# Light



Activity Resources for learners and teachers

# **Exploring Why**

# Light

# Activity Resources for learners and teachers

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#### **ABOUT THE EXPLORING WHY SERIES**

#### What is the series about?

Aled and Siân love exploring the places where they live and the places they go to visit. They enjoy playing 'I Spy' to help them get to know these places better. In the *Exploring Why* series Aled and Siân are curious to find out why some of the things around them are important to their Christian, Jewish and Muslim friends. Together they explore bread, light, veil, cross, menorah and water, and then they participate in a Festival of Faiths where they remember and celebrate all these symbols of faith.

The series takes seriously the social significance of religion and the spaces provided in education to question, to explore and to shape young people's growing understanding of their relationships with themselves, with others, and with the natural world. The series has been built on extensive research in the area of religions, young people and education, as well as on engagement with educational practice at regional and national levels. These foundations place the series in a unique position among the many educational resources currently available.

The resources in the series are intentionally non-prescriptive and flexible. This recognises the nature of learning inside and outside the classroom today for the under 7s, and also the importance of stimulating and supporting teachers' creativity and individuality in shaping their learning spaces.

The series has been sponsored by the Welsh Government and devised to support religious education in the Foundation Phase by an active learning through play approach. It explicitly draws on and relates to the Framework for Children's Learning for 3 to 7-year-olds in Wales, the National Exemplar Framework for Religious Education for 3 to 19-year-olds in Wales, and the Literacy and Numeracy Framework in Wales. Although the activity resources are located in this particular context, the research and pedagogical approaches that underpin them may be related easily to other contexts and to changing school curricula

#### Who is the series for?

The storybooks and activity resources in the series are designed for 5- to 7-year-olds, but the variety of storybook formats and activities makes the series relevant for younger and older learners as well.

The series is primarily designed for teachers and learners in schools; however, those within other formal and informal learning contexts, including the home, may also find the series interesting and relevant.

#### What resources are available?

There are seven storybook titles in the *Exploring Why* series, which investigate some of the important things that Aled and Siân find in their exploration of the world around them. These important things are explored intially in the local secular environment before being explored through the eyes of young people

from within a particular religious tradition. The seven storybook titles and religious traditions are:

- Cross (Christian)
- Bread (Christian)
- Veil (Muslim)
- Water (Muslim)
- Menorah (Jewish)
- Light (Jewish)
- Symbols of Faith (brings together the three religious traditions in a celebration of faiths)

Each storybook title is available in four different formats, which can be used flexibly according to individual contexts. The four storybook formats comprise:

- short-text version (short, simple text with pictures)
- long-text version (longer, more complex text with pictures)
- key question version (key questions and pictures)
- pictures version (pictures only without text)

All the formats are available as .pdf downloads, which can be used on whiteboards and a range of electronic devices used regularly by schools, young people and their families today.

The short-text version of each title is also available as a B5 paperback book for school and class libraries, as well as for classroom use.

To support the storybooks, each storybook has its own pack of *Activity Resources for learners and teachers* in downloadable .pdf format. These Activity Resources follow the same structure as the storybooks. Therefore, for each double page of the storybook, there is:

- a page of ideas for activities for each of the seven areas of learning within the Foundation Phase;
- an activity sheet/s for learners to support one of these activity ideas;
- links 'going deeper into aspects of religious education'.

In total, for each storybook title there are 140 ideas for activities and 10 activity sheets for learners.

#### Accessing the Exploring Why series resources

All these resources are available as free downloads at <a href="https://hwb.wales.gov.uk/Resources">hwb.wales.gov.uk/Resources</a> and <a href="https://state.org.uk">st-marys-centre.org.uk</a>
The short-text version of each storybook title is also available for purchase as a B5 paperback book for school and class libraries, as well as for classroom use.

We hope that you enjoy reading the stories and exploring the resources creatively in your own learning contexts.

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- Experiment with light, and test materials to explore which materials light passes through (Activity 1)
- Create shadows and explore how shadows change with light, shape and distance

#### Language, literacy and communication skills

- Talk about what you see through your bedroom window. How is it similar to and different from what Aled and Siân see?
- Think of different words to describe night and day

#### Welsh language development

- light (goleuni)
- sun (haul)

#### Physical development

- Do some morning exercises to wake up and to get you ready to start the school day
- Observe some clouds and pretend to be a cloud moving and changing as you make your way across the sky

#### **Creative development**

- Using different materials and paints, show the view from your bedroom window
- Make a sundial

#### Personal and social development, well being and cultural diversity

- Explore why people sleep at night and for how long people should sleep
- Talk about how you feel when you are tired and have not had enough sleep

#### **Mathematical development**

- Make a record of your sleep, noting when you go to bed and when you wake up
- On a sunny day, monitor (using chalk) what happens to your shadow at different times of the day

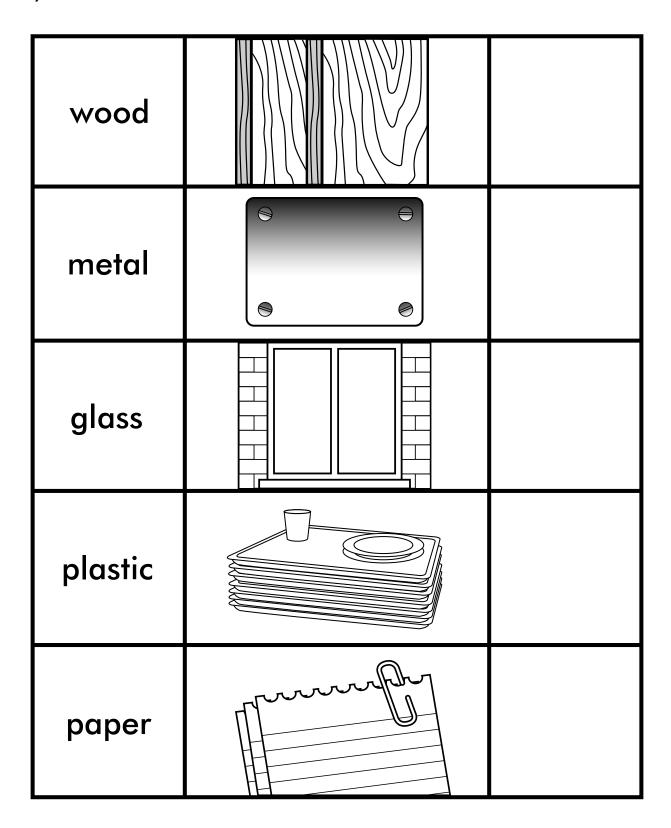




Activity 1 LIGHT

### An experiment with light

Using a torch, test to see which materials light passes through. Record your results in the boxes.









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Page 7

- Learn about light bulbs and the different types of light bulbs you can buy
- Explore how and why we use light (e.g. light bulbs, street lights, car headlights, security lights, oven light, solar panels, cat's eyes)

#### Language, literacy and communication skills

- Talk about what you can see in the picture of the attic and who you think the things belong to
- Explore different words which describe light (Activity 2)

#### Welsh language development

- light bulb (bwlb golau)
- charity shop (siop elusen)

#### **Physical development**

- Think about what other things people do for charity organise an activity like a sponsored walk or run around the school grounds
- Practise climbing stairs carefully like Aled and Siân

#### **Creative development**

- Make a collage of different lights found in magazines
- Cut out the outline of a picture or a pattern and project it on a wall using a light

#### Personal and social development, well being and cultural diversity

- Learn about charity shops and who they help
- Learn about not being wasteful by turning off the lights and think about the dangers of electricity in the home

#### **Mathematical development**

- Count the number of lights, light switches, and electrical sockets in the classroom
- Count the number of sequins on the dress







# **Light words**

Cut out the pictures and words.

• Match the words to the pictures.

beam	
burn	
flash	
glow	
pulse	
reflect	
shine	
sparkle	







Page 8 Page 9

- Experiment with reflections, and discover which materials reflect light
- Talk about what uses batteries in the picture, and what you could not do without batteries

#### Language, literacy and communication skills

- Share and talk about one of your photographs. What story does it tell?
- Tell a story using some props from the toy box

#### Welsh language development

- torch (tortsh)
- bedroom (ystafell wely)

#### **Physical development**

- Play a ball game with different sized balls, using the words 'larger', 'smaller' and 'the same as'
- Pretend to be the plane soaring and speeding through the sky

#### **Creative development**

- Make an album recording the important steps or events in your life, using a variety of materials
- Create a collage of different torches

#### Personal and social development, well being and cultural diversity

- Learn about places that have limited access to electricity
- Share a box of toys with other children

#### **Mathematical development**

- Send a short word in Morse code using a torch e.g. hello, S.O.S (Activity 3)
- Write out and decode a short word in Morse code





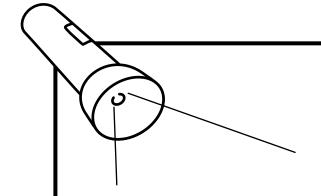






Use a torch to send messages.

A dot (.) is a short flash and a dash is a long flash (-)



hello .....-..---

S.O.S ... ---...

ball -....-.-..

two - .-- ---

five ..-.....

ten -.-.





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Page 11

- Find out more about storms
- Monitor and record the weather for a week

#### Language, literacy and communication skills

- Tell a story about the 'Great Storm'
- Write a poem about a storm in a lightning bolt template

#### Welsh language development

- lightning bolt (taranfollt)
- thunder (taranau)

#### **Physical development**

- Make a dance showing one kind of light (e.g. flashes of lightning, fireworks, flickering flame, the sun rising)
- Pretend to run away from the storm as fast as you can

#### **Creative development**

- Compose music to tell the story of a thunder storm
- Paint a picture of a storm with lightning

#### Personal and social development, well being and cultural diversity

- Identify the dangers of light e.g. sunburn, candles unattended, lightning (Activity 4)
- Explore the effect that storms have on people's lives both here and in other countries

#### **Mathematical development**

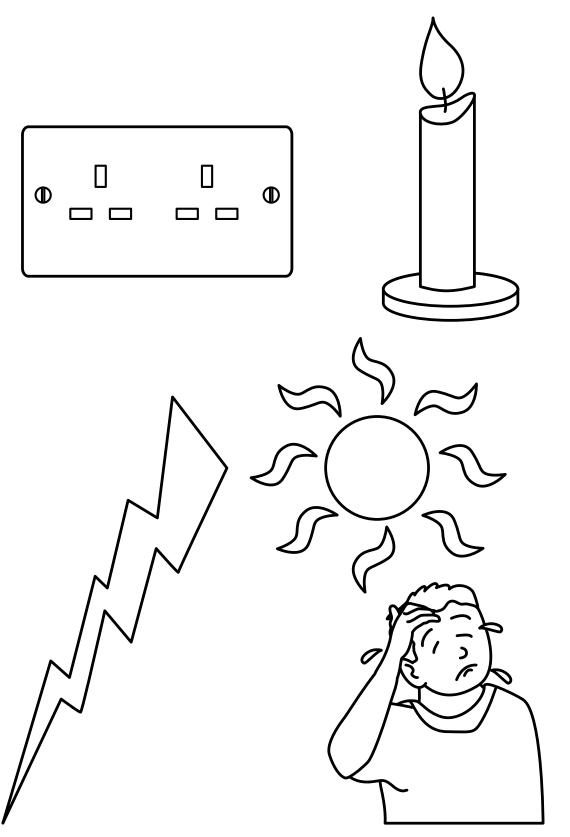
- Find out how many children in the class have seen lightning and how many have heard thunder. Present the information in an easily readable form
- Sit outside and count how many different kinds of bird song you can hear (or how many different sounds you can hear)





Activity 4 LIGHT

Can you spot the dangers of light and electricity in the picture?







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- What are war memorials and what happens there?
- Test different materials to find out which are best (and worst) to wear in the rain

#### Language, literacy and communication skills

- Talk about different ways of resting and make a list
- Make a poem about light using a sun, lightning or candle template (Activity 5)

#### Welsh language development

- candle (cannwyll)
- day of rest (dydd gorffwys)

#### **Physical development**

- Lay a table for Shabbat, carefully setting everything in place
- Practise carrying carefully plates with 'toy food' on them so that nothing falls off

#### **Creative development**

- Decorate a candle for Shabbat
- Design a special Shabbat plate

#### Personal and social development, well being and cultural diversity

- Talk about when you have family meals together. Why is eating together as a family important?
- Tell others about what you have on your table at home, and look at different set tables from around the world

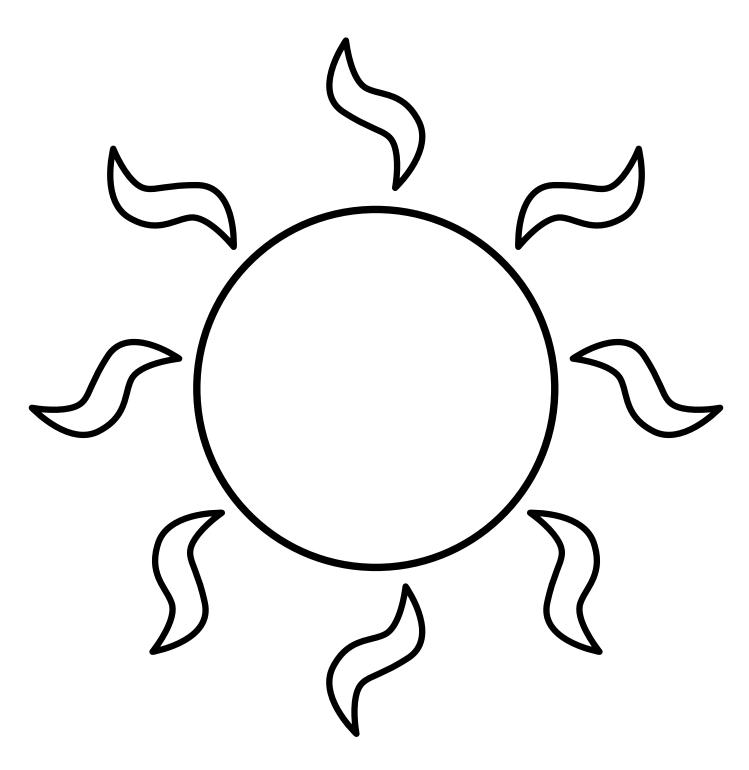
#### **Mathematical development**

- Provide an assortment of different kinds of candle to be sorted according to type and present the candle data in a table format
- Record the difference between your pulse rate before exercise and your pulse rate after exercise





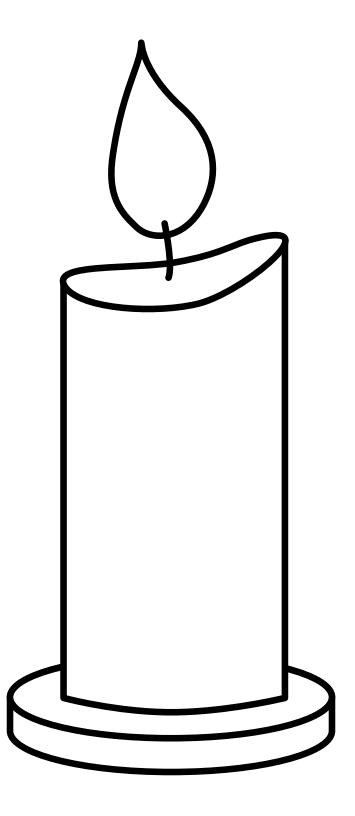


















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- Find out what needs to be cleaned regularly at home and why
- Sort a tray of pictures into 'resting' activities and 'work' (active) activities, according to the requirements of Shabbat (Activity 6)

#### Language, literacy and communication skills

- Role play the Shabbat meal on the Friday evening
- · Read the blessings used in the Shabbat meal on the Friday evening

#### Welsh language development

- Shabbat (Shabbat)
- blessing (bendith)

#### **Physical development**

- Clean and tidy the classroom to get ready for Shabbat
- Wash up carefully after the Shabbat meal

#### **Creative development**

- Design and make a cover for the bread
- Write out one of the Shabbat blessings and make a picture frame in which to display it

#### Personal and social development, well being and cultural diversity

- Practise tidying up after you have finished doing something
- Think about what can you do to help at home

#### **Mathematical development**

- Measure and record the size of the tables in the classroom
- Discover how many people can sit around each table and how many people can sit around all the tables







### **Shabbat activities**

Cut out the pictures and the words.

Sort them into two groups showing:

- 1. Things you are allowed to do on Shabbat
- 2. Things you are **not** allowed to do on Shabbat









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- Explore how sunrise and sunset work, using a globe and a lamp
- Think about why light was created first in the creation story and what the world would be like without light

#### Language, literacy and communication skills

- Read the Jewish story of creation and reflect on images of the natural world
- Reflect on the word 'good' and what it means to you. What was 'good' about the things created in the story of creation?

#### Welsh language development

- creation (creadigaeth)
- heavens and earth (nefoedd a daear)

#### **Physical development**

- Create a dance for the story of creation, either focusing on one day or on the whole story
- Think of all the fast and the slow creatures in the world move like a snail and move like a horse

#### **Creative development**

- Compose music for the story of creation
- Create a picture of the night sky, using a variety of materials

#### Personal and social development, well being and cultural diversity

- Think about the differences between dinner at your home and dinner at Rachel and Nathan's home on a Friday evening (Activity 7)
- How do you think Nathan and Rachel feel being blessed?

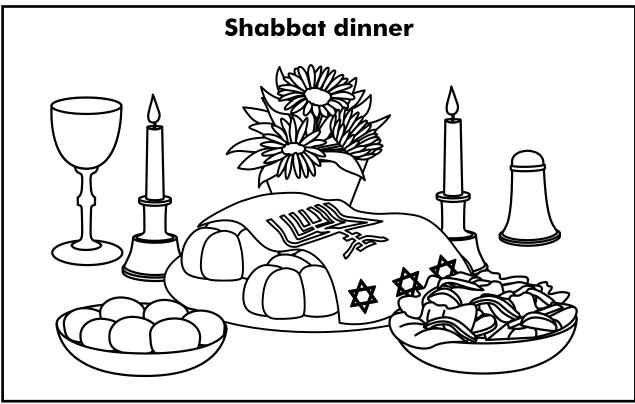
#### **Mathematical development**

- Practise counting in twos (two candles, two loaves, two stories)
- Look at a picture of a starry night sky and count the stars









# My Friday evening dinner







Page 18 Page 19

- Find out which creatures come out at night and which come out in the day
- Sort pictures of living things into different groups (e.g. birds, insects, mammals, reptiles, humans, plants, fish)

#### Language, literacy and communication skills

- Write a poem about the butterfly
- Talk about the pictures of day and night. What other living things would you add to the pictures?

#### Welsh language development

- sky (awyr)
- sea (môr)

#### **Physical development**

- Visit the local swimming pool and, with a float, pretend that you are a fish or a dolphin in the water
- Pretend to be a frog and leap around

#### **Creative development**

- Design labels for the recycling bins, using ICT
- Create a model of a scene from the natural world, using a variety of materials and miniature creatures

#### Personal and social development, well being and cultural diversity

- Visit public gardens or a park. Quietly enjoy and explore the natural world around you, using all your senses
- Learn about the importance of disposing of litter correctly and how to do this

#### **Mathematical development**

- Say the days of the week in the correct order (and in Welsh, learn how days of the week are named after planets)
- Learn that a day is 24 hours and show in a picture how the 24 hours are broken up by different activities (Activity 8)





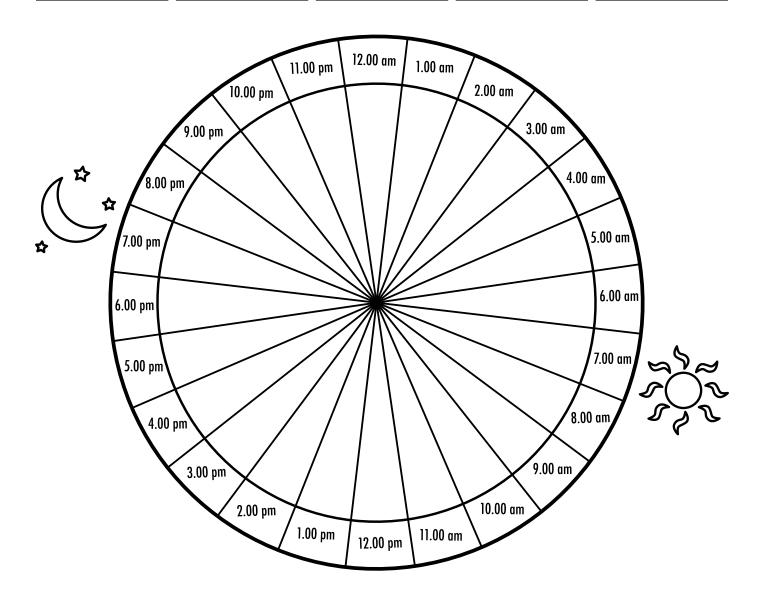


LIGHT

### My 24 hour day

Choose a colour for different activities and then colour in the circle to show 'your day' today.

sleeping	eating	playing	school work	clubs



What do you spend most time doing?







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Page 21

- Learn about where Mount Sinai is in relation to your school using a globe of the world
- Look at pictures of Mount Sinai and the surrounding area and compare them with pictures of scenes of your local area

#### Language, literacy and communication skills

- Carefully copy the 10 Commandments onto two stone tablets (or just the first and fourth commandments)
- Talk about having a 'day off' work (or school) and setting it apart from the other days of the week

#### Welsh language development

- holy (sanctaidd)
- Ten Commandments (Deg Gorchymym)

#### Physical development

- Role play Moses climbing Mount Sinai and carrying the stone tablets down the mountain
- What clothes, equipment, and provisions should you take with you if you are going on a long walk or climbing mountain? (Activity 9)

#### **Creative development**

- Make two stone tablets to show the Ten Commandments
- Create seven art panels placed side by side to show activities on six working days and on Shabbat

#### Personal and social development, well being and cultural diversity

- Talk about the importance of following rules and why they are there (e.g. school, swimming pool)
- Explore the importance for people following rules which are related to their religious faith

#### **Mathematical development**

- Learn to count in tens (the Ten Commandments)
- Compare basic statistics for the area around Mount Sinai with a comparable area in your locality

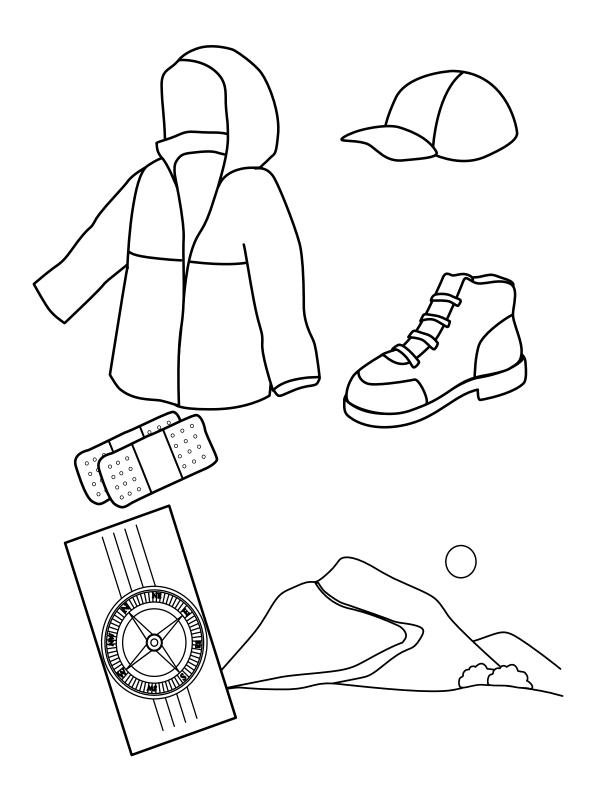




Activity 9 LIGHT

# Getting ready for a hike

What **clothes, equipment,** and **provisions** do you need for your hike?









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Page 23

- When and why are candles used today?
- Explore different ways of storing information (i.e. different ways of remembering)

#### Language, literacy and communication skills

- Write out the things you are thankful for on templates provided. Create a class display entitled, 'We give thanks for ...' (Activity 10)
- Retell the story what can you remember?

#### Welsh language development

- family (teulu)
- remember (cofio)

#### **Physical development**

- Divide a sequence of physical activities into groups of ten (Ten Commandments)
- Sit very still like Nathan and Rachel, and remember the things for which you are thankful

#### **Creative development**

- Listen to some Jewish stories
- Learn some simple Jewish songs about those stories

#### Personal and social development, well being and cultural diversity

- Reflect on and talk about the things for which you are thankful
- Think about how Aled, Siân, Nathan and Rachel feel when they are singing and talking together after the meal has ended

#### **Mathematical development**

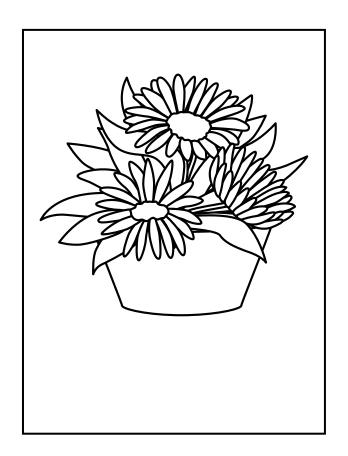
- Count backwards from the number 10, count backwards in groups of 10 (the 10 Commandments)
- Find out what time Shabbat begins and ends this Friday

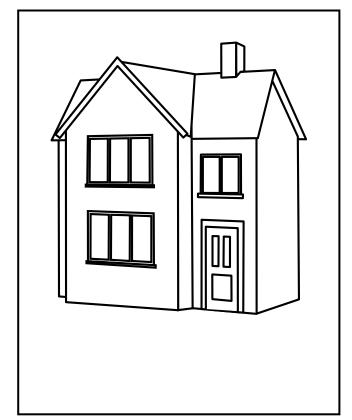


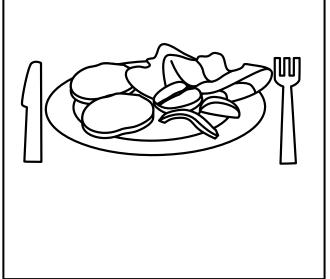


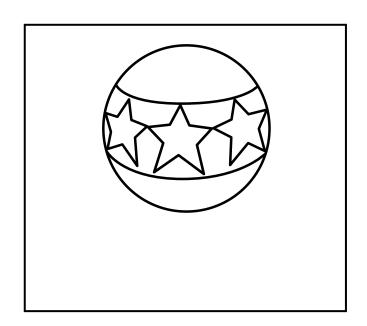


# We give thanks for...



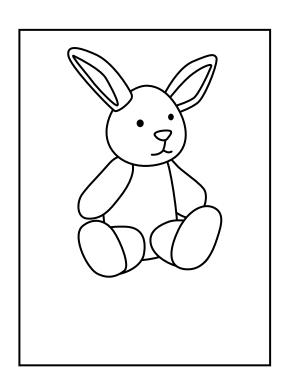


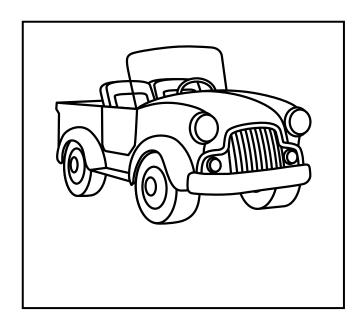


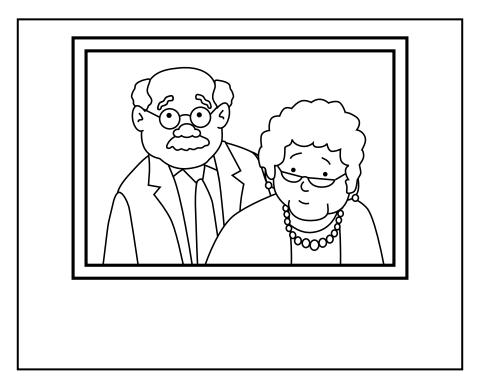




# We give thanks for...









# The National Exemplar Framework for Religious Education in Wales

#### Range: People, beliefs and questions (5-7 year olds)

Children should (through stories, activities and experiences) be given opportunities to:

- gain insight into religion, religious people and religious aspects of life;
- explore how religion has influenced and guided people's lives, past and present, including the emphasis of religion on spirituality and religious experience, in Wales and the wider world;
- pose questions about beliefs, values and actions that arise from exploration;
- investigate and express meaning (including religious meaning) through signs, symbols, artefacts and imagery;
- express personal responses to personal religious and moral questions;
- explore our **responsibility** and the responsibility of religion for living things and for the natural world.



### Pages 4-5



As	pect	of	ran	qe
				-

Pose *questions* about beliefs, values and actions that arise from exploration.

#### **RE** development

Explore how light from the sun inspires religious questions.

#### **Areas of learning**

# Knowledge and understanding of the world

 Create shadows and explore how shadows change with light, shape and distance.

**Aspect of range** 

Express **personal responses** to personal religious and moral questions.

**RE** development

Explore how you feel when you look at the world through your bedroom window.

**Areas of learning** 

# Language, literacy and communication skills

 Talk about what you see through your bedroom window. How is it similar to and different from what Aled and Siân see?



### Pages 6-7

Aspect of range	Gain <i>insight</i> into religion, religious people and religious aspects of life.
RE development	Explore why religious people may be concerned about not wasting electricity.
Areas of learning	<ul> <li>Personal and social, well being and cultural diversity</li> <li>Learn about not being wasteful by turning off the lights.</li> </ul>

Aspect of range

Investigate and express meaning
(including religious meaning) through signs, symbols, artefacts and imagery.

Explore the importance of charity for Jews.

Physical development

Organise an activity like a sponsored walk or run around the school grounds.



### Pages 8-9

Aspect of range	As	pect	of	ran	ae
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Explore our **responsibility** and the responsibility of religion for living things and for the natural world.

#### **RE** development

Explore how religious people feel responsibility for the developing world.

#### **Areas of learning**

# Personal and social development, well being and cultural diversity

Learn about places that have limited access to electricity.

#### **Aspect of range**

Explore how religion has **influenced** and *guided people's lives*, past and present, including the emphasis of religion on spirituality and religious experience, in Wales and the wider world.

#### **RE** development

Explore how religion motivates people like batteries give power to torches.

#### **Areas of learning**

# Knowledge and understanding of the world

 Talk about what uses batteries and what you could not do without batteries.



### Pages 10-11

	As	pect	of	ran	ge
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Gain *insight* into religion, religious people and religious aspects of life.

**RE** development

Explore how the image of storms is used in the Jewish Bible.

**Areas of learning** 

#### **Physical development**

 Pretend to run away from the storm as fast as you can.

Aspect of range

Express **personal responses** to personal, religious and moral questions.

**RE** development

Explore how religious people seek God's protection from storms.

**Areas of learning** 

# Personal and social development, well being and cultural diversity

 Explore the effect that storms have on people's lives both here and in other countries.



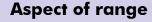
# Pages 12-13

Aspect of range	Investigate and express <i>meaning</i> (including religious meaning) through signs, symbols, artefacts and imagery.
RE development	Explore the meaning given to Shabbat by candles.
Areas of learning	<ul><li>Creative development</li><li>Decorate a candle for Shabbat.</li></ul>

Aspect of range	Express <b>personal responses</b> to personal, religious and moral questions.
RE development	Explore how you feel seated at a table with the Shabbat candles alight.
Areas of learning	<ul> <li>Physical development</li> <li>Lay a table for Shabbat, carefully setting everything in place, including the candles.</li> </ul>



### Pages 14-15



Gain *insight* into religion, religious people and religious aspects of life.



**RE** development

**Areas of learning** 

Explore the Shabbat blessing.

Creative development

 Write out one of the Shabbat blessings and make a picture frame in which to display it.

**Aspect of range** 

Explore how religion has influenced and guided people's lives, past and present, including the emphasis of religion on spirituality and religious experience, in Wales and the wider world.

**RE** development

Explore how the Shabbat meal has influenced and influences Jews today.

**Areas of learning** 

Language, literacy and communication skills

Role play the Shabbat meal on the Friday evening.



# Pages 16-17



**Aspect of range** 

Pose *questions* about beliefs, values and actions that arise from exploration.

**RE** development

Explore how religious people understand the story of creation.

**Areas of learning** 

**Creative development** 

• Compose music for the story of creation.

**Aspect of range** 

Explore our **responsibility** and the responsibility of religion for living things and for the natural world.

**RE** development

Explore how religious people accept responsibility for the world.

**Areas of learning** 

Language, literacy and communication skills

 Reflect on the word 'good' and what it means to you. What was 'good' about the things created in the story of creation?



# Pages 18-19

Aspect of	f range
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Express **personal responses** to personal, religious and moral questions.

**RE** development

Explore how religious people respond to God's creation.

**Areas of learning** 

Personal and social development, well being and cultural diversity

 Visit public gardens or a park. Quietly enjoy and explore the natural world around you, using all your senses.



#### **Aspect of range**

Pose **questions** about beliefs, values and actions that arise from exploration.

#### **RE** development

Explore how religious people address fundamental questions about the beginnings of life.

#### **Areas of learning**

# Language, literacy and communication skills

Write a poem about the butterfly.



### Pages 20-21

#### Aspect of range

Investigate and express **meaning** (including religious meaning) through signs, symbols, artefacts and imagery.

#### **RE** development

Explore the meaning of the day of rest for religious people.

#### **Areas of learning**

# Language, literacy and communication skills

 Talk about having a 'day off' work (or school) and setting it apart from the other days of the week.

#### Aspect of range

Explore how religion has

influenced and guided people's lives, past and present, including the emphasis of religion on spirituality and religious experience, in Wales and the wider world.

#### **RE** development

Explore the way in which the day of rest has influenced religious people.

#### **Areas of learning**

#### Creative development

 Create seven art panels placed side by side to show activities on six working days and on Shabbat.



### Pages 22-23

Aspect of range	Express <b>personal responses</b> to personal, religious and moral questions.
RE development	Explore how you feel and express thanks to others.
Areas of learning	<ul> <li>Personal and social development, well being and cultural diversity</li> <li>Reflect and talk about the things for which you are thankful.</li> </ul>

Aspect of range

Gain insight into religion, religious people and religious aspects of life.

Explore how stillness and quiet help religious people to be thankful.

Physical development

Sit very still like Nathan and Rachel, and remember the things for which you are thankful.