

Light and Colour: Outcomes and activities

God is Pure and Holy: Foundation Year

Spiritual Overview:

The Bible uses the symbol of light to represent God's goodness and purity. "Walk in the light as He is in the light," 1 John 1:7

Outcomes:

Knowledge

Students will understand

who made light

that light is dependent on the sun

the moon and stars are dependent on the sun for light

that we need light to see colour

the names of the colours

the difference between translucent, transparent and opaque

skills

naming colours

drawing conclusions from science investigations

values:

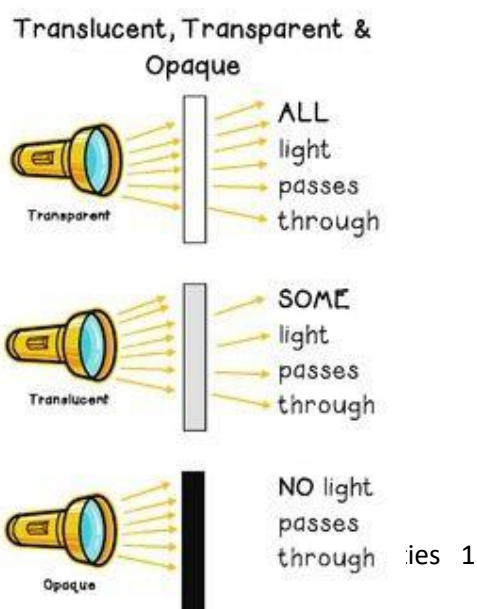
Honesty, fairness; goodness

Activities

Light

Who made light? God! How? He spoke, saying, "Let there be light!". If there was NO light the earth would be dark and cold. Animals, people and plants could not live here. We couldn't see, and it would be so cold. No food could grow!

Science experiments with light



The sun, moon and stars

God created light on the first day and then on Day 4, He created other things to give us light

The Sun: He created the Sun, which makes so much light and heat. It is made of burning gases. The sun is so bright, we should never look right at it as it hurts our eyes!

Other stars: (like the sun but further away.)

The Planets: Remember that there are now 8 planets and not 9. Pluto has been classified as a dwarf planet and not a planet.

The Moon: which has no light itself but reflects the sun's light. The moon and stars give us some light at night.

Draw a daytime picture showing the sun, and a night time picture showing the moon and stars.

Colours of the rainbow

Draw a colour wheel and name the colours.

Make a colourful display of fruit and vegetables and flowers. Compare colours, naming them and even introducing the words, 'light' and dark'. Ask the student to guess what colour it might be inside: they can be the same colour or different, e.g. red apples, potatoes, bananas.

Science experiment:

Walking Water

Things you will need:

- Three cups
- Paper towel
- Water
- Food colouring

Instructions:

1. Fill two of the cups half way with water and place them either side of the empty cup.
2. Colour the water in one cup with yellow dye, and the other with blue dye.
3. Fold or cut the paper towel into two long strips (a few cm wide).
4. Place one end of the first strip into the blue coloured water and the other end of the strip into the empty cup.
5. Place one end of the second strip into the yellow coloured water and the other end of the strip into the empty cup to join the first strip. 6. Watch and wait to see what happens!

Try using different combinations of primary colours!



Science experiment:

Plants need light

Take 2 plants, (or seedlings). Place one in the light, and one in a dark cupboard. Water them both. See what happens.

Dyed Flowers

Things you will need:

- A few stems of bright, white flowers such as lilies, chrysanthemums or carnations
- Jars filled with water
- Food colouring

Instructions:

1. Use the food dye to colour the water in each jar. This experiment works best with strong dye
2. Place the flowers into the jar.
3. Now watch and wait!

You may like to test some different colours, or maybe even draw a picture of your flower as it changes!

You can use celery instead of flowers.

