

# P5 Parent Info Day- Science



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# Agenda

- Department Vision
- Aims of Primary Science Syllabus
- Topics covered in P5
- Assessment
  - Practical Test on Electrical Systems
  - Inquiry Project
  - Exam Format
- Science Inquiry Learning Process
- List of resources available
- How can I help my son?



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# Department Vision

Inquisitive Learners,  
Collaborative Innovators



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# Aims of Primary Science Syllabus

Provide students with experiences/ opportunities to:

- build on their interest and stimulate their curiosity about themselves and their environment
- acquire basic scientific concepts to help them understand themselves and the world around them
- develop skills, dispositions and attitudes for scientific inquiry
- apply scientific concepts and skills in making responsible decisions
- appreciate how science influences people and the environment



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# Topics covered in P5

Term 1	Term 2	Term 3	Term 4
Electrical System	Cont'd of Plant Reproduction	Air & Living Things	Revision & Preparation for SA2
Cells	Water Matters		
<ul style="list-style-type: none"><li>• Human Reproduction &amp; Heredity</li><li>• Plant Reproduction</li></ul>	Project Work		



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# Assessment

- Topical Review after every topic
- Practical Test on Electrical Systems (Term 1)
- Inquiry Project Work (Term 2)
- Quiz [MCQs and OEQs] (Term 3)
- SA2 in Term 4



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# Practical Test on Electrical Systems

- Will be weighted (10%)
- Activities covered in the unit of 'Electrical Systems' will be tested.
- Make sure that the electrical kit is ready and all components are serviceable.
- Encourage your son to tinker and play around with the electrical kit.



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# Inquiry Project (10%)

- Everything will be done in class; we want the boys to learn and display their learning.
- There is no need to schedule out-of-class meetings.
- We focus on the process, not the product.
  - Consistently turning in assignments
  - Deep reflections
  - Working as a team



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# Quiz (20%)

- 5 Multiple-Choice Questions (10 marks)
- 2 to 3 Open-ended Questions (10 marks)

Duration: 50 min



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# Exam Format

Time: 1 h 45 min			
Booklet A	28 MCQ	2 marks each	56%
Booklet B	12 Open-ended	2, 3, 4 or 5 marks	44%
Total	40 Questions	100 marks	100%



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# Science Inquiry Learning Process



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# Stages of our Learning Process

1. Self-directed flipped learning
2. Hands-on learning through guided and open inquiry.
3. E-practice, MCQ-OEQ practice
4. Topical Reviews
5. Consolidation and Extension



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# Stage 1: Flipped Learning

- Boys access Student Learning Space (SLS)
- Reference to Textbook and Revision Guide provided - boys to take responsibility and read up on their own
- Online videos for boys to watch, some educational apps to facilitate learning
- ‘Key Concepts’ to answer (immediate feedback)
- In class, teacher consolidates learning by going through the key concepts and the boys play ‘Quizizz’ to reinforce these



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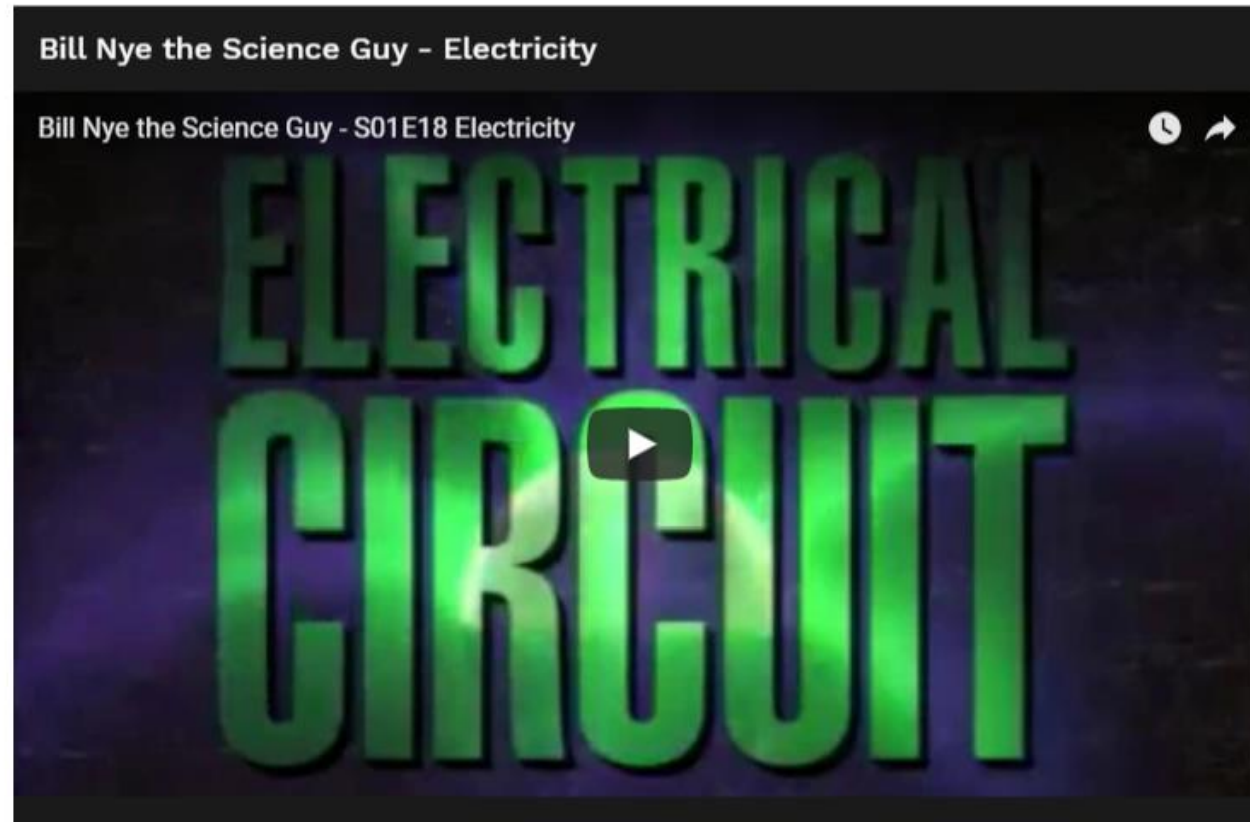


## Flipped Lesson: Bill Nye the Science Guy - Electricity

Lesson: Copy of P5 Electrical Systems Ver.2019

**Do this before you come to class.**

Go to Youtube to watch Bill Nye the Science Guy on electricity. It covers many of the concepts that you will be learning so that you will be able to understand the activities that you will be doing.



Introduction

1 Student's Preparatio...

2 **Flipped Lesson: Bill ...**

3 Key Concepts Quiz

4 Kahoot

5 Bag of Tricks

6 Hands-on Activity 1: ...

7 Hands-on Activity 2:...

8 Hands-on Activity 3:...

9 Hands-on Activity 4:...

10 Extension 1: Virtual ...

11 Hands-on Activity 5:...

12 Hands-on Activity 6:...

13 E-Practice: MCQ

14 E-Practice: Open-en...

15 Extension 2: Is the ...

16 Activity Book Pdf

Feedback



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Q1: A simple electric circuit is an example of a system, consisting of a , wires and a light bulb. A  can be added to open or close the circuit.

My Response

Correct Answer(s)

Your answer has been submitted.

Q2: The battery is the  source of the circuit. It has a positive end and a  end.

My Response

Correct Answer(s)

Your answer has been submitted.

Q3: Wires provide a  for electricity to flow. They are usually made of  and covered up in plastic.

[Feedback](#)

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- [6 Hands-on Activity 1: ...](#)
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# Stage 2: Hands-on Activities (in Class)

- Teacher conducts hands-on activities.
- The focus of this stage is on thinking, scientific procedures, discussion, eliciting varied responses and accounting for learning through varied forms (e.g written work, drawing pictures, modelling).



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### Activity 3: Series or Parallel

**Learning Outcome:** To investigate the effect of arrangement of bulbs on their brightness.

**Big Idea:** Understanding systems allows Man to understand how they operate and how parts influence and interact with one another to perform a function.

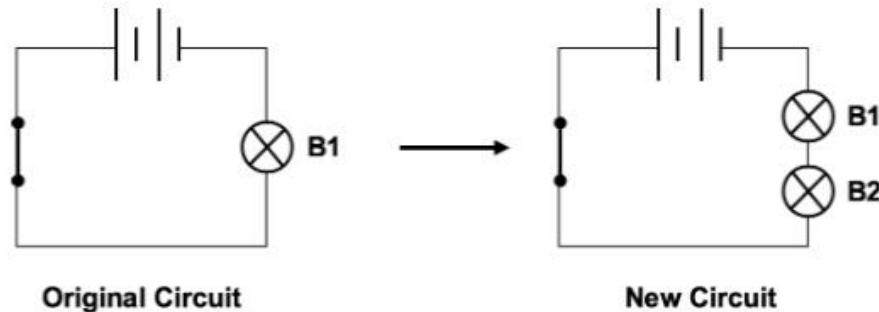
#### Experiment 1

**Predict – What will happen to the brightness of a light bulb when another light bulb is added in a series arrangement?**

☐ Remain the same    ☐ Become brighter    ☐ Become dimmer

#### Procedure:

1. In your group, set up the circuit as shown in the left circuit diagram below.
2. Close the circuit and observe the brightness of the bulb, B1.
3. Open the circuit and add another bulb, B2, in series.
4. Close the circuit and take note of the brightness of the first bulb, B1.



#### Observations:

1. What difference did you observe in the brightness of the original bulb, B1?



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# Stage 3: E-Practice & MCQ/OEQ

- E-practice exemplars are available on SLS. After the questions have been attempted, the correct answers are immediately revealed.
- MCQ/OEQ booklet will be uploaded on Classkick. Teacher will (in class) go through the questions that have been poorly attempted. The answers given by the students will reveal common misconceptions that the teacher will address with the students in class.
- Students should leverage on the E-practice and MCQ/OEQ booklet to review their answers and prepare for the Topical Review.



# Stage 3: E-Practice & MCQ/OEQ

- Classkick
  - Allows an assignment to be simultaneously accessed by students and teachers.
  - Neater (electronic filing).
  - Allows for PDF archival, download and printing (if necessary).

## Guide for Parents

- How to check on the assignments
- How to export to PDF for archival
- [https://drive.google.com/file/d/1vig\\_3g0jnCTOGX\\_I-S1OQnbSRXsl-9BI/view?usp=sharing](https://drive.google.com/file/d/1vig_3g0jnCTOGX_I-S1OQnbSRXsl-9BI/view?usp=sharing)



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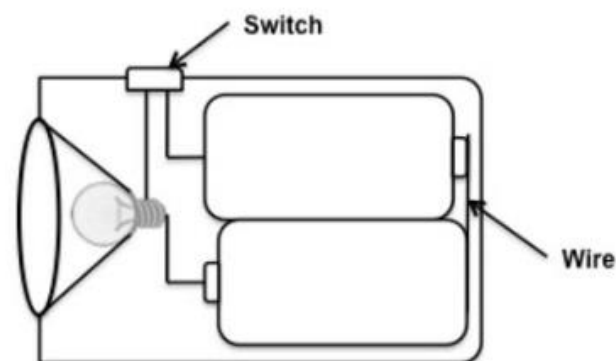


SAVE AS DRAFT

SUBMIT

Q2:

Study the diagram of a torchlight below.



(a) How are the batteries arranged? [1]

They are arranged in \_\_\_\_\_. (1m) ☒ series

(b) What is the advantage of arranging the batteries in this way? [1]

The arrangement will make the brightness of the bulb to \_\_\_\_\_. (1m) ☒ increase

Your answer has been submitted.

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# Stage 4: Topical Review

- 40 marks; 50 minutes
- Assessing the understanding of concepts as feedback for teachers so that they can adjust their teaching
- Marks noted by teachers but not keyed into exam system. Please sign to acknowledge on each of these topical reviews.



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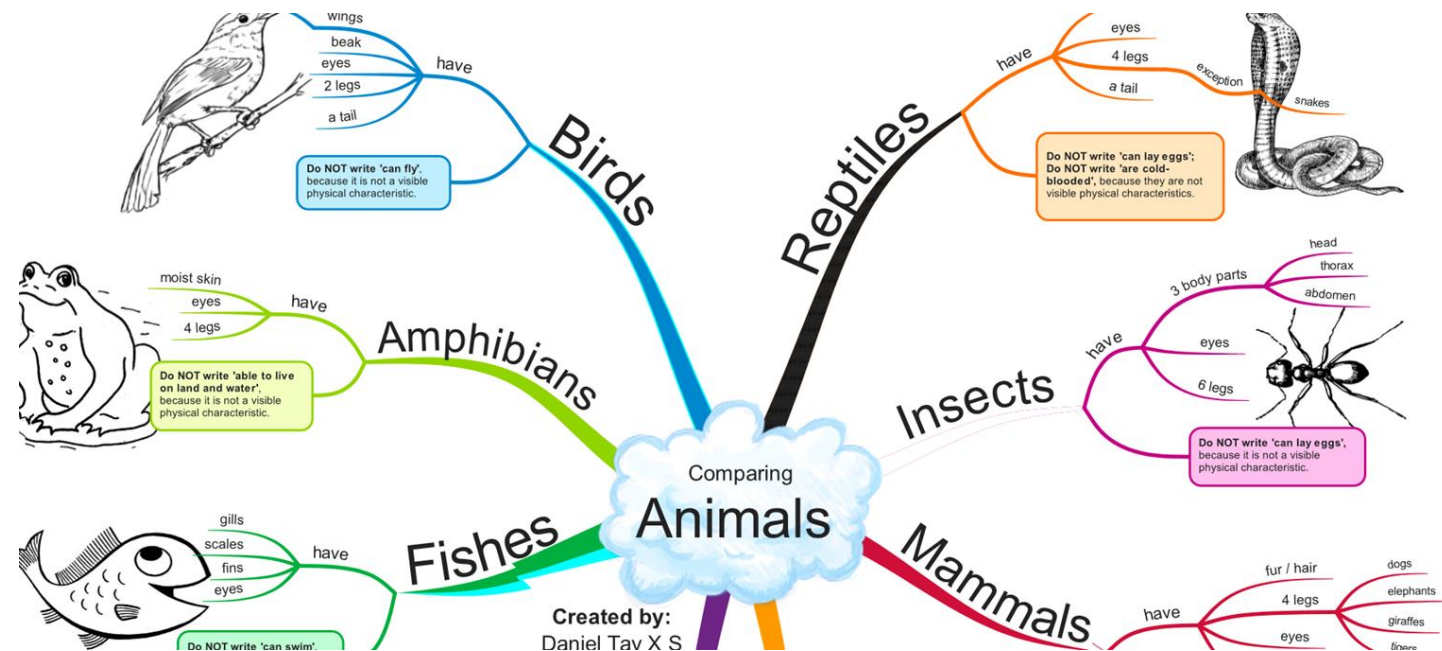
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# Stage 5: Consolidation and Extension

- Mindmaps
- SLS: Extension investigations and activities



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# List of Resources

- Science Textbook and Revision Guide
- Classkick- Activity Booklet and MCQ/OEQ
- SLS Resources (Flipped Learning, videos, key concepts, e-practice, extension activities)
- Science Student's Handbook (aka HANDSOME Booklet)- PDF booklet in Classkick given closer to SA2.



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# How can I help my son?

- Ensure that he has access to
  - Student Learning Space (SLS)
  - Classkick (log in with sjijunior Google account)
  - Google Classroom

Please inform the teacher if he needs a password reset



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# How can I help my son?

- Ensure that he is a responsible self-directed learner and completes his flipped learning homework, key concepts, and E-practice and extension investigations.
- Ensure that he studies for his topical review. After the paper has been returned, that all corrections are done properly and handed in on time.
- **Ensure that he brings the electrical kit for the next few weeks.**



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# How can I help my son?

- Be encouraging and patient when doing revision with him. Be a coach!
- Watch science programmes (e.g National Geographic on YouTube) with him and encourage discussion.
- Do hands-on activities at home (refer to SCI resources page).
- Use “teachable moments” when going to the parks etc...
- Manage the device; ensure it is **for learning**.



# Thank You



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