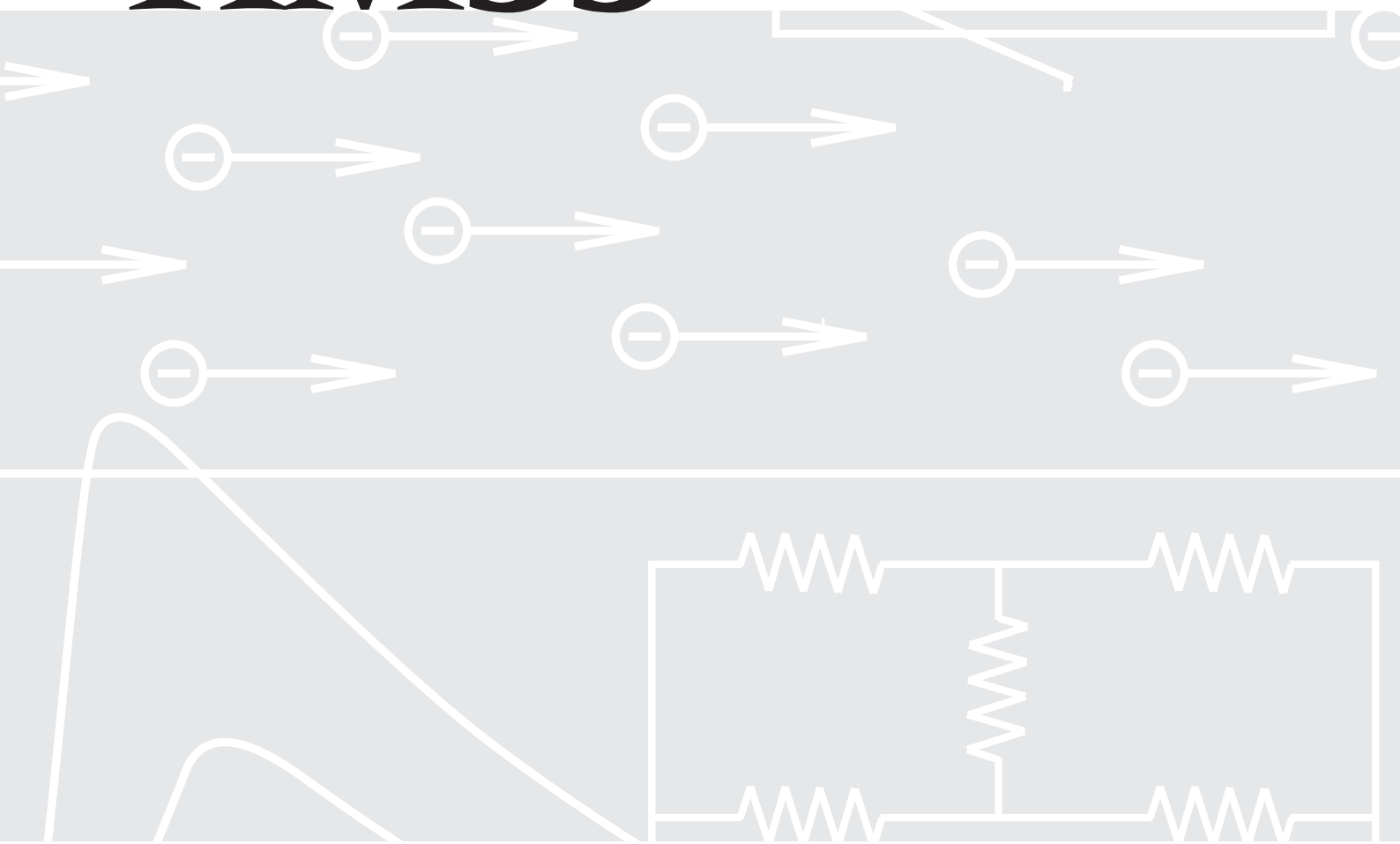


TRENDS IN INTERNATIONAL

# TIMSS



International Association for the Evaluation of Educational Achievement  
aX7VgUSfja` S^3UZ[MWV Wf  
Ä 5abkdYZf;73l \$" " \*

# General Directions

KagdeLZaa^ZSeSYdVW fa bScf[U]bSfW F;? EE 3VhS` UW \$" " \*žEba` eadW Tk fZW` fVd Sf[a` S^ 3eaaU[Sf[a` XadfZW7hSgSf[a` aX7VgUSf[a` S^ 3UZ[VWV\_ Wf;/73fif;? EE^AdFdVVe[ ; fVd SŽ f[a` S^? SfZW\_ Sf[LeS` V EU[VW UMEfgVkf[e\_ VSegdŽ [ Y fdVVe[ efgVWfSUZ[VWV\_ WfS` V efgV[k Y V[ VdVUe[ ` Sf[a` S^VWgUSf[a` ekefV\_e[ adVd fa ZWb [ bdahWVbSUZ[ Y S` V Vsd [ Y i adVŽ i [V]

3ebScf aXfZWefgVkt efgVW fe[ S` Sf[a` i [WV eS\_ b`Wax. fi WfZŽYdSVW USeeV[ . Uag` fckO i [^Ua\_ b`WfZWf;? EE 3VhS` UW\_ SfZW\_ SfŽ [LeS` V!adbZke[Le fVfēZ[e]cgVf[a` ` S[dM[e SVVdVW fa fZWVbSUZVW aXfZVW efgVW fež3e SfVbSUZVW aXa` W aXfZVW eS\_ b`W USeeV kagddV eba` eV fa fZVWcgVf[a` eSdVhV[k [ badS` f [ ZWb[ Y fa VVU[TWVgUSf[a` [ . Uag` fckOž

Ea\_ W aXfZWcgVf[a` e[ fZ[e]cgVf[a` ` S[dVWVd ebWU[-US^k fa efgVW fe[ fZWf;? EE USeeSfZ[e [efZWUSee fZSf [e[VWf[-W a` fZWahVW aXfZ[e cgVf[a` ` S[dMS` Vi [^TWVWVW SebScf aXF;? EE 3VhS` UW \$" " \* [ kagdeLZaaž;f [e [ badS` f fZSf kag S` ei VdVbSUZ cgVf[a` U dVg^k ea fZSf fZW [ Xad\_ Sf[a` kag bdah[VWVWVefekagde[fgSf[a` Se SUg[SfVWk Sebae[TV

BVSeW[VWf[k S f[ WS` V b^SUI ZVdWkagi [^ TWST`Mfa La\_ b`WfZ[e]cgVf[a` ` S[dM [fZagf TWV Y [ fVdgbfWžFZ[eēZagV dVtgdW a\_ adV fZS` & \_ [ gfVēFa \_ S]Wf SeVbSk Sebae[TVad kag fa dVba` Vt\_ aefcgVf[a` e\_ Sk TWS` ei VdV e[ b^k Tk ~^f Y [ fZVbSbbcbdqSfWU[VW

A` UWkag ZShWLa\_ b`WfZWcgVf[a` ` S[dM b^SUIf [ fZVdVgd W hWabWbdah[VW S` V dV

# Background Information

## 1 \_\_\_\_\_

How old are you?

Fill in **one** circle only

G` Wd\$' -----○

\$' , \$+-----○

%' , %+-----○

&" , &+-----○

' " , ' +-----○

(" ada Wd-----○



11

**In the past two years, have you participated in professional development in any of the following?**

*Fill in **one** circle for each row*

           **No**  
           **Yes**

**13**

Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements.

Fill in **one** circle for each row

	Disagree a lot	Disagree	Agree	Agree a lot
Sfi FZ[eelZaa^e`aUSfW [				
SeSXW VYZTadZaaV	-----	○	---	○
Tfi ;XWSeSXWsfZ[eelZaa^	-----	○	---	○
Ufi FZ[eelZaa^e`Wgdfk ba [UW				
S` V bcdSUfUW`SdWeg UjWf -	-----	○	---	○

**15**

How would you characterize each of the following within your school?

Fill in **one** circle for each row

	Very high	High	Medium	Low	Very low
Sfi FV\$UZVda`aT					
eSf[eXSUf[a`	-----	○	---	○	-----
Tfi FV\$UZVda`g`WVdS`V[ Y					
aXfZWUZaa^e`Ugd[Ug`Sd					
YaS'e	-----	○	---	○	-----
Ufi FV\$UZVda`WVdWdX					
egUW`e [ _ b^W`Wf[ Y					
fZWUZaa^e`Ugd[Ug`_	-----	○	---	○	-----
Vfi FV\$UZVda`Vj/bWVfSf[a` e					
XdefgWVf					
SUZ[VWV`Wf	-----	○	---	○	-----
Wfi Egbbad`XadfV\$UZVda`					
bcaXW`e[a` S^					
VWV`ab`Wf	-----	○	---	○	-----



# Teaching Physics to the TIMSS Class

20

In a typical week of physics lessons for the <TIMSS class>, what percentage of time do students spend on each of the following activities?

Write in the percent  
The total should add to 100%

- Sfi FV&LZ[ Y` W\_ Sfv[S^fa  
fZW Za^WUSee
- Tfi EfgVWfei ad[ [ Y bcdT W\_ ea`  
fZV[dai ` adi [fZ afZVdefgVWfe
- Ufi DVW[W [ Y S` V eg\_ \_ Sd[ [ Y i ZSf ZSe  
TWW fSgYZf XdfZW Za^WUSee
- Vfi DVW[W [ Y Za\_ W ad[
- Wfi DVW&LZ[ Y S` V USc[k[ Y  
Ua` fWf! bcdUWgd^ XdfZW  
i Za^WUSee
- Xfi AdS^adi dffW fVefeadcg[ I Ve
- Yfi 5^Secha\_ \_ S` SYW Wf fSe]e  
` af dVSW fa fZWVea` ie  
Ua` fWf!bgbaeWVW[ [ fVtgbf[a` e

21

In teaching physics to the students in the <TIMSS class>, how often do you usually ask them to do the following?

Fill in **one** circle for each row

- |                                                                   | Every or almost every lesson | About half the lessons | Some lessons          | Never                 |
|-------------------------------------------------------------------|------------------------------|------------------------|-----------------------|-----------------------|
| Sfi I S&LZ_ WWW_ a` efd&FW<br>S` VybWd_ Wfad<br>[ hW[YSf[a`       | <input type="radio"/>        | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> |
| Tfi 5a` VgUf VybWd_ Wfe<br>ad[ hW[YSf[a` e                        | <input type="radio"/>        | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> |
| Ufi GeWSi eS` V Xad_g^SeaX<br>bZke[Uefa ea hWtagf[ W<br>bcdT W_ e | <input type="radio"/>        | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> |
| Vfi 9[hWY/b`S` Sf[a` eSTagf<br>ea_ WZ[ Y fZVK SdV<br>efgVk[ Y     | <input type="radio"/>        | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> |
| Wfi DWSFW ZSf fZVK SdV<br>Vsd [ Y [ bZke[Uefa fZWd<br>VS[k hVé    | <input type="radio"/>        | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> |
| Xfi : ShWefgVWfe_ W_ ad[ W<br>Xad_g^SeS` V bcdUWgdVé              | <input type="radio"/>        | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> |
| Yfi DV&V fZV[dVW/ftaa] ead<br>afZVdVagdW_ Sfv[S`e                 | <input type="radio"/>        | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> |





The following list includes the main topics addressed by the TIMSS physics test. Choose the response that best describes when students in the <TIMSS class> have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

Fill in **one** circle for each row

Not yet taught or  
just introduced  
 Mostly taught this year  
 Mostly taught before this year

**A. Mechanics**

- Sfi FZVLa` V[f]a` eXadVtq[ fTdg\_ S` V fZVWk` S\_ [UeaXV[ VdVf fkbVeaX\_ ahV\_ Wf----- O -- O -- O
- Tfi =[ V[US` V bafWf[S`WVdk-La` eVhSf[a` aX\_ VVZS` [US`WVdk----- O -- O -- O
- Ufi ? VVZS` [US`i ShWbZWa\_ WS[ eag` Vi SfVdS` V efd[ Ye-fZVdVMSf[a` eZ[b  
TVi WV ebVWV XdVgWUk` S` Vi ShVWVYfZ-dVMSf[a` ----- O -- O -- O
- Vfi 8adVd [ Ugv[ Y XqUf[a` S`XadVMSUR[ Ya` S\_ ah[ Y TaVk ----- O -- O -- O
- Vfi 8adVdSUR[ Ya` STaVk\_ ah[ Y [ S Ufdg` SdbSfZ-fZWTaVkieUVfd[bVdS`SUUVMSf[a` t  
ebVWV` S` V Ufd[ Y f\_ WfZWSi aXYdsh[fSf[a` [ dVMSf[a` fa fZW\_ ahV\_ Wf aXb` S` We----- O -- O -- O
- Xfi 7Sef[US` V [ Wsef[Ula` feja` -fZVSi aXLa` eVhSf[a` aX\_ a\_ Wfg\_ S` V fZW  
`Si` aXLa` eVhSf[a` aX\_ VVZS` [US`i] [ V[UfVWVdk----- O -- O -- O
- Yfi 3ebVUfeaXdVMSf[hfk`VYz` WYfZ La` fdSUR[a` S` V f\_ WV[SfSf[a` XadS` aTVUf  
\_ ah[ Yi [fZ La` eS` f ebVWV [ dVMSf[a` fa fZWaTeVhVfi----- O -- O -- O

**B. Electricity and Magnetism**

- Sfi 7VUfcbefSf[USfVdSUR[a` addVbg`eja` TVi WV [ea`SfW LZSdVW bSdf[UVd, 5ag`a\_ Tie`Si ----- O -- O -- O
- Tfi 7VUfd[US`Ufdg[fe, AZ\_ ie`Si S` V <ag`Me`Si` XadLa\_ b`Vj` WVUfd[US`Ufdg[fe----- O -- O -- O
- Ufi 5ZSdVW bSdf[UVd[ S\_ SY` V[U-VW-dVMSf[a` eZ[b TVi WV \_ SY` V[e\_ S` V WVUfdUfk-  
8ScSVSkie` S` V >Wl` i` Si` eaX[ VgUf[a` ----- O -- O -- O
- Vfi 7VUfcb\_ SY` V[UdSV[Sf[a` -i` ShVWVYfZ` S` V XdVgWUk` aXhScjagefkbVeaXi` ShVd  
VYz` dV[at [ XsdVl` j` Zskel` YZffi----- O -- O -- O

**C. Heat and Temperature**

- Sfi 6[ VdVUWTVi WV ZVbS` V fV\_ bVdSfgdVZVbS` fS` eVMS` V ebVU[-UZVbS`USbSUR[Vd-  
VhSbacdf[a` S` V La` VWeSf[a` ----- O -- O -- O
- Tfi 7j`bS` eja` aXea[VeS` V [cg[Ve[ dVMSf[a` fa fV\_ bVdSfgdVZS` YWfZVSi` aX[VVb`YSeVd-  
fZW-df` Si` aXfZVd\_ aVk` S\_ [Ue----- O -- O -- O
- Ufi : VbS`ZT`SUJ` TaVks`i`SV[Sf[a` S` V fV\_ bVdSfgdV----- O -- O -- O

**D. Atomic and Nuclear Physics**

- Sfi FZVefcdUfgdVhXfZVWsa\_ S` V [fe` gUVge[ fVd\_ eaXWVUfcb` e` bdfaf` e` S` V` Vgfd` e-  
Sfa\_ [U` g\_ TVdS` V Sfa\_ [U\_ See` g\_ TVd----- O -- O -- O
- Tfi >[YZf W\_ [eja` S` V STeacdf[a` S` V fZWTVZSh[adaXWVUfcb` e-fZWbZafaWVUfdUWVUf----- O -- O -- O
- Ufi FkbVeaX` gUVSddVUR[a` e[Vd` -eja` t` Xgeja` t` S` V dSV[aSUR[hWVWskfiS` V fZV[d  
cb` M\_ ` SfgdVWYz [ eSdfS` V eaUVk` VYz` dVUfcd` Ta\_ Tefi` dSV[aSUR[hV[eafabVd----- O -- O -- O



**28**

Do you assign physics homework to the <TIMSS class>?

No  
Yes  
 Fill in **one** circle only: -----○-----○

If **No**, please go to question **32**

**31**

How often do you assign the following kinds of physics homework to the <TIMSS class>?

*Fill in **one** circle for each row*

		Never or almost never	Sometimes	Always or almost always
Sfi	6a[ Y bdaT W_ !cgWf[a` eWe	○	--○	--○
Tfi	DV&V[ Y fZWVY/fTaa]	○	--○	--○
Ufi	? W_ adl [ Y Xad_ g'SeS' V bdaUWgdV	○	--○	--○
Vfi	9SfZW[ Yl S' SKl [ Yl S' V dWad[ Y VSfS	○	--○	--○
Wfi	8[ V[ Y a` Wad_ ad\Sbb^USf[a` e aXfZWb` fWf UahW	○	--○	--○
Xfi	l ad [ Y a` bdaWfe	○	--○	--○

32

How much emphasis do you place on the following sources to monitor students' progress in physics?

Fill in **one** circle for each row

	Major emphasis	No emphasis
	Some emphasis	Little emphasis
Sfi	5'Seeda_ fVfe ^Vz fVbUZVz_ SVWad fVfTaa] fVefi-----	○ -- ○ -- ○ -- ○
Tfi	;`Xad_ S^SeeV_e_ Wf -----	○ -- ○ -- ○ -- ○
Ufi	. AfZVdVfRO-----	○ -- ○ -- ○ -- ○

33

How often does the <TIMSS class> take a physics test or examination for a grade?

Fill in **one** circle only

3f Vef a` UMS\_ a` fZ-----○

3Tagf VVvk afZVd\_ a` fZ -----○

3Tagf \$ad%f\_ V`SkVd-----○

@VVd-----○

34

A. What item formats do you typically use in your physics tests or examinations?

Fill in **one** circle only

A` k La` efdjUFW dVba` eW-----○

? aef`k La` efdjUFW dVba` eW-----○

3Tagf ZS`XLa` efdjUFW dVba` eW  
S` V ZS`XaT`VWf`hW  
^Vz\_ g`f`b`WUZa[UWf-----○

? aef`k aT`VWf`hW-----○

A` k aT`VWf`hW-----○

B. How often do your physics tests or examinations include a practical examination or laboratory problems?

Fill in **one** circle only

3↑ SkeadS^\_ aef S↑ Ske-----○

Ea\_ W\_ V\_ V\_ -----○

@VVd adS^\_ aef` VVd-----○

35

How often do you include the following types of questions in your physics tests or examinations?

Fill in **one** circle for each row

	Always or almost always	Never or almost never
	Sometimes	
Sfi	CgVef[a` eTSeW` a` ]` ai [ Y XUfeS` V La` UVfe-----	○ -- ○ -- ○
Tfi	CgVef[a` eTSeW` a` fZW Sbb[USf[a` aX]` ai` WYWS` V g` VVefS` V[ Y -----	○ -- ○ -- ○
Ufi	CgVef[a` e[ ha`h[ Y VVWab[ Y Zkba fZVVeS` V VVdY` [ Y eUWf[-U[ hVefYSf[a` e-----	○ -- ○ -- ○
Vfi	CgVef[a` edVtg[d` Y VVb`S` Sf[a` e adgef[-USf[a` e-----	○ -- ○ -- ○





