

## SHOW ONE ASPECT OF HOW PEOPLE USE LIGHT THAT GOD HAS CREATED IN THE UNIVERSE.

**Suggestions for an integrated unit**, showing which activities could be undertaken for each curriculum area, and for which of the six categories of competition they might be relevant. **The suggestions as stated do not necessarily satisfy the rules and judging points of a particular category.** The suggestions are simply non-exhaustive lists of ideas for a variety of activities you could do with your students on the theme of light. You can probably think of more ideas or vary those suggested here. Various Bible verses appearing in these suggestions could apply to more than one activity. You may be able to find more appropriate verses for your particular activities than those given. Wording of Bible verses will vary in different translations, so, to assist the judges, please note on the entry form which translation you used (eg. NKJV) for a particular activity that you enter in the competitions.

**One way to use these activities for the purposes of the competitions is to carefully choose an aspect of light you can make a lot out of. For example, choose an aspect of light for which you can make two or more entries :** make a Poster and write a Song, write a factual account or report for a Writing entry, put the science of the aspect into a Science entry, and the mathematics of the aspect into a Mathematics entry. There may be enough images from each of these to put together for an ICT entry.

+ beside an activity number means a relevant resource is available for loan from the Creation Education Resource Centre.

### **Creative Arts.**

#### **categories of competition in Semester 1, 2015**

activity	Poster	Song	Writing	Science	Maths	ICT
1. create an artwork of a scripture that relates to light (eg. Genesis 1 : 3)	√					
2. use a photo to create a poster of a scripture that relates to light (eg. Genesis 1 : 4)	√					
3. use reflective materials to make decorations that reflect light that God has created				√	√	
4. make puppets for a puppet play (eg. for an English Language Arts activity)			√			
5. illustrate a recount, information text or storybook (see #2 & #3 of English Language Arts)			√			√
6. experiment with chromatography or develop a photo (eg. by exposure) to create an artwork	√					
7. make an artwork to demonstrate translucency or transparency using light God created	√				√	
8. draw a comic book about people using light that God has created (eg. Exodus 13 : 21)			√			√

### **Health and Physical Education.**

#### **categories of competition in Semester 1, 2015**

activity	Poster	Song	Writing	Science	Maths	ICT
1. study the importance of sunlight in the production of melanin				√	√	
2. study the role of photosynthesis in producing plant food for animals (Genesis 1 : 30)				√	√	√
3. compare & contrast the nutritional / energy value of different plant food for people (Gen 1 :29)				√	√	√
4. compare and contrast the effects of using different shade cloths to grow plants for food				√	√	√
5. explore optimum light levels for reading without causing eye strain				√	√	√
6. research the effectiveness of glasses and contact lenses for assisting people's eyesight (1 Samuel 3 : 2)				√	√	√
7. compare and contrast the health of chooks living in natural and controlled lighting				√	√	
8. explain the use of safety mirrors at 'blind' corners			√	√	√	√
9. relate God's creation of light (eg. sunlight) to good health	√	√	√	√	√	√

**Performing Arts.****categories of competition in Semester 1, 2015**

activity	Poster	Song	Writing	Science	Maths	ICT
1. make up a song, hymn or chorus about using light that God has created in the universe (eg. Neh 9 : 19)		√				
2. make up a rhyme, jingle or rap about using light that God has created in the universe (eg. Pr 4 : 18)		√				
3. prepare a lighting plan for a stage production of Day 1 and / or Day 4 of Creation Week (Gen 1 : 1 – 5 , 14 – 19)			√			
4. demonstrate and explain the function light has in entertainment			√			√
5. make a song from a verse(es) of Scripture about people using light that God has created (Psalm 74 : 16)		√				
6. write and compose a praise song thanking God for people being able to use light that He has created		√				
7. make up a play, mime, pantomime, or creative movement about people using light that God has created			√			
8. make up a puppet play (see #4 of Creative Arts) about people using light that God has created			√			
9. use the tune of a known song to write a song to thank God for creating light that people can use		√				
10. create & perform a television ad, interview or news item about an innovation for using light that God has created			√			

**English Language Arts.****categories of competition in Semester 1, 2015**

activity	Poster	Song	Writing	Science	Maths	ICT
1. write a story / essay / recount about people using light that God has created in the universe (eg. Genesis 44 : 3)			√			
2. collate an illustrated recount or information text about people using light God has created in the universe (eg. Exodus 10 : 23)			√	√		
3. make an illustrated storybook about people using light God has created in the universe (Exodus 14 : 20)			√	√		
4. expound the concept that Jesus is the light of the world (John 8 :12)	√	√	√			
5. + retell the analogy from <u>The Voyage of the Dawn Treader</u> about Jesus as the source of light (John 3:19)	√	√	√	√		
6.+ retell part or all of the story of Thomas Edison's invention of the light bulb (cf Judges 7: 16)			√	√		√
7. compose a journal / diary / letter based on research of #5 or #6 above			√			
8. + research the meanings of some of the names of the stars that God created (Ps 147 :4)			√			
9. + recount Isaac Newton's experiment with a glass prism to show the visible light spectrum (cf. Gen 9 : 13)			√	√	√	
10. use PowerPoint presentation to present researched information			√	√	√	√
11. produce an illustrated dictionary about the use of light that God has created			√			√
12. compose a crossword puzzle / word search about the use of light that God has created			√			
13. design a leaflet for a specific target audience about using light that God has created			√			
14. expound human creativity in using light that God has created (Genesis 1:26–27)	√		√			√
15. + document the work of Russell Humphries with starlight (Job 22 : 12)			√	√	√	
16. produce a glossary of terms relevant to using light that God has created			√	√		√
17. list, group and label different lights that God has created in the universe (Genesis 1 : 16)			√			
18. write an account involving the use of mirrors to flash a message			√		√	
19. explain the contrast of Ecclesiastes 2 : 13 involving light and darkness	√	√	√			

**Science.****categories of competition in Semester 1, 2015**

activity	Poster	Song	Writing	Science	Maths	ICT
1. investigate the development of solar powered barbecues (cf Ecclesiastes 12 : 2)				√	√	√
2. demonstrate the design and purpose of windows (1 Kings 7 : 4 – 5)				√	√	√
3. demonstrate the design and function of skylights (cf Mark 2 : 4)				√	√	√
4. demonstrate the use of light in photography				√	√	√
5. study the use of chromatography to separate colours (cf Acts 16 : 14)				√	√	√
6. show the colour spectrum of rainbows (Genesis 9 : 14)				√	√	√
7. study man's use of infra red wavelengths in the light spectrum that God created (Ps 74:16B)				√	√	√
8. study man's use of ultra violet wavelengths in the light spectrum that God created				√	√	√
9. study man's use of x rays in the light spectrum that God created				√	√	√
10. study man's use of microwaves in the light spectrum that God created				√	√	√
11. show how periscopes work using light that God created				√	√	√
12. show how telescopes work using light that God created (Psalm 8 : 3)				√	√	√
13. show how microscopes work using light that God created				√	√	√
14. show how binoculars work using light that God created				√	√	√
15. show how a magnifying glass works using light that God created				√		
16. + investigate God's design of the human eye (Job 28 : 10)	√	√	√	√	√	√
17. demonstrate how a glasshouse works to produce food (Deuteronomy 33 : 14)	√		√	√	√	√
18. construct a working model to demonstrate fibre optics				√	√	
19. explain from a creationist perspective how the shadow of the sundial in Isaiah 38 : 8 could go back		√	√	√	√	√
20. study the relationship between photosynthesis and the carbon cycle to feed people (Isaiah 44:15–16)		√	√	√	√	√
21. + explain the Star of Bethlehem from a creationist perspective (Matthew 2 : 9)	√	√	√	√	√	√
22. demonstrate the relationship between phases of the moon and seasons (Gen 1 : 14)				√	√	√
23. + explain how our sun works to provide light to the earth (2 Samuel 23 : 4)	√	√	√	√	√	√
24. + make a working model of a Moser light using the refraction of sunlight (Psalm 19 : 4C)			√	√	√	√
25. + investigate possibilities for people to copy bioluminescence created by God	√	√	√	√	√	√
26. + explore the relevance of Day 4 of Creation Week to redshift anomalies (Psalm 19:1A)		√	√	√	√	√
27. explain man's uses for 'glow in the dark' white phosphorus			√	√	√	
28. demonstrate how a light beam communicator works ('modern' form of Bell's photophone)			√	√	√	√
29. investigate the applications of the polarisation property of light that God created			√	√	√	√
30. show how selenium / selenide is suitable for making solar cells (Psalm 136 : 8)			√	√	√	√

**Mathematics.****categories of competition in Semester 1, 2015**

activity	Poster	Song	Writing	Science	Maths	ICT
1. explain the speed of light and / or how it impacts on people			√		√	
2. explain the concept of a light year as a mathematical unit of measurement					√	√
3. show how angled and funny mirrors work as entertainment attractions					√	√
4. compare and contrast the effectiveness of different tintings of sun glasses					√	√
5. record and present data on the effectiveness of different percentages of shade cloth					√	
6. record and present data on sunrises and / or sunsets and / or variations in daily durations of daylight (Ps 113:3)			√		√	√
7. study the mathematical aspects (eg. angles) of making stained glass windows	√				√	√
8. draw a timeline showing the luminescence of the moon over one or more months (Job 31:26B)					√	
9. show the relative sizes of different telescopes					√	√
10. show the relative magnifications of different microscopes					√	√
11. show how a luminous clock works				√	√	√
12. make a sundial and show how it works (2 Kings 20 : 11)	√			√	√	
13. . + research and present data about the slowing down of the speed of light (Job 9:8A)			√	√	√	
14. present data about navigating by the stars (Matthew 2 : 2)			√		√	√
15. draw a diagram to show the relationship between phases of the moon and calendars (Gen 1 : 14)					√	√
16. make models to show the importance of the moon's surface area in reflecting sunlight to earth (Gen 1:16)					√	√

**Social Studies, including History.****categories of competition in Semester 1, 2015**

activity	Poster	Song	Writing	Science	Maths	ICT
1. research the history of the development of optical aides (eg, spectacles, lenses)	√	√	√	√	√	√
2. conduct visibility studies on fine, rainy, hazy and / or misty days (cf Genesis 2 : 6)			√		√	
3. explain how the availability of sunlight has influenced the scheduling of cultural & sporting events around the world			√		√	√
4. research the development and use of traffic and / or street lights (cf Job 12 : 25)			√	√	√	√
5. debate the social and personal impact of relaxed censorship laws (Matthew 5 : 28)		√	√			√
6. compare and contrast the effectiveness of different reflective clothing materials			√	√	√	√
7. explain how the Fall was related to what pleased visual impressions (Genesis 3 : 6)			√	√	√	√
8. explore the use of colours in the fashion industry (Judges 8 : 26)	√	√	√	√	√	√
9. study architectural designs as natural lighting strategies	√		√	√		
10. document the use of night lights in houses and / or public places			√	√	√	√
11. research how the candling of eggs has developed in poultry industries			√		√	√
12. recount one or more cultural traditions about fishing by moonlight			√		√	
13. research the use of olive oil lamps in and / or since Biblical times (Exodus 35 : 14)	√		√		√	√

