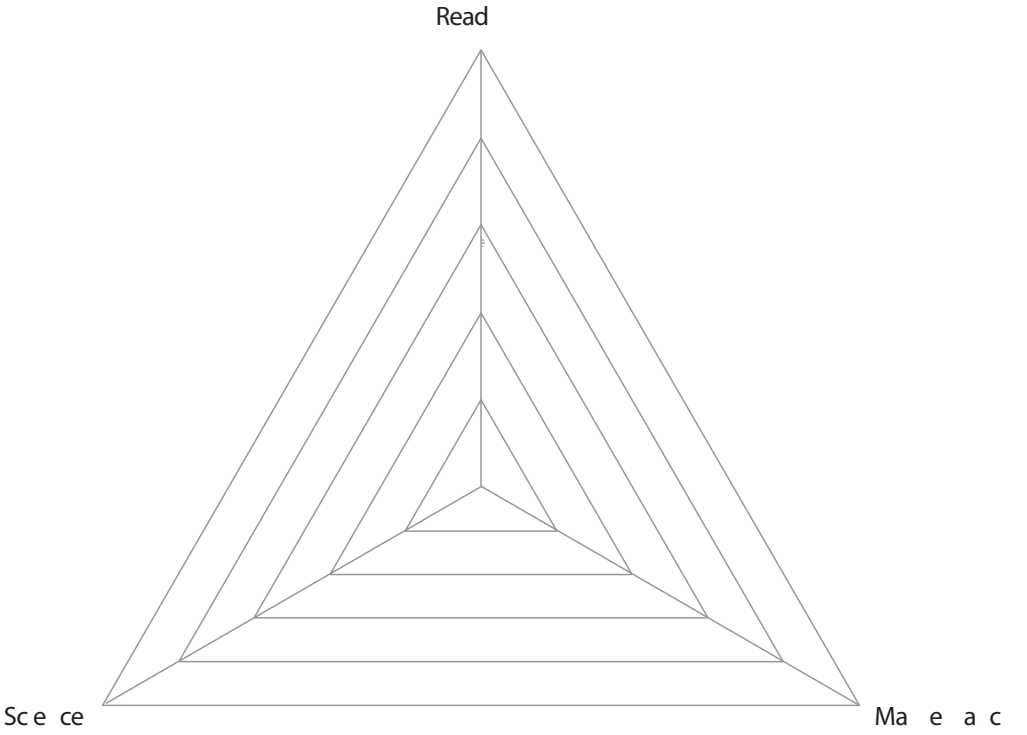


Percent of Students Reaching the TIMSS & PIRLS International Benchmark

- At Three Subjects
- In At Least One Subject but Not At Three

Students Reaching the TIMSS and PIRLS 2011 Low International Benchmark	
Subject	Percent of Students
At Three Subjects	37 (1.8)
Reading	56 (1.8)
Mathematics	60 (1.6)
Science	43 (1.8)

( ) Standard errors appear in parentheses.



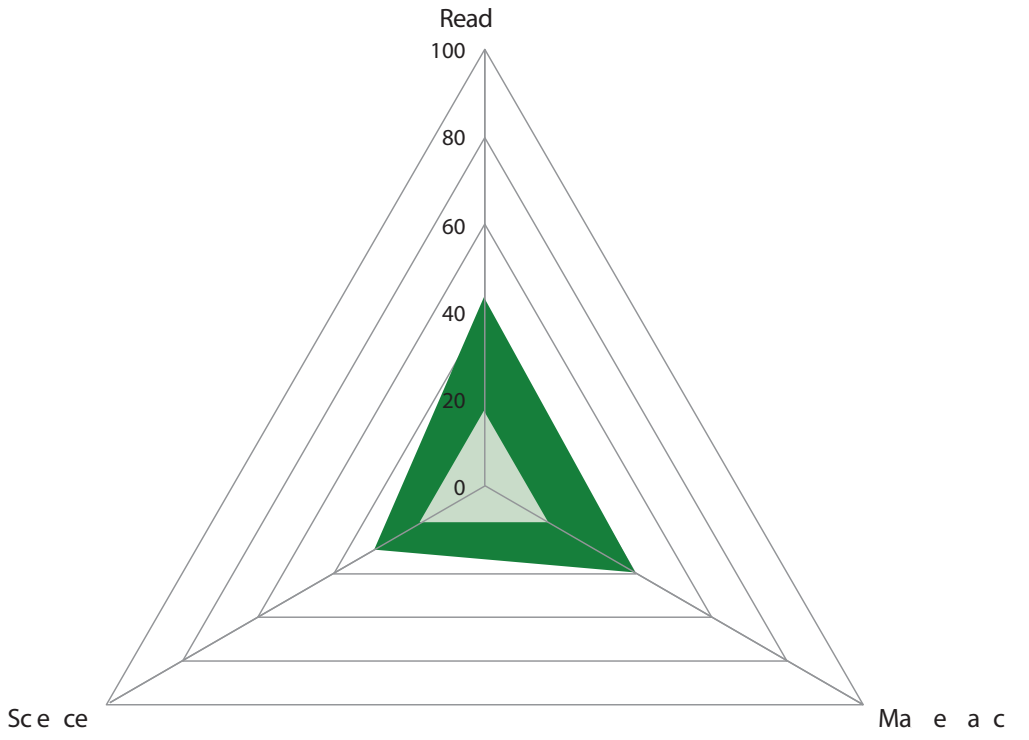
Percent of Students Reaching the TIMSS & PIRLS International Benchmark

- At Three Subjects
- In At Least One Subject but Not At Three

SOURCE: IEA's Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS) 2011

S de Reac g e TIMSS a d PIRLS 2011 H g l e a a Be c a	
S b ec	Pe ce f S de
A T ee S. b ec	17 (1.2)
Read	43 (1.8)
Ma e a c	40 (1.7)
Sc e ce	29 (1.5)

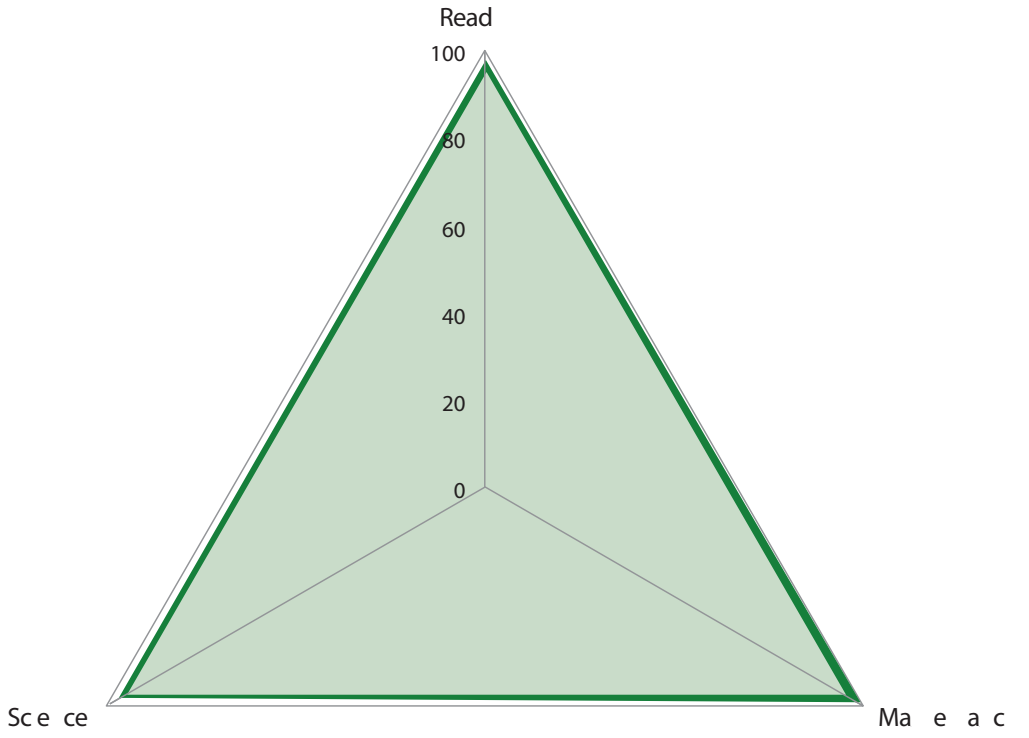
() S a da d e a ea a e e .



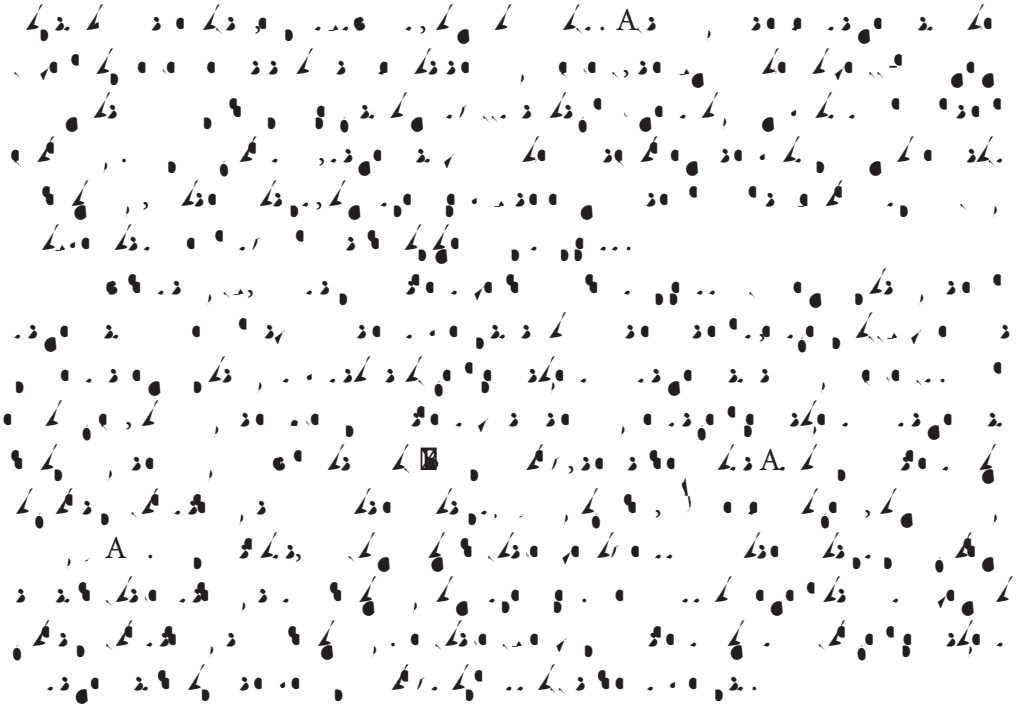
Pe ce f S. de Reac e H
TIMSS & PIRLS I e a a Be c a
A T ee S. b ec
I A Lea O e S. b ec b. N A T ee

S de Reac g e TIMSS a d PIRLS 2011 L l e a a Be c a	
S b ec	Pe ce f S de
A T ee S. b ec	95 (0.5)
Read	98 (0.3)
Ma e a c	99 (0.3)
Sc e ce	97 (0.4)

() S a da d e a ea a e e .



Pe ce f S. de Reac e H
TIMSS & PIRLS I e a a Be c a
A T ee S. b ec
I A Lea O e S. b ec b. N A T ee

SOURCE: IEA' T e d I e a a Ma e a c a d Sc e ce S. d a d P e I e a a Read L e a c S. d TIMSS a d PIRLS 2011

SOURCE: IEA's Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS) 2011