Worksheet



Basic energy audit - lighting

| Name (s):STELLA | + SIENWA P. | Date: 28 (1) 2021 |
|----------------------------|-----------------|-----------------------|
| Name of room being audited | CLASSEOOM 1 + 2 | (POSP MAIN BLILDING) |

Tools required: Lux meter

For information on using a lux meter, refer to Appendix 2: Tools and calculations.

Light globes

What types of light globes are used in this room? Circle the globe type below. Note that these are not the only style of each kind of light. Some LED downlights can look similar to the halogens light pictured here.

Globe type:



Incandescent light

No. of globes:



Compact fluorescent light

No. of globes:



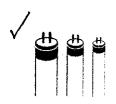
LED light

No. of globes:



Halogen light

No. of globes:



Fluorescent light tubes V

No. of globes: 16 x T8

T12s are the old fluorescent light tubes. T8s are thinner than T12s. T5s are thinner than T8s.

The thinner they are the more energy efficient they are.

√Other globe types



No. of globes:

-3

If your light globe is not listed here, draw it in the box to the right.

Try to find out what it is. LEDs are preferred as they are most efficient.

3 × 250 W MERCURY-VAPOUR PENDANT LIGHTS Light signage

Are there signs reminding people to turn off lights? Yes O No

Are the signs easy to see and read? Yes O No

Do you have any other comments?

STUDENT MADE SIGNS.

Australian Standard lighting levels

What is the light level (lux) in the middle of the room? Room (D = 360 Room (2) 230

What level of lighting is needed in this room? Australia has a list of Standards with recommended lighting levels based on the activity in the room. Circle the type of activity you would expect to see in the room you are auditing and see how the light level in the room compares to the recommended standard. Is the room too dark or too bright?

| Australian Standard (lux) | Location or task Hallways, corridors |
|---------------------------|--|
| 80 | Change rooms, storage rooms |
| 160 | Areas for occasional reading of printed materials e.g. entrance hall |
| 240 | Food preparation areas, counters for transactions |
| (320) | Classrooms with desks, offices |
| 400 | Classrooms with specialist activities e.g. fine woodwork |
| 600 | Libraries and areas for proofreading, fine painting |
| 1200 | Graphic art inspections |
| 1600 | Watchmaking and fine jewellery making |

How does the light level in your room compare to the Australian Standard?

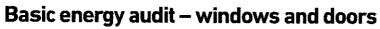
Worksheet Basic energy audit – heating and cooling

| Name (s): S | TELLA + SIEMMA P. | | Date: 78(7) | 21 |
|--|---------------------------------------|------------------------------|---|-----------|
| Name of room bei | | 1 + 2 | MAIN BULLDING | (Prix) |
| Tools required: Inf | rared thermometer | | | |
| For information or | n using an infrared thermometer, refe | er to Appendix 2: Tool | s and calculations. | |
| Record the room t | emperature and answer the question | is below. | | |
| Room tempe | rature | | | |
| The RSS guide for | temperature settings for optimum in | door thermal comfor | t are: | |
| > Winter: 18-20°C | , | | | |
| > Summer: 24-27 | . ₀C | 0 1 | 12 | |
| | | 1.0 | 19°C | |
| What is the tempe | rature of the room in degrees Celsius | ; (°C)? <mark>/%</mark> _ °C | | |
| low does the roor | m feel (thermal comfort)? | cold Okay | Too hot | |
| Seasons | | | | |
| What season is it? | (tick and) | | | |
| ************************************** | (tick one) | | | |
| 414/4 | | | • | |
| ३ ₩\$ | Winter | | l groups have their own seasonal they live, with 6 to 8 seasons each | |
| 小本作 | لــــا | | aditional Owners where you live ar | |
| | | Tradition: | al Owners of my region | |
| | | | · · · | |
| 59 | · | Nui | 'undjeri | |
| 130 | Spring | | | |
| Ye | Spring | What Abo | riginal season is it? | |
| | | | - | - 11 N |
| | | vbu | 1-July = Warir yest = Guling. | ia, wombo |
| | | Auo | 45t = Gulina | Oscibial |
| | <u></u> | |) 4411191 | Orenia |
| | Summer | | | |
| | | | | |
| | | | | |
| | | | | |
| M | | | | |
| | Autumn | | | |

| Heating and cooling a | appliances in the | |
|--|------------------------------|--|
| Does this room have air conditioners (AC)? Does this room have heaters? | | Yes O No How many (Tally) each |
| | | Yes O No How many (Tally) each |
| What temperature ar | e appliances set | at? |
| Heating and cooling appliances | AC or heater (select one) | Location Set temp (°C) |
| Unit 1 | O AC O heater | Heater & Cooler no temperature reading |
| Unit 2 | O AC O heater | |
| Unit 3 | ○ AC ○ heater | |
| Unit 4 | ○ AC ○ heater | |
| Unit 5 | O AC O heater | |
| Unit 6 | O AC O heater | |
| Unit 7 | ○ AC ○ heater | |
| Unit 8 | ○ AC ○ heater | |
| Heating and cooling Do you have signs reminding | | conditioners and heaters? |
| | | |
| Do you have signs showing o | correct temperatures fo | or air conditioners and heaters? |

What other observations did you make?

Worksheet



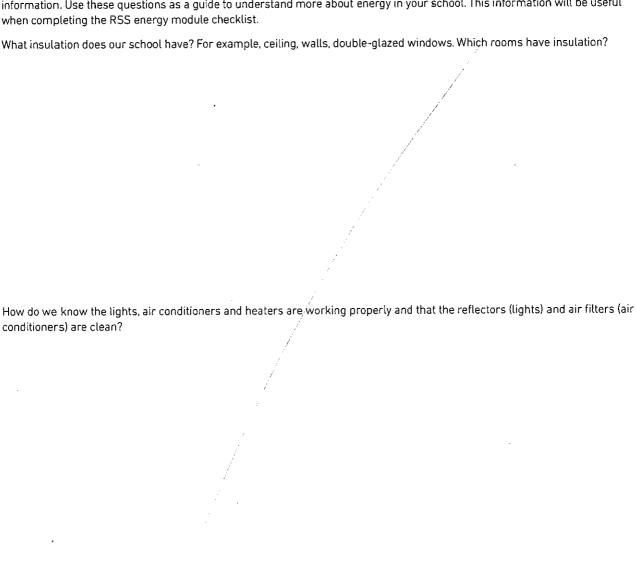
| Name of room being audited | MAN BUIDING | (petr) |
|--|----------------------------|------------|
| Tools required: Paper strips | | |
| Assessing windows and doors for energy efficiency | | |
| Complete the table below. | 0 | |
| What direction are the windows in the room facing? (Note: Most north and west-facing windows need shading or shelter) | North West () Sout | East Rm! |
| Are there any curtains or blinds on the windows? | | Yes No |
| Are the curtains or blinds open and windows clear of artworks, etc. to let in nat | ural light? | ○ Yes ②∕Ño |
| Do the curtains or blinds work? (Do they reduce sunlight? Do they keep the hea | it or cold in the room?) | O√Yes ○ No |
| Are there trees or an awning outside the window? | | O Yes O√No |
| Can windows be opened to allow natural airflow or cross-ventilation? | | Yes O No |
| s there any draughtproofing on the doors? | | Yes O No |
| Test the windows and doors for leaks or draughts (use a strip of paper or feath | er to detect air movement) | |
| List the ones that leak. | | |
| NIL | | |

List three actions in this room that will save energy at your school:

| 1 _ | REMOVE A | ATWOUX 9 | ROM WIN | 190Ws/ | BLINDS | - Rosm | <u>()</u> |
|-----|----------|----------|----------|---------|--------|---------|-------------|
| 2 _ | UPGRADE | HEATER + | Cooler 1 | TO DUAL | 4111 | SHOWING | TEMPERATURE |
| 3 _ | INSTAL | BUNOS 10 | Room | (D) | | | |

Basic energy audit – discussion with relevant stakeholders

Organise to meet with (or invite to your class) your principal, business manager, IT person and maintenance team to gather more information. Use these questions as a guide to understand more about energy in your school. This information will be useful



Do our tea/coffee and hot water systems boil water 24 hours a day or do they have timers? If we have timers, what times are they programmed for?

Worksheet

Basic energy audit - lighting

Name (s):

Name of room being audited

CUSSROOMS

mand BLD

Tools required: Lux meter

For information on using a lux meter, refer to Appendix 2: Tools and calculations.

Light globes

What types of light globes are used in this room? Circle the globe type below. Note that these are not the only style of each kind of light. Some LED downlights can look similar to the halogens light pictured here.

Globe type:



Incandescent light

No. of globes:



Compact fluorescent light

No. of globes:



LED light

No. of globes:



Halogen light

No. of globes:



Fluorescent light tubes

No. of globes:

16 x T8

T12s are the old fluorescent light tubes. T8s are thinner than T12s. T5s are thinner than T8s.

The thinner they are the more energy efficient they are.

Other globe types



No. of globes:

If your light globe is not listed here, draw it in the box to the right.

Try to find out what it is. LEDs are preferred as they are most efficient.

3 × 250 W MERCHAY VARSUR

| Lig | ht | SIG | na | ae |
|-----|----|-----|----|----|
| | | | | 3- |

Are there signs reminding people to turn off lights?

✓ Yes

○ No

Are the signs easy to see and read? Yes O No

Do you have any other comments?

Australian Standard lighting levels

What is the light level (lux) in the middle of the room? 450 - Rm 7 330 - Rm 9

What level of lighting is needed in this room? Australia has a list of Standards with recommended lighting levels based on the activity in the room. Circle the type of activity you would expect to see in the room you are auditing and see how the light level in the room compares to the recommended standard. Is the room too dark or too bright?

| Australian Standard (lux) | Location or task | |
|------------------------------|--|--|
| 40 | Hallways, corridors | |
| 80 | Change rooms, storage rooms | |
| 160 | Areas for occasional reading of printed materials e.g. entrance hall | |
| 240 | Food preparation areas, counters for transactions | |
| 320 | Classrooms with desks, offices | |
| 400 | Classrooms with specialist activities e.g. fine woodwork | |
| 600 | Libraries and areas for proofreading, fine painting | |
| 1200 Graphic art inspections | | |
| 1600 | Watchmaking and fine jewellery making | |

How does the light level in your room compare to the Australian Standard?

HIGHER THAN STANDARD.

ROOM 7 MORE DIRECT SUNLIGHT?

Heating and cooling appliances in the room Does this room have air conditioners (AC)? Yes O No How many (Tally) Yes O No How many (Tally)

What temperature are appliances set at?

| Heating and cooling appliances | AC or heater (select one) | Location | Set temp (°C) |
|--------------------------------|---------------------------|-----------|------------------|
| Unit 1 | O AC heater | 22°C Rm7. | 22°C |
| Unit 2 | O AC O heater | 20°C Rm9 | 20°C |
| Unit 3 | ○ AC ○ heater | | |
| Unit 4 | O AC O heater | | |
| Unit 5 | O AC O heater | | |
| Unit 6 | ○ AC ○ heater | | |
| Unit 7 | O AC O heater | | |
| Unit 8 | O AC O heater | | |

Heating and cooling signage

Do you have signs reminding people to turn off air conditioners and heaters?

Do you have signs showing correct temperatures for air conditioners and heaters?

Yes O No

What other observations did you make?

Basic energy audit – windows and doors

| A STATE OF THE PROPERTY OF THE | | |
|--|--------------|-------------|
| Name (s): Date: | 2817 | 121 |
| Name of room being audited | ine sl | 6) |
| Tools required: Paper strips | | |
| Assessing windows and doors for energy efficiency | , | |
| Complete the table below. | & Ra | |
| What direction are the windows in the room facing? (Note: Most north and west-facing windows need shading or shelter) | orth O Ea | ast |
| Sc | outh R | 7. R9 |
| Are there any curtains or blinds on the windows? | O Yes | No Y |
| Are the curtains or blinds open and windows clear of artworks, etc. to let in natural light? | Yes | O No Y |
| Do the curtains or blinds work? (Do they reduce sunlight? Do they keep the heat or cold in the room?) | N/AO Yes | O No Y |
| Are there trees or an awning outside the window? | Yes | O No Same Y |
| Can windows be opened to allow natural airflow or cross-ventilation? | Yes | O No Some Y |
| Is there any draughtproofing on the doors? | Yes | |

Test the windows and doors for leaks or draughts (use a strip of paper or feather to detect air movement).

List the ones that leak.

NIL

List three actions in this room that will save energy at your school:

1 INSTAN BLINDS IN ROOM 7 2 DELAMS SOME LIGHTS IN ROOM 7 3 RIGHIND ROOM 7 - TEMP MAX 20°C (HELAMER)

Basic energy audit – discussion with relevant stakeholders

Organise to meet with (or invite to your class) your principal, business manager, IT person and maintenance team to gather more information. Use these questions as a guide to understand more about energy in your school. This information will be useful when completing the RSS energy module checklist.

| when completing the RSS energy module checklist. | |
|---|--|
| What insulation does our school have? For example, ceiling, walls, double-glazed windows. Which rooms have insulation? | |
| | |
| How do we know the lights, air conditioners and heaters are working properly and that the reflectors (lights) and air filters (air conditioners) are clean? | |
| | |
| Do our tea/coffee and hot water systems boil water 24 hours a day or do they have timers? If we have timers, what times are they programmed for? | |
| | |

Worksheet



Basic energy audit - lighting

| Name (s): ABBI M | + SIERMA T. | Date: 28 7 21 |
|----------------------------|-------------|------------------------------|
| Name of room being audited | Room 13+14 | CUXSROOMS BUILDING Z (4K3/4) |

Tools required: Lux meter

For information on using a lux meter, refer to Appendix 2: Tools and calculations.

Light globes

What types of light globes are used in this room? Circle the globe type below. Note that these are not the only style of each kind of light. Some LED downlights can look similar to the halogens light pictured here.

Globe type:



Incandescent light

No. of globes:



Compact fluorescent light

No. of globes:



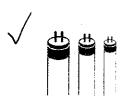
LED light

No. of globes:



Halogen light

No. of globes:



Fluorescent light tubes

No. of globes: 16 x T

T12s are the old fluorescent light tubes. T8s are thinner than T12s. T5s are thinner than T8s.

The thinner they are the more energy efficient they are.

Other globe types

NIL

No. of globes:

If your light globe is not listed here, draw it in the box to the right.

Try to find out what it is. LEDs are preferred as they are most efficient.

Light signage

Are there signs reminding people to turn off lights? Yes O No

Are the signs easy to see and read? Yes O No

Do you have any other comments?

Australian Standard lighting levels

What is the light level (lux) in the middle of the room? Room 13:320 Room 14 = 420

What level of lighting is needed in this room? Australia has a list of Standards with recommended lighting levels based on the activity in the room. Circle the type of activity you would expect to see in the room you are auditing and see how the light level in the room compares to the recommended standard. Is the room too dark or too bright?

| Australian Standard (lux) | Location or task Hallways, corridors |
|---------------------------|--|
| 80 | Change rooms, storage rooms |
| 160 | Areas for occasional reading of printed materials e.g. entrance hall |
| 240 | Food preparation areas, counters for transactions |
| (320) | Classrooms with desks, offices |
| 400 | Classrooms with specialist activities e.g. fine woodwork |
| 600 | Libraries and areas for proofreading, fine painting |
| 1200 | Graphic art inspections |
| 1600 | Watchmaking and fine jewellery making |

How does the light level in your room compare to the Australian Standard?

Room 14 - 420 - HIGHER - MORE DIRECT SUNLIGHT?

Worksheet Basic energy audit – heating and cooling

| Name (s): | 16B) M + SIEN | VA T Date: 28/7/21 +14 CUSSROOMS BHILDING 2 (4/23/4) |
|--|---------------------------------|--|
| Name of room being | gaudited Room 13 | +14 CUSSROOMS BUILDING 2 (4R 3/4) |
| Tools required: Infra | red thermometer | , |
| For information on t | using an infrared thermometer, | refer to Appendix 2: Tools and calculations. |
| Record the room ter | mperature and answer the que | stions below. |
| Room tempera | ature | |
| The RSS guide for to | emperature settings for optimu | ım indoor thermat comfort are: |
| > Winter: 18-20°C | | |
| > Summer: 24-27°0 | | R13 R14 |
| | | 0 |
| | ature of the room in degrees Ce | isius (C): C |
| How does the room | feel (thermal comfort)? | Too cold Okay Too hot |
| Seasons | | |
| What season is it? (t | ick one) | |
| | | |
| 業 | Winter | Aboriginal groups have their own seasonal cycle depending on where they live, with 6 to 8 seasons each year. Find out who are the Traditional Owners where you live and what season it is. |
| | | Traditional Owners of my region |
| | | |
| 58 | | Wurundjeri |
| 7 | Spring | |
| | | What Aboriginal season is it? |
| annean ann an ann an an an an an an an an an | | April-July = Waring, Wombo August = Guling, Orchid |
| | | |
| | | August = Guling, Orchid |
| | Summer | |
| * | | |
| | | |
| \mathcal{O} | Autumn | |

| Heating and cooling a | ppliances in the | room | | | | |
|--|------------------------------|----------------|-------------------|--------------|---------|------------------|
| Does this room have air condi | tioners (AC)? | | No How many | | | |
| Does this room have heaters? | | Yes C |) No How many | (Tally) (ec | - | |
| What temperature are | e appliances set | at? | | | | |
| Heating and cooling appliances | AC or heater (select one) | Locatio | on . | | | Set temp (°C) |
| Unit 1 | O AC heater | 1800 | Rm 13 | 20°C | Room | 14 |
| Unit 2 | | | | | | ,, |
| Unit 3 | O AC O heater | | | | | |
| Unit 4 | O AC O heater | | | | | |
| Unit 5 | ○ AC ○ heater | | | | | |
| Unit 6 | O AC O heater | | | | | |
| Unit 7 | ○ AC ○ heater | | | | | |
| Unit 8 | O AC O heater | | | | | |
| Heating and cooling s Do you have signs reminding | | onditioners: | and heaters? | ⊗ Yes | s () No | |
| Do you have signs showing co | orrect temperatures fo | r air conditic | ners and heaters? | Yes | o No | |

What other observations did you make?

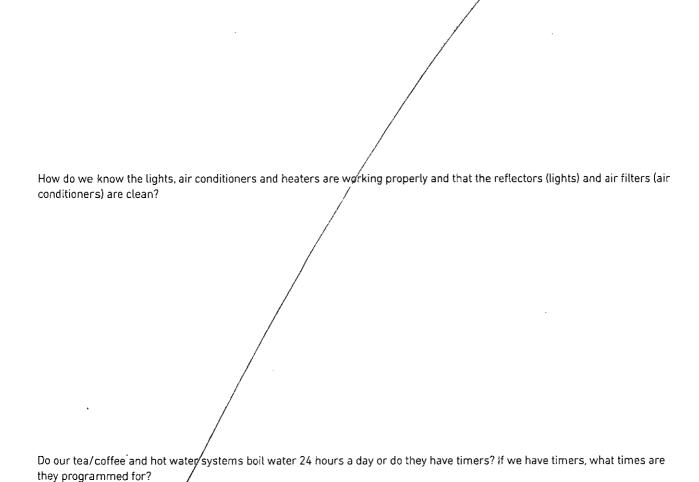
Basic energy audit – windows and doors

| Name (s): ABBI M + SIENNA T. | Date: | 28/1/2 | 1 |
|--|----------------|-----------------|---------------------------------------|
| Name of room being audited Room 13 +14 CMSSROOMS | 3410 | 012 2 | (yr. 314) |
| Tools required: Paper strips | | | |
| Assessing windows and doors for energy efficiency | | | |
| Complete the table below. | | 0 | |
| What direction are the windows in the room facing? (Note: Most north and west-facing windows need shading or shelter) | West 🔾 | North South | East |
| Are there any curtains or blinds on the windows? | | O Yes | O No |
| Are the curtains or blinds open and windows clear of artworks, etc. to let in natural lig | jht? | ⊙ Yes | O No |
| Do the curtains or blinds work? (Do they reduce sunlight? Do they keep the heat or co | ld in the room | 1?) Y es | O No |
| Are there trees or an awning outside the window? | | ○ Yes | 9/No |
| Can windows be opened to allow natural airflow or cross-ventilation? | | Yes | O No |
| Is there any draughtproofing on the doors? (Au IJTANM) | | ○ Yes | 0 No N/1. |
| Test the windows and doors for leaks or draughts (use a strip of paper or feather to d | etect air mov | ement). | interne |
| NIL | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| List three actions in this room that will save energy at your so | :hool: | | |
| 1 DELAMP SOME LIGHTS IN ROOM 14- LUX 1 | | HANI CTAI | VD.ALD |
| | 141165 1 | <u> </u> | |
| 2 | | | · · · · · · · · · · · · · · · · · · · |
| 3 | | | |

Basic energy audit - discussion with relevant stakeholders

Organise to meet with (or invite to your class) your principal, business manager, IT person and maintenance team to gather more information. Use these questions as a guide to understand more about energy in your school. This information will be useful when completing the RSS energy module checklist.

What insulation does our school have? For example, ceiling, walls, double-glazed windows. Which rooms have insulation?



Basic energy audit - lighting

CLATRE

Name of room being audited

+ 22

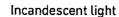
Tools required: Lux meter

For information on using a lux meter, refer to Appendix 2: Tools and calculations.

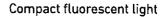
Light globes

What types of light globes are used in this room? Circle the globe type below. Note that these are not the only style of each kind of light. Some LED downlights can look similar to the halogens light pictured here.

Globe type:



No. of globes:



No. of globes:



No. of globes:



No. of globes:



Fluorescent light tubes

No. of globes:

T12s are the old fluorescent light tubes. T8s are thinner than T12s. T5s are thinner than T8s.

The thinner they are the more energy efficient they are.

Other globe types

NIL

No. of globes:

If your light globe is not listed here, draw it in the box to the right.

Try to find out what it is. LEDs are preferred as they are most efficient.

| L | .ia | ht | sig | na | ae |
|---|-----|----|-----|----|----|
| _ | | | | | |

Are there signs reminding people to turn off lights? Yes O No

Are the signs easy to see and read? Yes O No

Do you have any other comments?

Australian Standard lighting levels

What is the light level (lux) in the middle of the room? $\frac{1}{20}$ $\frac{1}{20}$ $\frac{1}{20}$ $\frac{1}{20}$

What level of lighting is needed in this room? Australia has a list of Standards with recommended lighting levels based on the activity in the room. Circle the type of activity you would expect to see in the room you are auditing and see how the light level in the room compares to the recommended standard. Is the room too dark or too bright?

| • | |
|---------------------------|--|
| Australian Standard (lux) | Location or task |
| 40 | Hallways, corridors |
| 80 | Change rooms, storage rooms |
| 160 | Areas for occasional reading of printed materials e.g. entrance hall |
| 240_ | Food preparation areas, counters for transactions |
| 320 | Classrooms with desks, offices |
| 400 | Classrooms with specialist activities e.g. fine woodwork |
| 600 | Libraries and areas for proofreading, fine painting |
| 1200 | Graphic art inspections |
| 1600 | Watchmaking and fine jewellery making |

How does the light level in your room compare to the Australian Standard?

LKATIS LOWER - BSTER DISPLAYS BLOCK LIGHT.

Worksheet Basic energy audit – heating and cooling

| Name (s): | CLAME | + CORO | ıε | | | ~ | Date: | | 28/7/21 |
|---|----------------|-----------------|--------------|-------|---|----------|--------------|-----------|--|
| Name of room being | audited | Room | 21 | + | 22 | R | C743L2 | coss | 28/1/21 Rooms |
| Tools required: Infrar | ed thermome | eter | | | | | | | |
| For information on us | sing an infrar | ed thermome | er, refer to | Арре | endix 2: To | ols and | calculation | 5. | |
| Record the room tem | perature and | answer the q | uestions be | elow. | | | | | |
| Room temperat | ture | | | | | | | | |
| The RSS guide for ter | mperature se | ttings for opti | mum indoo | r the | rmal com | fort are | : | | |
| Winter: 18–20°CSummer: 24–27°C | | | | | RZI | | RM 2 | 2 | |
| What is the temperat | ure of the roo | om in degrees | Celsius (°C |)? | <u>19 </u> | 2 | 20° | <u>_</u> | |
| How does the room for | eel (thermal | comfort)? | Too cold | | Okay | T | oo hot | | |
| Seasons | 4 | | | | | | | | |
| What season is it? (tid | ck one) | | | | | | | | |
| 業 | U w | inter | | | on whe | ere they | live, with 6 | to 8 seas | easonal cycle depending ons each year. Find out who ou live and what season it is. |
| | | | | | Traditio | onal Ow | ners of my | region | |
| | | | | | | Wul | CUND: | iei | |
| | S. | oring | | | | | | | |
| | | | | | | - | al season is | | |
| | | | | | | APRI | L - J41 | .4 = | WARING, WOMEN |
| | | | | | | Au | 4457 | 7 | GULING, ORCHAN |
| | S | ummer | | | | | | | |

| Heating and cooling | appliances in the | | | , | |
|--------------------------------|---|---------------------------------------|--------------|--------------|------------------|
| Does this room have air cond | om have air conditioners (AC)? Yes O No How many (Tally) 1 each | | | | |
| Does this room have heaters | ? | Yes O No | How many (Ta | ally) 1 each | |
| What temperature a | re appliances set | at? | | | |
| Heating and cooling appliances | AC or heater (select one) | Location | | | Set temp (°C) |
| Unit 1 | AC heater | Rm 21 | 20°C | Dual Unit | 25° < (F) |
| Unit 2 | Ø AC Ø heater | Rm 22 | 3°C | Dual Unit | 20°C (F |
| Unit 3 | O AC O heater | · · · · · · · · · · · · · · · · · · · | | , <u></u> | |
| Unit 4 | ○ AC ○ heater | | | | |
| Unit 5 | ○ AC ○ heater | | | | |
| Unit 6 | ○ AC ○ heater | | | | |
| Unit 7 | ○ AC ○ heater | | | | |
| Unit 8 | ○ AC ○ heater | | | | |
| Heating and cooling | eignage | | | | |
| Do you have signs reminding | | onditioners and h | eaters? | Yes O No | |
| | | | | O Yes O No | |
| Do you have signs showing o | correct temperatures fo | r air conditioners | ano neaters? | ⊕ res ⊖ ino | |
| What other observat | tions did you mak | æ? | | | |

Basic energy audit - windows and doors

| Name (s): | CLANCE | . + | COM | DIE | | | | | Date | e: | 28 | 17/2 | 1 | |
|---|------------------|----------|--------------------|-----------|---------|-------------|----------|-------------|--------|----------|----------------|-------|------|-------------|
| Name of room bei | ing audited | R | ∞ | 21 | 4 | 22 | F | BRTASI | i | CINSS | Room | 5 | | |
| Tools required: Pa | per strips | <u> </u> | | <u> </u> | | | | <u> </u> | | | | | • | |
| Assessing w | indows and | l doo | rs for | ener | gy e | efficien | су | | | | | | | |
| Complete the table | e below. | | | | | | | | | | ⊗′ | | | |
| What direction are (Note: Most north | | | | - | ding o | r shelter) | | | ٧ | Vest (| North South | , O E | ast | |
| Are there any curt | ains or blinds o | n the v | window | 5? | | | | | | | | Yes | O No | |
| Are the curtains o | r blinds open aı | nd win | dows cl | lear of a | artwo | rks, etc. t | o let in | natural lig | ht? | | | Yes | O No | Some a |
| Do the curtains or | blinds work? ([| Do they | reduce | e sunlig | ht? D | o they ke | ep the | heat or col | d in t | the roon | n?) | Yes | O No | |
| Are there trees or | an awning outs | side the | e windo | iw? | | | | | | | | Yes | ⊙ No | |
| Can windows be o | pened to allow | natura | ı l airflov | w or cr | oss-ve | entilation | ? | | | | | Yes | O No | |
| Is there any draug | htproofing on t | he,doo | rs? | | | | | | | | | O Yes | ⊗ No | |
| Test the windows | and doors for le | eaks or | draugl | hts (use | e a str | ip of pap | er or fe | ather to de | etect | air mov | ement). | | | |
| List the ones that | leak. | | | | | | | | | | | | | |
| External | door | | | | | | | | | | | | | |
| List three act | | | | | | | | | | | | | | |
| 1 REMOVE | 2 pm h | NUC | Flo | om | WI | んのひん | ٠, | B100 | 4() | NG L | 1611 | | | |
| 2 FIT | DR ALGHTA | Rool | 526 | B | 6 | シャイロ | nna | r D | 201 | 25 | ··, | | | |
| 3 REM | | | | | | | | | | | | | | |

Basic energy audit – discussion with relevant stakeholders

Organise to meet with (or invite to your class) your principal, business manager, IT person and maintenance team to gather more information. Use these questions as a guide to understand more about energy in your school. This information will be useful when completing the RSS energy module checklist.

What insulation does our school have? For example, ceiling, walls, double-glazed windows. Which rooms have insulation?

How do we know the lights, air conditioners and heaters are working properly and that the reflectors (lights) and air filters (air conditioners) are clean?

Do our tea/coffee and hot water systems boil wa/er 24 hours a day or do they have timers? If we have timers, what times are they programmed for?

Worksheet



Basic energy audit - lighting

| Name (s): / Augus | 7m + | DEALON | | _ Date: | 281 | 114 |
|----------------------------|------|-----------|---------|---------|------|------------|
| Name of room being audited | Ross | 1 23 + 24 | POSTAGE | cosse | om s | (4EAR 112) |

Tools required: Lux meter

For information on using a lux meter, refer to Appendix 2: Tools and calculations.

Light globes

What types of light globes are used in this room? Circle the globe type below. Note that these are not the only style of each kind of light. Some LED downlights can look similar to the halogens light pictured here.

Globe type:



Incandescent light

No. of globes:



Compact fluorescent light

No. of globes:



LED light

No. of globes:



Halogen light

No. of globes:

Fluorescent light tubes

No. of globes:

12 × T8

T12s are the old fluorescent light tubes. T8s are thinner than T12s. T5s are thinner than T8s.

The thinner they are the more energy efficient they are.

Other globe types

NIL

No. of globes:

If your light globe is not listed here, draw it in the box to the right.

Try to find out what it is. LEDs are preferred as they are most efficient.

Light signage

Are there signs reminding people to turn off lights? Yes O No Are the signs easy to see and read? Yes O No

Do you have any other comments?

Australian Standard lighting levels

What is the light level (lux) in the middle of the room? $\frac{Rm}{24} = 200$ $\frac{Rm}{23} = 210$

What level of lighting is needed in this room? Australia has a list of Standards with recommended lighting levels based on the activity in the room. Circle the type of activity you would expect to see in the room you are auditing and see how the light level in the room compares to the recommended standard. Is the room too dark or too bright?

| Australian Standard (lux) | Location or task Hallways, corridors |
|---------------------------|--|
| 80 | Change rooms, storage rooms |
| 160 | Areas for occasional reading of printed materials e.g. entrance hall |
| 240 | Food preparation areas, counters for transactions |
| 320 | Classrooms with desks, offices |
| 400 | Classrooms with specialist activities e.g. fine woodwork |
| 600 | Libraries and areas for proofreading, fine painting |
| 1200 | Graphic art inspections |
| 1600 | Watchmaking and fine jewellery making |

How does the light level in your room compare to the Australian Standard?

LOW LIGHT - DISPLM POSTICS IN WAR UZ LIGHT

Worksheet Basic energy audit – heating and cooling

| Name (s): | VAUGHAN | + [| كتمد | ہر | | Date: 28/7 CUSSROOMS | 121 |
|--|--------------------|----------|-------------|----------------|---------------------------------------|----------------------------|--|
| Name of room be | ing audited | R | 23 | + 24 | CORTABIN | CUSSROOMS | 42112 |
| Tools required: In | | ter | | | | | |
| For information o | n using an infrar | ed ther | mometer | r, refer to Ap | pendix 2: Tools and ca | lculations. | |
| Record the room | temperature and | answe | r the que | stions belov | v. | | |
| Room tempe | erature | | | | | | |
| The RSS guide fo | r temperature se | ttings f | or optimo | um indoor th | ermal comfort are: | | |
| Winter: 18–20°0Summer: 24–2 | | | | | | | |
| What is the temp | erature of the roo | m in de | egrees Ce | elsius (°C)? _ | |) | |
| How does the roo | m feel (thermal c | omfort | :)? | Too cold | Okay Too | hot | |
| Seasons | | | | | | | |
| What season is it | ? (tick one) | | | | | | |
| | | inter | | | on where they liv | il Owners where you living | nal cycle depending each year. Find out who e and what season it is. |
| | ° ∑ Sι | ımmer | | | What Aboriginal s April - Augus | | ring, Womb g, Orchid |
| | Au | ıtumn | | | | | |

| Heating and co | oling applian | ces in the | room | | | | | | |
|--|-------------------------|----------------------------------|-----------------|---------|------|--|---------|----------------|--------|
| Does this room have air conditioners (AC)? Does this room have heaters? | | ØYes ○ No How many (Tally) 1 e ~ | | | | | | | |
| | | Yes O | No Ho | | | | | | |
| What temperate | ure are appli | ances set | at? | | | | | | |
| Heating and coo | oling AC or l (selec | | Location | | | | | Set te (°C) | mp |
| Unit 1 | ⊘ AC | heater | 19° | | Dual | Unit | Pm. | 24 | 19°C |
| Unit 2 | Ø′AC | heater | 220 | C | Dual | Unit | Rm | 23 | . 22°C |
| Unit 3 | O AC | O heater | | | | | | | |
| Unit 4 | O AC | ○ heater | · | | | · · · · · · · · · · · · · · · · · · · | · · · · | | |
| Unit 5 | O AC | ○ heater | | | | | | | |
| Unit 6 | O AC | ○ heater | | | | | | | |
| Unit 7 | O AC | ○ heater | | | | ······································ | | | |
| Unit 8 | O AC | O heater | | | | | | | |
| Heating and co | | | conditioners an | d heate | rs? | ⊗ yes C |) No | | |
| Do you have signs sh | | | | | | O Yes C |) No | | |

What other observations did you make?

Basic energy audit – windows and doors

| Name (s): YOUGHAN + | + DEA 60, | ر | | | Date: | 18/7/21 | | | |
|---|-----------------|-----------|---------------------|---------------|-------------------------|------------|--------|----|---------|
| Name of room being audited | Room | 23 | + | 24 | PNIABLE | CUSSROO | 45 | 4 | 112 |
| Tools required: Paper strips | | | | | | | | | |
| Assessing windows and do | ors for en | ergy (| effici | iency | | | | | |
| Complete the table below. | | | | | | 8 | | | |
| What direction are the windows in the (Note: Most north and west-facing win | - | | or shel | lter) | West (| North C |) East | | |
| | | | | | | South | | | |
| Are there any curtains or blinds on the | e windows? | | | | | 94 | es 🔾 | No | Some No |
| Are the curtains or blinds open and w | rindows clear | of artwo | orks, e | tc. to let in | natural light? | Ø1 | es O | No | Some |
| Do the curtains or blinds work? (Do th | ney reduce sur | nlight? [| o they | y keep the | heat or cold in the roo | om?) 🐼 | es 🔾 | No | |
| Are there trees or an awning outside | the window? | | | | | ⊘ ∕ | es 🔾 | No | 50me. |
| Can windows be opened to allow natu | ıral airflow or | cross-v | entilat | tion? | | Ø1 | es O | No | |
| Is there any draughtproofing on the d | oors? | | | | | % | es O | No | |
| Test the windows and doors for leaks | or draughts (| use a st | rip of _I | paper or f | eather to detect air mo | ovement). | | | |
| List the ones that leak. External 1xxxxx | | | | | | | | | |
| munitive ettal Dome | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | • | | | |
| | | | | | | | | | |

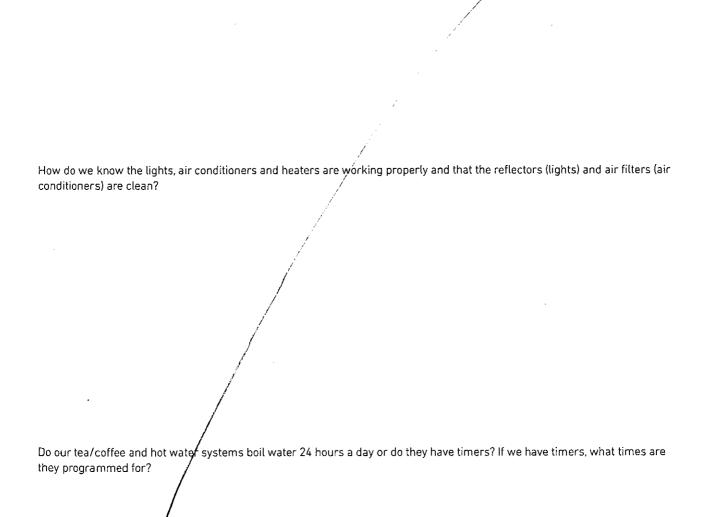
List three actions in this room that will save energy at your school:

| 1 _ | FIT DRMGHTARDANG TO EXTERNAL DOORS |
|-----|--|
| 2 _ | MOVE DISPLAY BSTERS BLOCKING LIGHT. |
| 3 | ROOM 23 NEEDS TO LOWER SET TEMP. ON HEATER |

Basic energy audit - discussion with relevant stakeholders

Organise to meet with (or invite to your class) your principal, business manager, IT person and maintenance team to gather more information. Use these questions as a guide to understand more about energy in your school. This information will be useful when completing the RSS energy module checklist.

What insulation does our school have? For example, ceiling, walls, double-glazed windows. Which rooms have insulation?



Basic energy audit - lighting

| Name (s): STELLA + SIENNA P. Date: | 29/7/21 |
|--|---|
| Name of room being audited MAIN ADMINISTRATION OFFICE | e de la companya de La companya de la co |
| Tools required: Lux meter | |
| For information on using a lux meter, refer to Appendix 2: Tools and calculations. | |

Light globes

What types of light globes are used in this room? Circle the globe type below. Note that these are not the only style of each kind of light. Some LED downlights can look similar to the halogens light pictured here.

Globe type:



Incandescent light

No. of globes:



Compact fluorescent light

No. of globes:



LED light

No. of globes:



Halogen light

No. of globes:



Fluorescent light tubes

No. of globes:

T8 X

T12s are the old fluorescent light tubes. T8s are thinner than T12s. T5s are thinner than T8s.

The thinner they are the more energy efficient they are.

| Other | alobe | types |
|-------|-------|-------|
| | | |

No. of globes:

If your light globe is not listed here, draw it in the box to the right.

Try to find out what it is. LEDs are preferred as they are most efficient.

| Liq | ıht | sig | na | ge |
|-----|-----|-----|----|----|
| | | | | |

| Are there signs reminding people to turn off lights? | O Yes | O No |
|--|-------|------|
| Are the signs easy to see and read? O Yes O No | AM o | |

Do you have any other comments?

Australian Standard lighting levels

What is the light level (lux) in the middle of the room?

420

What level of lighting is needed in this room? Australia has a list of Standards with recommended lighting levels based on the activity in the room. Circle the type of activity you would expect to see in the room you are auditing and see how the light level in the room compares to the recommended standard. Is the room too dark or too bright?

| Australian Standard (lux) 40 | Location or task Hallways, corridors |
|------------------------------|--|
| 80 | Change rooms, storage rooms |
| 160 | Areas for occasional reading of printed materials e.g. entrance hall |
| 240 | Food preparation areas, counters for transactions |
| 320 | Classrooms with desks, offices |
| 400 | Classrooms with specialist activities e.g. fine woodwork |
| 600 | Libraries and areas for proofreading, fine painting |
| 1200 | Graphic art inspections |
| 1600 | Watchmaking and fine jewellery making |

How does the light level in your room compare to the Australian Standard?

HICHEL THAN STANDARD.

Worksheet Basic energy audit – heating and cooling

| Name (s): | STELLA + SIEN | JA P. | Date: | 7/7/21 |
|--|--|---|-------------------------|---|
| Name of room being | audited MAN | OFFICE | and the American States | |
| Tools required: Infrai | red thermometer | | | |
| For information on u | sing an infrared thermometer, re | efer to Appendix 2: Tool | s and calculations. | |
| Record the room ten | nperature and answer the questi | ons below. | | |
| Room tempera | ture | | | |
| The RSS guide for te | mperature settings for optimum | indoor thermal comfo | rt are: | |
| Winter: 18-20°C Summer: 24-27°C | | | | |
| | ture of the room in degrees Celsi feel (thermal comfort)? | ius (°C)? 20 °C po cold V Okay [| Too hot | |
| Seasons | | | ÷ | |
| What season is it? (ti | ck one) | | | |
| 業 | Winter | on where | | seasonal cycle depending sons each year. Find out who rou live and what season it is. |
| | | Tradition | al Owners of my region | |
| 06 | Spring | | URUNDJERI | |
| | | What Abo | original season is it? | |
| \ \ \ \ | | APR | 4467 = 1 4467 = 1 | WARING, WOMBAT GULING, OLCHD |
| -0- | Summer | | | |
| | Autumn | | | |

Heating and cooling appliances in the room

| Heating and co appliances | ooling AC or heater (select one) | Location Set temp (°C) |
|------------------------------|--|---------------------------|
| Unit 1 | O AC A heater | man office S (|
| Unit 2 | ○ AC ○ heater | |
| Unit 3 | ○ AC ○ heater | |
| Unit 4 | ○ AC ○ heater | |
| Unit 5 | ○ AC ○ heater | |
| Unit 6 | ○ AC ○ heater | |
| Unit 7 | ○ AC ○ heater | |
| Unit 8 | ○ AC ○ heater | |
| lo you have signs | cooling signage reminding people to turn off air s showing correct temperatures fo | |

Basic energy audit – windows and doors

| Name (s): | STELLA | + SIEN | VA P. | Da | nte: 7 | 17/21 | | |
|--|-------------------|------------------|------------------------|----------------|---------------|-----------------------|------|------------|
| Name of room being audited | | MAN OFF | 102 | | | | | |
| Tools required: Paper strips | | | | | | | | |
| Assessing windows | and doors (| or energy | efficiency | | | | | |
| Complete the table below. | | | • | | | O | | |
| What direction are the windo Note: Most north and west- | | | or shelter) | | West (| lorth O Ea O South | ıst | |
| Are there any curtains or bli | nds on the wind | ows? | INTERNA | MA | | ○ Yes | ○ No | |
| Are the curtains or blinds op | en and window | s clear of artwo | orks, etc. to let in n | atural light? | Alk | ○ Yes | O No | |
| Do the curtains or blinds wo | rk? (Do they red | uce sunlight? [| o they keep the h | eat or cold in | the room?) | ○ Yes | O No | N IA |
| Are there trees or an awning | g outside the wir | ndow? | | | | ○ Yes | O No | Alh |
| Can windows be opened to a | allow natural air | flow or cross-v | entilation? | • | | ○ Yes | O No | N JA |
| s there any draughtproofing | on the doors? | | | | | ○ Yes | O No | MIA |
| Test the windows and doors | for leaks or dra | ughts (use a st | rip of paper or fea | ther to detec | t air movem | ent). | | |
| ist the ones that leak. | | | | | | | | |
| | | | | | | | | |
| List three actions in | REQUIR | ii D | | | | | | |
| 1 SSIBLE | | | | | | | 170 | <u>~~~</u> |



Basic energy audit - lighting

| Name (s): Robyn | +KEW | | Date: _ | 30/1/21 | |
|-----------------------------------|------------------------------|-------------------------|---------|-----------------------|--|
| Name of room being audited | STAFF ROOM | | | and the second second | |
| Tools required: Lux meter | | • | | | |
| For information on using a lux me | eter, refer to Appendix 2: 1 | Fools and calculations. | | | |

Light globes

What types of light globes are used in this room? Circle the globe type below. Note that these are not the only style of each kind of light. Some LED downlights can look similar to the halogens light pictured here.

Globe type:



Incandescent light

No. of globes:



Compact fluorescent light

No. of globes:



LED light

No. of globes:



Halogen light

No. of globes:



Fluorescent light tubes

No. of globes: 24

T12s are the old fluorescent light tubes. T8s are thinner than T12s. T5s are thinner than T8s.

The thinner they are the more energy efficient they are.

Other globe types

No. of globes:

If your light globe is not listed here, draw it in the box to the right.

Try to find out what it is. LEDs are preferred as they are most efficient.

| <u></u> | | | |
|---------|--|------|------|



| | 10 | | sig | - | ~~ |
|---|----|---|-----|----|----|
| _ | ıч | | SIU | па | 4 |
| | | , | 3 | | - |

Do you have any other comments?

| Are there signs reminding people to | turn off lig | ghts? | Yes | O No |
|-------------------------------------|--------------|-------|-----|------|
| Are the signs easy to see and read? | Yes | O No |) | |

Australian Standard lighting levels

What is the light level (lux) in the middle of the room?

What level of lighting is needed in this room? Australia has a list of Standards with recommended lighting levels based on the activity in the room. Circle the type of activity you would expect to see in the room you are auditing and see how the light level in the room compares to the recommended standard. Is the room too dark or too bright?

| Australian Standard (lux) 40 | Location or task Hallways, corridors |
|------------------------------|--|
| 80 | Change rooms, storage rooms |
| 160 | Areas for occasional reading of printed materials e.g. entrance hall |
| 240 | Food preparation areas, counters for transactions |
| 320 | Classrooms with desks, offices |
| 400 | Classrooms with specialist activities e.g. fine woodwork |
| 600 | Libraries and areas for proofreading, fine painting |
| 1200 | Graphic art inspections |
| 1600 | Watchmaking and fine jewellery making |

How does the light level in your room compare to the Australian Standard?

. SAME AS A CURSCHOOM + PLONEY OF WATURE LIGHT.

Worksheet Basic energy audit - heating and cooling

| The RSS guide for temperature settings for optimum indoor thermal comfort are: > Winter: 18–20°C > Summer: 24–27°C What is the temperature of the room in degrees Celsius (°C)? | Name (s): | KOBYN + KELLI | · | Date: | 3017121 | • . |
|--|---|---------------------------------------|--------------------------|-----------------|-----------------|--------------|
| For information on using an infrared thermometer, refer to Appendix 2: Tools and calculations. Record the room temperature Room temperature The RSS guide for temperature settings for optimum indoor thermal comfort are: Winter: 18–20°C Summer: 24–27°C What is the temperature of the room in degrees Celsius (°C)? 18 °C How does the room feel (thermal comfort)? Too cold Vokay Too hot Seasons What season is it? (tick one) Aboriginal groups have their own seasonal cycle depending on where they live, with 6 to 8 seasons each year. Find out who are the Traditional Owners where you live and what season it is. Traditional Owners of my region What Aboriginal season is it? Afull - Muy = Warung, Warung August = Guing, Olumo | Name of room being audited | STATEROOM | No. of the second | | | |
| Record the room temperature The RSS guide for temperature settings for optimum indoor thermal comfort are: Winter: 18-20°C Summer: 24-27°C What is the temperature of the room in degrees Celsius (°C)? How does the room feel (thermal comfort)? Too cold Too hot Seasons What season is it? (tick one) Aboriginal groups have their own seasonal cycle depending on where they live, with 6 to 8 seasons each year. Find out who are the Traditional Owners where you live and what season it is. Traditional Owners of my region What Aboriginal season is it? What Aboriginal season is it? After July = Warner, women August = Guing, Olimba | Tools required: Infrared ther | rmometer | | | • | |
| Room temperature The RSS guide for temperature settings for optimum indoor thermal comfort are: Winter: 18–20°C Summer: 24–27°C What is the temperature of the room in degrees Celsius (°C)? | For information on using an | infrared thermometer, refer to Apper | ndix 2: Tools and calcul | ations. | | |
| The RSS guide for temperature settings for optimum indoor thermal comfort are: > Winter: 18–20°C > Summer: 24–27°C What is the temperature of the room in degrees Celsius (°C)? | Record the room temperature | re and answer the questions below. | | | | |
| Winter: 18–20°C Summer: 24–27°C What is the temperature of the room in degrees Celsius (°C)? | Room temperature | | | | | |
| What is the temperature of the room in degrees Celsius (°C)? How does the room feel (thermal comfort)? Too cold Too hot Seasons What season is it? (tick one) Aboriginal groups have their own seasonal cycle depending on where they live, with 6 to 8 seasons each year. Find out who are the Traditional Owners where you live and what season it is. Traditional Owners of my region What Aboriginal season is it? ABUL - MUY = WARWY, WOMEN AUGUST = GUBY, ORCHIO | The RSS guide for temperate | ure settings for optimum indoor therr | mal comfort are: | | | |
| How does the room feel (thermal comfort)? Too cold Vokay Too hot Seasons What season is it? (tick one) Aboriginal groups have their own seasonal cycle depending on where they live, with 6 to 8 seasons each year. Find out who are the Traditional Owners where you live and what season it is. Traditional Owners of my region What Aboriginal season is it? ABUL - MUY = WARMA, WOMBAN AUGUST = GUUNG, OLUMO | > Winter: 18–20°C> Summer: 24–27°C | | | | | |
| How does the room feel (thermal comfort)? Too cold Vokay Too hot Seasons What season is it? (tick one) Aboriginal groups have their own seasonal cycle depending on where they live, with 6 to 8 seasons each year. Find out who are the Traditional Owners where you live and what season it is. Traditional Owners of my region What Aboriginal season is it? ABUL - MUY = WARMA, WOMBAN AUGUST = GUUNG, OLUMO | What is the temperature of t | the room in degrees Celsius (°C)? | 8 °c | | | |
| Aboriginal groups have their own seasonal cycle depending on where they live, with 6 to 8 seasons each year. Find out who are the Traditional Owners where you live and what season it is. Traditional Owners of my region What Aboriginal season is it? APUL - JULY = WARNA, WOMBAN AUGUST = GULNG, ORCHO | | | | | | |
| Aboriginal groups have their own seasonal cycle depending on where they live, with 6 to 8 seasons each year. Find out who are the Traditional Owners where you live and what season it is. Traditional Owners of my region What Aboriginal season is it? APUL - JULY = WARNA, WOMBAN AUGUST = GULNG, ORCHO | Seasons | | | | | |
| winter on where they live, with 6 to 8 seasons each year. Find out who are the Traditional Owners where you live and what season it is. Traditional Owners of my region What Aboriginal season is it? AML - JULY = WARNA, WOMEN AUGUST = GULLA, ORCHIO | What season is it? (tick one) | | | | | |
| winter on where they live, with 6 to 8 seasons each year. Find out who are the Traditional Owners where you live and what season it is. Traditional Owners of my region What Aboriginal season is it? AML - JULY = WARNA, WOMEN AUGUST = GULLA, ORCHIO | 4. | | | | | |
| What Aboriginal season is it? APUL - JULY = WARING, WOMEN AUGUST = GULLY, ORCHO | | Winter | on where they live, w | ith 6 to 8 seas | sons each year. | Find out who |
| What Aboriginal season is it? APUL - JULY = WARNA, WOMBAY AUGUST = GULDS, ORCHO | | | Traditional Owners o | f my region | | |
| What Aboriginal season is it? APUL - JULY = WARNA, WOMENT AUGUST = GULDS, ORCHO | _ | | | | yere di i | |
| What Aboriginal season is it? APUL - JULY = WARNA, WOMENT AUGUST = GULDS, ORCHO | | ¬ 。 : | WURLINDS | JEG | | |
| ARUL-JULY = WARING, WOMENT AUGUST = GULDS, ORCHO | 90 - | Spring | What Aboriginal seas | son is it? | | |
| August = Guung Orumo | 3 2011-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1 | | | | WARING. | NOMBA |
| | | | | | | |
| Summer | | | | • | 7 | O ROOT FOR |
| | | Summer | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Autumn | () _ | Autump | | | | |
| D Coldini | | | | | | |

Heating and cooling appliances in the room

| oes this room have heater: | | Yes No How many (Tally) | |
|--------------------------------|------------------------------|---|---------------------------------|
| /hat temperature a | re appliances set | at? | euro potaestelphonastelphiles (|
| Heating and cooling appliances | AC or heater (select one) | | Set temp (°C) |
| Unit 1 | ØAC ○ heater | SIMP ROOM | # cosmo |
| Unit 2 | ○ AC ○ heater | | (HM |
| Unit 3 | ○ AC ○ heater | | |
| Unit 4 | ○ AC ○ heater | | |
| Unit 5 | ○ AC ○ heater | | |
| Unit 6 | ○ AC ○ heater | | |
| Unit 7 | ○ AC ○ heater | | |
| Unit 8 | ○ AC ○ heater | | |
| | _ | | |
| eating and cooling | | conditioners and heaters? Yes O No | |
| | | or air conditioners and heaters? Yes O No | |
| you have signs showing | correct temperatures to | | |

Basic energy audit – windows and doors

| Name (s): | Roby N + Kem | اح3 Date: | 7121 |
|---|---|--------------------------------------|-------------------|
| Name of room being audited _ | STATE ROOM | · | |
| Tools required: Paper strips | | | |
| Assessing windows a | nd doors for energy efficiency | | |
| Complete the table below. | | 0 | |
| What direction are the windows (Note: Most north and west-fac | s in the room facing? ing windows need shading or shelter) | North West ○ ◇ South | O East |
| Are there any curtains or blind | s on the windows? | | Yes O No |
| Are the curtains or blinds open | and windows clear of artworks, etc. to let in na | itural light? | Yes O No |
| Do the curtains or blinds work? | ? (Do they reduce sunlight? Do they keep the he | at or cold in the room?) | Yes O No |
| Are there trees or an awning or | utside the window? | | ⊙ Yes (o |
| Can windows be opened to allo | w natural airflow or cross-ventilation? | • | ƳYes ○ No |
| Is there any draughtproofing or | n the doors? | | ⅓ Yes ○ No |
| Test the windows and doors for | r leaks or draughts (use a strip of paper or featl | her to detect air movement) | |
| List the ones that leak. | | | |
| NIL. | | | |
| | is room that will save energy at you | | -LATULE. |
| 3 | | | |



Basic energy audit – lighting

| Name (s): | CLANG + CONDIE | , Ds | ote: 29/7/21 | | |
|--|---|------------------------------|---|--|--|
| Name of room being | audited ART i Room | De | | | |
| Tools required: Lux m | | | | | |
| For information on us | sing a lux meter, refer to Appendix 2: Tools and calcul | ations. | | | |
| Light globes | | | | | |
| What types of light gl of light. Some LED do | obes are used in this room? Circle the globe type belowwhights can look similar to the halogens light picture | ow. Note that th ed here. | ese are not the only style of each kind | | |
| Globe type: | | | | | |
| | Incandescent light | | Compact fluorescent light | | |
| | No. of globes: | | No. of globes: | | |
| V | | | | | |
| | LED light | | Halogen light | | |
| | No. of globes: | | No. of globes: | | |
| 11 (33) | | | | | |
| , | Fluorescent light tubes | | | | |
| # # # | No. of globes: 36 × 78 | | | | |
| | T12s are the old fluorescent light tubes. T8s are thinner than T12s. T5s are thinner than T8s. | | | | |
| | The thinner they are the more energy efficient they a | are. | | | |
| O4h | | | | | |
| Other globe types No. of globes: | | | | | |
| - | at listed here draw it in the hey to the sight | | | | |
| If your light globe is not listed here, draw it in the box to the right. Try to find out what it is. LEDs are preferred as they are most efficient. | | | | | |
| Try to find out what it | is. LLDs are preserved as they are most emicient. | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| L | ia | ht | sig | מו | aσ | e |
|---|-----|----|-----|----|-----|---|
| _ | . 9 | | 219 | | uy, | • |

Are there signs reminding people to turn off lights? • Yes • No

Are the signs easy to see and read? O Yes O No MA

Do you have any other comments?

Australian Standard lighting levels

What is the light level (lux) in the middle of the room?

What level of lighting is needed in this room? Australia has a list of Standards with recommended lighting levels based on the activity in the room. Circle the type of activity you would expect to see in the room you are auditing and see how the light level in the room compares to the recommended standard. Is the room too dark or too bright?

| Australian Standard (lux) | Location or task |
|---------------------------|--|
| 40 | Hallways, corridors |
| 80 | Change rooms, storage rooms |
| 160 | Areas for occasional reading of printed materials e.g. entrance hall |
| 240 | Food preparation areas, counters for transactions |
| 320 | Classrooms with desks, offices |
| 400 | Classrooms with specialist activities e.g. fine woodwork — MJ Loom |
| 600 | Libraries and areas for proofreading, fine painting γ_{ζ} |
| 1200 | Graphic art inspections |
| 1600 | Watchmaking and fine jewellery making |

How does the light level in your room compare to the Australian Standard?

LESS THAN STANDARD, BUT SEEMED OKAY.

Worksheet Basic energy audit - heating and cooling

| Name (s): | CLANEZ + COE | 0) C 0. | ate: 29/7/21 |
|-----------------------|-------------------------------------|--|---|
| Name of room being | gauditedART Roc | m | |
| Tools required: Infra | red thermometer | | |
| For information on u | using an infrared thermometer, ref | er to Appendix 2: Tools and calcula | tions. |
| Record the room ter | nperature and answer the questio | ns below. | |
| Room tempera | ature | | |
| The RSS guide for te | emperature settings for optimum i | ndoor thermal comfort are: | |
| > Winter: 18-20°C | | | |
| > Summer: 24–27°0 | | | |
| | eture of the room in degrees Celsiu | o cold Okay Too hot | |
| Seasons | | | |
| What season is it? (t | ick one) | | |
| | Winter | on where they live, wi are the Traditional Ow | e their own seasonal cycle depending th 6 to 8 seasons each year. Find out who ners where you live and what season it is. |
| | | Traditional Owners of | my region |
| 000 | Spring | WuRuwo: | |
| | | - | |
| | | | MARING, WOMBAT |
| ->>- | Summer | nugusy | = GULING, ORCHID |
| | Autumn | | |

Heating and cooling appliances in the room

| Does this room have air conditioners (AC)? Does this room have heaters? | | Yes No How many (Tally) Yes No How many (Tally) | | |
|---|--|---|--------------------------|------------------|
| What temperature a | | | | |
| Heating and cooling appliances | AC or heater (select one) | | | Set temp (°C) |
| Unit 1 | O AC heater | ALTROOM WALL | | 4 (1-5 se |
| Unit 2 | O AC O heater | | | |
| Unit 3 | ○ AC ○ heater | | | |
| Unit 4 | ○ AC ○ heater | ı | | |
| Unit 5 | O AC O heater | • | | |
| Unit 6 | ○ AC ○ heater | | | |
| Unit 7 | ○ AC ○ heater | | | |
| Unit 8 | ○ AC ○ heater | | | |
| Heating and cooling Do you have signs remindir Do you have signs showing What other observa | ng people to turn off air correct temperatures f | for air conditioners and heaters? | ○ Yes ⊗ No ○ Yes ⊗ No | |
| HEATER ON | JUY ILAS A | 1-5 SETTING RA | tnae. | |

Basic energy audit – windows and doors

| Name (s): | CLAME & COLDIE | Date: | 2917/21 |
|---|--|----------------------------|-------------------|
| Name of room being audited | CLAIRE + CORDIZ ART ROOM | | |
| Tools required: Paper strips | | | |
| Assessing windows | and doors for energy efficiency | | |
| Complete the table below. | | | 0 |
| What direction are the windo (Note: Most north and west- | ows in the room facing? facing windows need shading or shelter) | West 🕜 | North East South |
| Are there any curtains or bli | nds on the windows? | | Yes O No |
| Are the curtains or blinds op | en and windows clear of artworks, etc. to let in a | natural light? | ✓ Yes ○ No |
| Do the curtains or blinds wo | rk? (Do they reduce sunlight? Do they keep the h | neat or cold in the room?) | Yes O No |
| Are there trees or an awning | outside the window? | | ⊗ Yes ○ No |
| Can windows be opened to a | illow natural airflow or cross-ventilation? | , | Yes O No |
| Is there any draughtproofing | on the doors? | | Yes O No |
| List the ones that leak. | for leaks or draughts (use a strip of paper or fea | | nent). |
| 1_ SI4NAGE 16 | COURED | | |
| 2 /HERMOME | TE REQUIES TO MONTON | 2 14EA71JG + 0 | COOLING TEMP. |
| ٠ <u></u> | | | |



Basic energy audit - lighting

| Name (s): VAUGHAN | + DEACON | Date: | 29/7/21 | |
|----------------------------|----------|-------|---------|---|
| Name of room being audited | LIBRARY | | | _ |

Tools required: Lux meter

For information on using a lux meter, refer to Appendix 2: Tools and calculations.

Light globes

What types of light globes are used in this room? Circle the globe type below. Note that these are not the only style of each kind of light. Some LED downlights can look similar to the halogens light pictured here.

Globe type:



Incandescent light

No. of globes:



Compact fluorescent light

No. of globes:



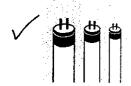
LED light

No. of globes:



Halogen light

No. of globes:



Fluorescent light tubes

18 No. of globes:

T12s are the old fluorescent light tubes. T8s are thinner than T12s. T5s are thinner than T8s

The thinner they are the more energy efficient they are.



Other globe types

No. of globes:

If your light globe is not listed here, draw it in the box to the right.

Try to find out what it is. LEDs are preferred as they are most efficient.

250 W MERCHRY VARSUR PENDANY LIGHTS

| L | .ia | ht | sig | na | qe |
|---|-----|----|-----|----|----|
| _ | | | | | - |

Are there signs reminding people to turn off lights? Yes O No

Are the signs easy to see and read? Yes O No

Do you have any other comments?

Australian Standard lighting levels

What is the light level (lux) in the middle of the room?

What level of lighting is needed in this room? Australia has a list of Standards with recommended lighting levels based on the activity in the room. Circle the type of activity you would expect to see in the room you are auditing and see how the light level in the room compares to the recommended standard. Is the room too dark or too bright?

| Australian Standard (lux) 40 | Location or task Hallways, corridors |
|------------------------------|--|
| 80 | Change rooms, storage rooms |
| 160 | Areas for occasional reading of printed materials e.g. entrance hall |
| 240 | Food preparation areas, counters for transactions |
| 320 | Classrooms with desks, offices |
| 400 | Classrooms with specialist activities e.g. fine woodwork |
| 600 | Libraries and areas for proofreading, fine painting |
| 1200 | Graphic art inspections |
| 1600 | Watchmaking and fine jewellery making |

How does the light level in your room compare to the Australian Standard?

LOWER THAN THE STONDARD, BUT SEEMS OKAM.

Worksheet Basic energy audit – heating and cooling

| Name (s): | VAUGHAN + | DEACON | | Date: | 29/7/21 |
|--------------------------|--------------------------|--------------------------|---|---------------------|--|
| Name of room being a | udited L)B | RARY | e de la companya de La companya de la co | stural general film | |
| Tools required: Infrared | d thermometer | | | | |
| For information on using | ng an infrared thermon | neter, refer to Appendix | c 2: Tools and calc | ulations. | |
| Record the room temp | erature and answer the | questions below. | | | |
| Room temperatu | ıre | | | | |
| - | perature settings for op | otimum indoor therma | comfort are: | | |
| → Winter: 18-20°C | | | | | |
| > Summer: 24–27°C | | | | | |
| What is the temperatur | 1 | | | ot | |
| Seasons | · | | | | |
| What season is it? (tick | one) | | | | |
| | Winter | 0 | n where they live, | with 6 to 8 | wn seasonal cycle depending seasons each year. Find out wh ere you live and what season it i |
| | | Tr | raditional Owners | of my regio | on |
| | Spring | | | | |
| | | W | /hat Aboriginal se | ason is it? | |
| 1 | | | AUZUST | 147 = | WARING, WOMBAT GHUNG, ORCHID |
| -2- | Summer | | | | |
| | Autumn | | | | |

Heating and cooling appliances in the room

What other observations did you make?

| What temperature a | re appliances set | at? |
|--|------------------------------|-----------------------------------|
| Heating and cooling appliances | AC or heater (select one) | Location Set temp (°C) |
| Unit 1 | ⊗ AC (.ieater | LIBRARY EGUNG WAM |
| Unit 2 | ○ AC ○ heater | |
| Unit 3 | ○ AC ○ heater | |
| Unit 4 | ○ AC ○ heater | |
| Unit 5 | ○ AC ○ heater | |
| Unit 6 | ○ AC ○ heater | |
| Unit 7 | ○ AC ○ heater | |
| Unit 8 | ○ AC ○ heater | |
| Heating and cooling Do you have signs remindir Do you have signs showing | ng people to turn off air c | onditioners and heaters? Yes O No |

13

Basic energy audit – windows and doors

| Name (s): | VAUGHAN + DEACON | Date: | 7/21 |
|---|--|-----------------------------|---|
| Name of room being audited | LIBRARY | | |
| Tools required: Paper strips | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| Assessing windows | and doors for energy efficiency | | |
| Complete the table below. | | 0 | |
| What direction are the windo (Note: Most north and west-fa | ws in the room facing? acing windows need shading or shelter) | West West South | ○ East |
| Are there any curtains or blin | ds on the windows? | | Yes O No |
| Are the curtains or blinds ope | en and windows clear of artworks, etc. to let in nat | tural light? | Yes O No |
| Do the curtains or blinds wor | k? (Do they reduce sunlight? Do they keep the hea | it or cold in the room?) | Yes O No |
| Are there trees or an awning | outside the window? | | ○ Yes ᠀ No |
| Can windows be opened to al | low natural airflow or cross-ventilation? | • | O Yes No |
| ls there any draughtproofing | on the doors? | | Yes O No |
| Test the windows and doors (| or leaks or draughts (use a strip of paper or feath | er to detect air movement). | |
| List the ones that leak. | 2 | | |
| Nn | | | |
| List three actions in t | his room that will save energy at yo | our school: | |



Basic energy audit – lighting

| Name (s): | ROBTI | 1 + KELLY | | Date: 29/1124 | |
|---|--|---|---|--|--|
| Name of room being | g audited | Gym | | | |
| Tools required: Lux | meter | | | | |
| For information on (| using a lux mete | r, refer to Appendix 2: Too | ols and calculations. | | |
| Light globes | | | | | |
| What types of light of light. Some LED of | globes are used downlights can lo | in this room? Circle the g ook similar to the haloge | lobe type below. Note that ins light pictured here. | hese are not the only style of each kind | |
| Globe type: | | | | | |
| | Incandescer No. of globes: | ta its | | Compact fluorescent light No. of globes: | |
| | LED light No. of globes: | | | Halogen light No. of globes: | |
| II 🛞 | · | | H (B) | | |
| 44. 11. 11 | Fluorescent | light tubes | | | |
| | No. of globes: T12s are the old fluorescent light tubes. T8s are thinner than T12s. T5s are thinner than T8s. | | | | |
| | | ey are the more energy | | s. Too are diffined than Too. | |
| / | | | | | |
| Other globe types | | | | | |
| No. of globes: | 12 × 41 |) O M | | | |
| If your light globe is | not listed here, | draw it in the box to the r | ight. | | |
| Try to find out what | it is ŁEDs are pr | referred as they are mos | efficient. | | |
| | 41 | | | | |
| Mi | ERCURY V | APOUR | İ | | |
| Pc | NOMNT L | 4475. | | | |
| | | | | | |
| | | | | | |
| | | | | | |



| | Lig | ght | sigi | nage |
|--|-----|-----|------|------|
|--|-----|-----|------|------|

Are there signs reminding people to turn off lights? Yes O No

Are the signs easy to see and read? Yes O No

Do you have any other comments?

Australian Standard lighting levels

What is the light level (lux) in the middle of the room?

What level of lighting is needed in this room? Australia has a list of Standards with recommended lighting levels based on the activity in the room. Circle the type of activity you would expect to see in the room you are auditing and see how the light level in the room compares to the recommended standard. Is the room too dark or too bright?

| Australian Standard (lux) 40 | Location or task Hallways, corridors |
|------------------------------|--|
| 80 | Change rooms, storage rooms |
| 160 | Areas for occasional reading of printed materials e.g. entrance hall |
| 240 | Food preparation areas, counters for transactions |
| 320 | Classrooms with desks, offices |
| 400 | Classrooms with specialist activities e.g. fine woodwork |
| 600 | Libraries and areas for proofreading, fine painting |
| 1200 | Graphic art inspections |
| 1600 ? | Watchmaking and fine jewellery making G |

How does the light level in your room compare to the Australian Standard?

Worksheet Basic energy audit – heating and cooling

| Name (s): Roby. | 1 + Kem | Date: 2917121 |
|---|---------------------------------|--|
| Name of room being audited | GYM | 1 - 2 The second of the Second |
| Tools required: Infrared thermom | eter | |
| For information on using an infra | red thermometer, refer to Appe | ndix 2: Tools and calculations. |
| Record the room temperature and | d answer the questions below. | |
| Room temperature | | |
| The RSS guide for temperature se | ettings for optimum indoor ther | mal comfort are: |
| Winter: 18–20°CSummer: 24–27°C | | |
| What is the temperature of the ro | | 18_°C Okay |
| Seasons | | |
| What season is it? (tick one) | | |
| *** \(\sigma \) | /inter | Aboriginal groups have their own seasonal cycle depending on where they live, with 6 to 8 seasons each year. Find out who are the Traditional Owners where you live and what season it is. |
| | | Traditional Owners of my region |
| | pring | WURUNDJERI |
| | | What Aboriginal season is it? |
| s | ummer | APRIL- JULY = WARING, WOMBY AMENST = Ghund, ORCHD |
| | unine | |
| | utumn | |

Heating and cooling appliances in the room

| Does this room have air conditioners (AC)? Does this room have heaters? | | Yes No How many (Tally) Yes No How many (Tally) |
|--|--------------------------------|--|
| What temperature | e are appliances set | at? |
| Heating and coolin appliances | g AC or heater (select one) | Location Set temp (°C) |
| Unit 1 | ⊘ AC ○ heater | NO TEMPSHOWN, "COOL" ONLY - |
| Unit 2 | ○ AC ○ heater | |
| Unit 3 | ○ AC ○ heater | |
| Unit 4 | ○ AC ○ heater | |
| Unit 5 | ○ AC ○ heater | |
| Unit 6 | ○ AC ○ heater | |
| Unit 7 | ○ AC ○ heater | |
| Unit 8 | ○ AC ○ heater | |
| Do you have signs shov | nding people to turn off air | or air conditioners and heaters? O Yes No NA |

. ALC UNIT ONLY HAS 'ON', COOL FAN HIGH LOW

Basic energy audit – windows and doors

| Name (s): ROBYN + KIZW Date: 29 | 17/21 |
|---|------------------|
| Name of room being audited GYM | |
| Tools required: Paper strips | |
| Assessing windows and doors for energy efficiency | |
| Complete the table below. | 0 |
| What direction are the windows in the room facing? (Note: Most north and west-facing windows need shading or shelter) | orth East outh |
| Are there any curtains or blinds on the windows? NO いんりついら | O Yes O No AlA |
| Are the curtains or blinds open and windows clear of artworks, etc. to let in natural light? | ○ Yes ○ No 私人 |
| Do the curtains or blinds work? (Do they reduce sunlight? Do they keep the heat or cold in the room?) | O Yes O No n\A |
| Are there trees or an awning outside the window? | O Yes O No NA |
| Can windows be opened to allow natural airflow or cross-ventilation? | O Yes O No NIA |
| s there any draughtproofing on the doors? | O Yes No |
| Test the windows and doors for leaks or draughts (use a strip of paper or feather to detect air movement List the ones that leak. | ent). |
| 2x External music Doors List three actions in this room that will save energy at your school: | |
| 1_ PEPUNE LIGHTING FOR MORE ENERGY EFFICIENT | T LIGHTING. |
| 2 DRAUGHT-PROOF EXTERNAL DOORS | |
| 3 THERPROMETER IN GYM TO MONTOR MC JEM | PERATURE |
| REPLACE LIGHTING SIGNAGE | |



Basic energy audit - appliances

| Name (s): | u + fobyn | Date: 2/8/2/ |
|----------------------------|------------|--------------|
| Name of room being audited | STAFF ROOM | |

Optional tool required: Plug-in digital power meter to capture the real-time energy consumption of each appliance. Energy consumption for each item can be added but is not necessary for a basic audit.

For information on using a plug-in power meter, refer to Appendix 2: Tools and calculations.

Appliances in the room

List all appliances in the room, such as fridges, dishwashers, air conditioners, heaters, televisions, computers, and so on.

If the appliance has an energy rating label, record the star rating and yearly energy consumption. The more energy efficient a model, the less energy it will use and the less it costs to run.

If the appliance has no rating label, it should have an electrical rating plate where you can see the power rating of the appliance in watts (W) (see example below).



An example of an energy rating label

This appliance has a four-star rating and uses 390 kWh per year. More stars equal more energy savings.

An example of a rating plate

This appliance uses 190 W of energy (190 J per second) when in good working order. This is also called the power rating.

Note that energy star ratings have changed over the years. Appliances like fridges tend to lose efficiency over time so the energy use listed on the star rating label cannot be taken as true for older appliances. Find out more about energy rating labels, visit energyrating.gov.au/label

If you have a power meter, you can measure the real-time energy consumption of each appliance and compare it to the power rating listed on the rating label or plate.

| Appliance | Is the power on? (Yes/No) | Is it being used? (Yes/No) | Energy rating label stars (1–7 or no rating) | Energy consumed per year (kWh per year on the Energy Rating Label) | Power rating listed on rating plate (W or kW) | Real-time energy use measured with power meter (kWh) |
|--------------------|---------------------------|----------------------------------|---|---|--|---|
| 1. T.V | ♥ Yes ○ No | O Yes ❤ No | 7. | NO LABEL | | 0 |
| MICROLANE 1 | Ø Yes ○ No | ○ Yes | ? , | NO LABOR | | 3.392 W |
| Miceousse 2 | O Yes O No | O Yes | ? | no usa | | 1.666 n |
| loss tel 1 | Ø Yes ○ No | O Yes | ? | no label | | 0 |
| TONSTIL 2 | O Yes O No | O Yes | 7 | NO CASIZL | | O |
| SANDUICH 19AKEL | ⊘ Yes ○ No | O Yes | ? | NO UBEL | - | 0 |
| Froze | Yes O No | Yes O No | 5 | NO CAZZZ | | 7.539 W |
| DIWISHER | Yes O No | O Yes | CINASI | e pacces | .> - | 7 |

What other observations did you make?

MICROWAVES NEED TO BE THANKS OFF AT THE WALL AFTER USE. NOT LEFT ON STANDBY.

MICROWAVE OD IS OLD + MAY NEED REPLACING.

Calculating greenhouse gas emissions

The formula for calculating carbon or CO2e emissions from your electricity and gas consumption can be found in Appendix 2: Tools and calculations.

Basic energy audit – discussion with relevant stakeholders

Organise to meet with (or invite to your class) your principal, business manager, IT person and maintenance team to gather more information. Use these questions as a guide to understand more about energy in your school. This information will be useful when completing the RSS energy module checklist.

What insulation does our school have? For example, ceiling, walls, double-glazed windows. Which rooms have insulation?

· NO DOUBLE GLAZING

- ON WALL OR CHILLY INSULATION.
- · SCHOOL IS 28 YEARS OLD.

How do we know the lights, air conditioners and heaters are working properly and that the reflectors (lights) and air filters (air conditioners) are clean?

ALL HEATORS + ATR. CONDITIONERS ARE SCENICES ON A
6 MONTHLY BASIS.

Do our tea/coffee and hot water systems boil water 24 hours a day or do they have timers? If we have timers, what times are they programmed for?

SMALL TEA + GOFFEE HOT WATER SYSTEM IN OJ 24/7 DUR TO THE SCHOOL BEING HIRED OUT ON WEEKENDS.



What is our shutdown process to save energy overnight, and for holidays and weekends?

24 PHOTOCOPIERS TURNED OFF OVERNIGHT, WEEKENDS + HOLIDAMS.
SWITGHED TO "ENERGY SAVER" DURING THE DAY.

Are the school's computers and printers programmed with sleep and/or shutdown modes and what times are these set for?

M DESKTOP COMPUTERS IN CUESTOOMS AND MORE.

1:1 DEVICES SET TO 'SLEEP' AFTER 5 MINUTES OF

NO USE.

ADMINISTRATION COMPUTERS ARE TURNED OF EACH

NIGHT.

Do we have any energy generation at our school, such as solar panels and wind turbine?

YES 70.3 KW SOLL PANEL SYSTEM INSTAUGA JULY/ AUGUST 2021.

Are our school facilities used by community users? If so, has the school calculated their energy usage? Does the hire agreement include energy-saving clauses?

HIRCRS CHALGED A FLAT RATE.

IT'S TOO EXPENSIVE TO INSTALL SEPARATE METERS TO

TO MONITOR ENERGY USAGE OF HIRERS.

