

# Year 2 Knowledge Organisers Autumn Term 2

## Design and Technology

Plan   Design   Make and construct   Evaluate   Compare

### Structures - Baby bear's chair

Function	How something works.
Man-made	Made by people.
Mould	To form different shapes out of soft, squishy materials.
Natural	Found in nature e.g. spider's web, sheep's wool.
Stable	Object does not easily topple over.
Stiff	A material or object that does not bend easily (e.g. wood).
Strong	Something that is not easily broken (e.g. wood, brick, building).
Structure	Something that has been made and put together and can usually stand on its own (e.g. a building, a bridge, a chair).
Test	To find out whether something works as it should.
Weak	Something that is easily broken (e.g. paper, egg shells).

Natural Objects



Man-made Objects



### Key facts

Kapow  
Primary

Often **structures** have a certain **function**, they are made to do something. e.g. Chairs are for sitting on.



They should be **stable**, **strong** and comfortable.  
Was baby bear's chair **stable** and **strong**?



## Computing

Problem solve

Responsible

Digitally literate

Purposeful

Sequence



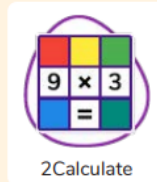
Purple Mash Computing Scheme of Work: Knowledge Organisers

### Unit: 2.3 Spreadsheets

#### Key Learning

- To understand the sorts of tasks that a spreadsheet program could be used for.
- To enter data into spreadsheet cells.
- To use 2Calculate image tools.
- To use the totalling tools.
- To use a spreadsheet for money calculations.
- To use the 2Calculate equals tool to check calculations.
- To use 2Calculate to collect data and produce a graph.

#### Key Resources



#### Key Questions

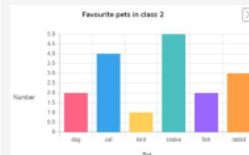
**How could a spreadsheet help you when you are planning some shopping?**

You could use it to store the process and work out how much it would cost to buy the things that you wanted.

**Describe how you can carry out calculations on a spreadsheet.**

You can use the number pad to enter the operators such as + and - with the equals key to complete the calculations.  
You can use the totalling tools to add the contents of cells together across rows, in columns and on diagonals.

**Look at the graph made in 2Calculate showing the class' favourite pets. Which is the most popular?**



#### Calculations

The process or result of adding, subtracting, multiplying, or dividing or a combination of these operations.

#### Cell

An individual section of a spreadsheet grid. It contains data or calculations.

#### Column

Boxes running vertically in a spreadsheet.

#### Data

A collection of information, used to help answer questions.

#### Data table

Laying out data on a spreadsheet in a way that it can be understood easily.

#### Drag

Contents of a cell can be dragged to another cell using the drag tool in 2Calculate.

#### Equals

This symbol can be used in 2Calculate to find the answer to a calculation.

#### Spreadsheet

A computer program that represents information in a grid of rows and columns.

#### Graph

A diagram that represents data. There are set layouts for graphs including bar graphs

#### Row

Boxes running horizontally in a spreadsheet.

#### Equals tool

Tests whether the entered calculation in the cells to the left of the tool has the correct answer in the cell to the right of the tool.

#### Total

In 2Calculate the total tool will calculate the total of all cells above, below or next to it dependent on which total tool used.

# Computing

Problem solve

Responsible

Digitally literate

Purposeful

Sequence



Purple Mash Computing Scheme of Work: Knowledge Organisers

## Unit: 2.4 Questioning

### Key Learning

- To learn about data handling tools that can give more information than pictograms.
- To use yes/no questions to separate information.
- To construct a binary tree to identify items.
- To use 2Question (a binary tree database) to answer questions.
- To use a database to answer more complex search questions.
- To use the Search tool to find information.

### Key Resources



2Count



2Investigate



2Question

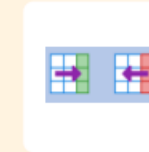
### Key Images



Open, close or share information



Enter data into a pictogram



Add or delete columns in a pictogram



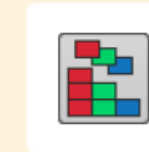
Add a question to sort the information in a binary tree



Give a name to the binary tree



Find information in a database



Sort, group and arrange information in a database

### Key Vocabulary

#### Binary Tree

A simple way of sorting information into two categories.

#### Data

A collection of information, used to help answer questions.

#### Database

A computerised system that makes it easy to search, select and store information.

#### Field

A single piece of data in a database which makes up a record.

#### Pictogram

A diagram that uses pictures to represent data.

#### Question

A sentence written or spoken to find information.

#### Record

An item in a database with a variety of information about a specific entry.

#### Search

Looking for specific information. On a database, you can use the 'Find' tool.

#### Sort

Put things together by features they have in common.

### Key Questions

#### How does a Pictogram show information?

On a pictogram, data is represented by pictures. Pictograms are set out in the same way as bar charts, but instead of bars they use columns of pictures to show the numbers involved.

#### How is information organised in a binary tree?

On a binary tree information is organised through a series of questions that can only be answered 'yes' or 'no'. Eventually only one item is left in the category which forms the end of a branch of the binary tree.

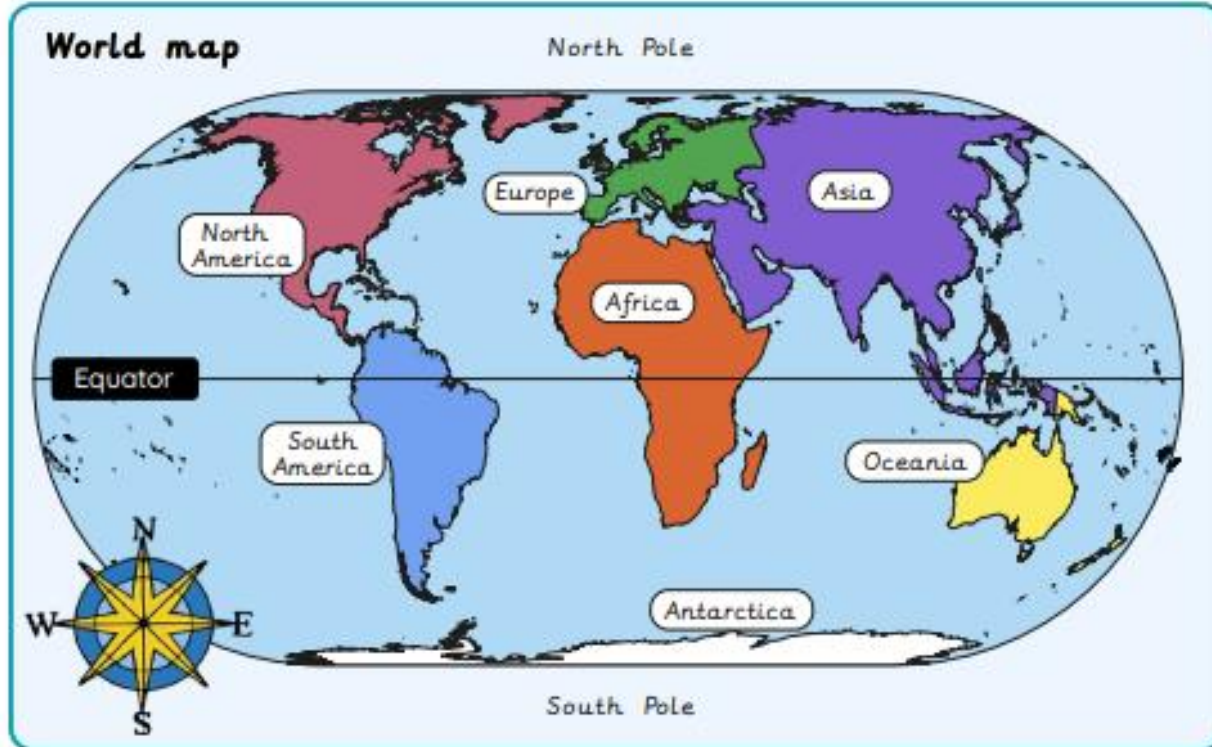
#### How can a database help organise information?

A database is a way of storing information in such a way that it can easily be searched. Databases are designed to hold lots of information that would be difficult to search without using a computer.

## Geography

Locate Identify Investigate Explore Compare Observe and record Collect data Evaluate

Year 2 - Would you prefer to live in a hot or cold place?



UK



What is the same?  
What is different?



Kenya

North Pole



South Pole



## Music

Listen Perform Create Explore Sing Compose Produce Improve



### Knowledge Organiser – Ho Ho Ho – Year 2, Unit 2



#### 1 – Listening: Ho Ho Ho (A fun song about Christmas)

**Find the pulse as you are listening to the music:** Move to the music and feel the groove.

**Instruments/voices you can hear:** Singers, keyboard, bass, guitar, percussion, trumpets and saxophones.



#### 2 – Musical Activities

##### Find the pulse!

- You can march and find the pulse
- You can be rapper and find the pulse

##### Clapping Rhythms

- Copy and clap back rhythms
- Clap the rhythm of your name
- Clap the rhythm of your favourite colour
- Make up your own rhythm

**Pitch** is high and low sounds. We add pitch to the pulse and rhythm when we sing and play an instrument.

**Playing instruments** using up to three notes – G or G, A and B. *Which part did you play?*

**Singing:** Rap and sing Ho Ho Ho. Have fun!

**Improvise** using words

#### 3 – Perform & Share

A class performance. Introduce your performance to your audience. Can you include some funky moves? Have a fantastic time; enjoy it! Talk about it together afterwards. How did it make you feel? Will you record it?

#### Have a think...

*What did you like doing best?*



*Singing?*



*Rapping?*



*Dancing?*



*Playing?*



*Listening?*

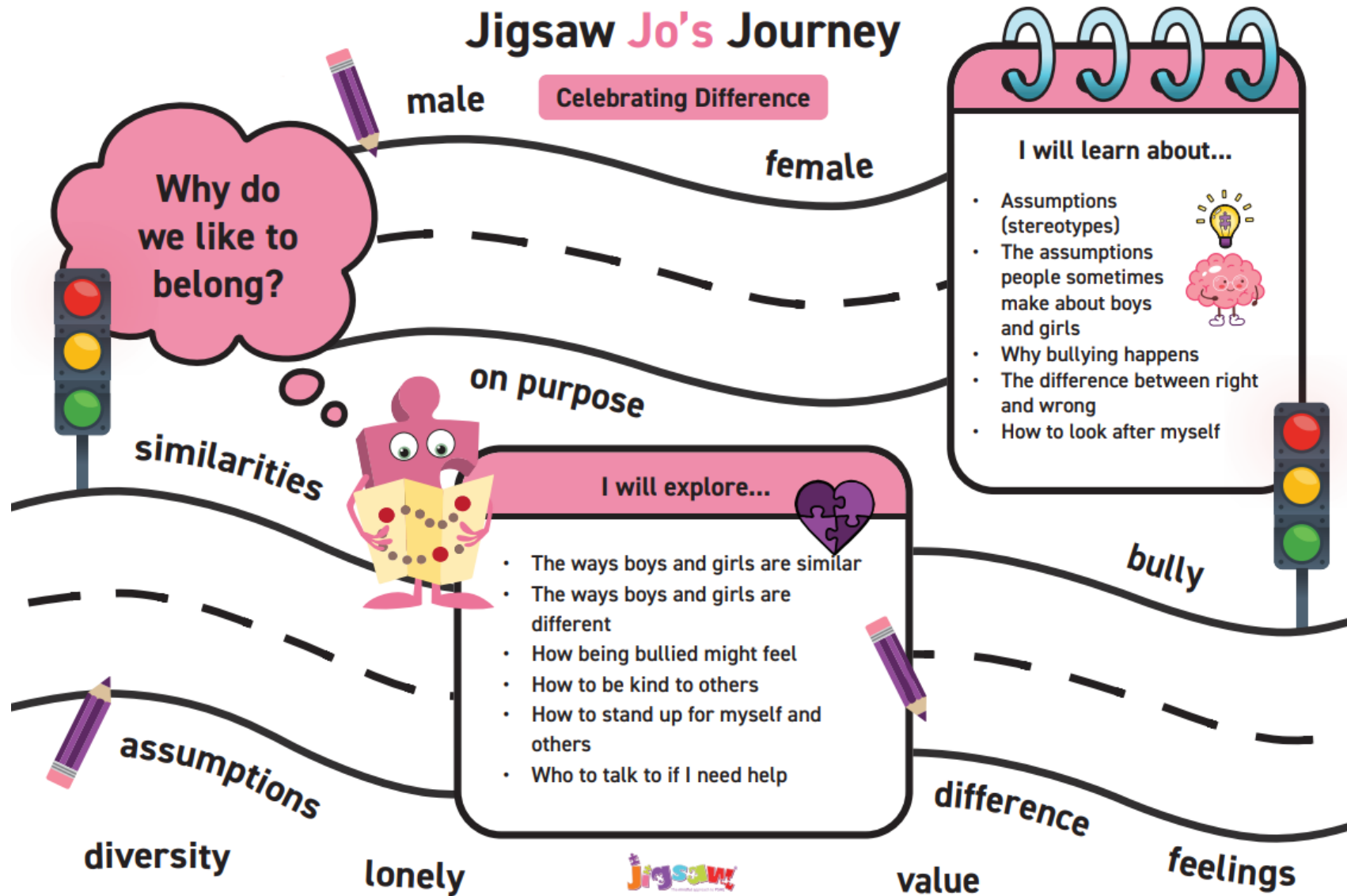


**This unit is about Christmas and having fun!**

**Words you need to know:** Keyboard, bass, guitar, percussion, trumpets, saxophones, pulse, rhythm, pitch, perform, audience, rap, improvise, dynamics, tempo

PSHE  
Subject skills

Discuss · Empathise · Listen to others · Sensitive · Brave · Accepting · Understanding · Share thoughts and ideas · Respect · Honesty



# PE

## Subject skills

Compete

Physical

Sportsmanship

Transferrable skills

Improve

Persevere



Get Set 4 Education

## Knowledge Organiser Team Building Year 2

### About this Unit

Being able to work as a team is an important skill. What does good team work look like?



**Respect:**  
They teach you to be more understanding of others and to share responsibilities between you.



**Communication:**  
Learning to listen to others, giving and following instructions and sharing ideas.



**Problem solving:**  
You get to learn from others and share ideas to find the best answer to solve a problem.



**Working together:**  
Being able to share ideas and work together to come up with a plan.

Ladder Knowledge



**Problem solving:**  
listening to each other's ideas might give you an idea you hadn't thought of.

**Navigational skills:**  
a map tells us where we are.

**Communication:**  
using encouraging words when speaking to a partner or group will help them to trust you.

**Reflection:**  
talking about what you have done well and what you could improve will help you if you play again.

Movement Skills

- run
- jump
- balance
- co-ordination

This unit will also help you to develop other important skills.

**Social** support and encourage others, communication, inclusion, trust, kindness  
**Emotional** perseverance, confidence, determination, accepting  
**Thinking** comprehension, identify strengths and areas for development, problem solving

Rules

Listen carefully to the rules of each game so that you can use them.

Healthy Participation

- Work safely around others and when using equipment.
- When using blindfolds, make sure the area is safe and only move when your partner tells you to.

### Home Learning



Find more games that develop these skills in the Home Learning Active Families tab on [www.getset4education.co.uk](http://www.getset4education.co.uk)

### Key Vocabulary



communicate	plan
include	solve
instructions	successful
map	support



If you enjoy this unit why not see if there is a forest school club in your local area.



This unit will help you to:

- balance
- move different body parts at the same time
- be faster

### Magic Carpet



**What you need:** Ten socks, one towel per player, one or more players.

#### How to play:

- Mark a distance of 5m - 7m and place all of the socks at one end.
- Players begin sitting on their towel at the start line opposite the socks.
- They race to collect one sock at a time and transport it back to the start line. They must not come off their towel.
- Make the carpet move by bringing your heels to your bottom and then straightening your legs as you shuffle forwards.
- Playing by yourself? How quickly can you transport the socks?
- Playing with someone else? Who can transport the most socks?

How else can you make the carpet move?



[www.getset4education.co.uk](http://www.getset4education.co.uk)

# PE

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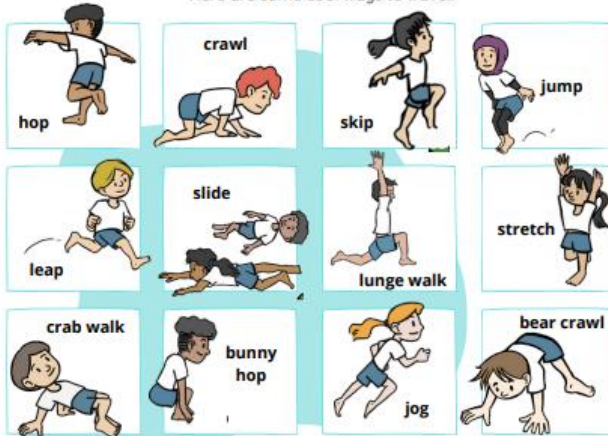


## Knowledge Organiser Gymnastics Year 2

### About this Unit

In gymnastics you learn to move your body in really fun ways. From balancing to rolling and jumping. In gymnastics you can link these actions using travelling actions to create sequences. Sequences are like stories with a beginning, middle and end.

Here are some cool ways to travel.



### Key Vocabulary

balance		
direction	pike	speed
level	roll	star
link	sequence	straddle
pathway	shape	tuck



### Ladder Knowledge



#### Shapes:

Some shapes link well together.

#### Balances:

Squeezing your muscles helps you to balance.

#### Rolls:

There are different teaching points for different rolls.

#### Jumps:

Looking forward will help you to land with control.

### Movement Skills

- shapes
- balances
- travelling actions
- shape jumps
- barrel roll
- straight roll
- forward roll

This unit will also help you to develop other important skills.

Social	leadership, work safely, respect
Emotional	confidence, independence
Thinking	select and apply actions, creativity

### Strategy

Use shapes that link well together, it will help your sequence to flow.

### Healthy Participation



- Remove shoes and socks.
- Make sure the space is clear before using it.

### Home Learning

Find more games that develop these skills in the Home Learning Active Families tab on [www.getset4education.co.uk](http://www.getset4education.co.uk)

### Gymnastics Obstacle Course

**What you need:** a dressing gown rope, two pillows and toy

#### How to play:

- Create a gymnastics course by placing out the rope, pillows and toy.
- Balance along the rope, jump and land on each of the pillows then create a balance by creating the same shape as your chosen toy.
- Place the items further apart and link your actions using different travelling actions e.g. crawl, spin, hop, lunge etc.



[www.getset4education.co.uk](http://www.getset4education.co.uk)

If you enjoy this unit why not see if there is a gymnastics club in your local area.



This unit will help you to:

- balance
- move different body parts at the same time
- be more flexible
- be stronger

Head to our youtube channel to watch the skills videos for this unit.



@getset4education136

## Science Skill

Explain

Classify

Observe

Question

Investigate

Predict

Evaluate

### KSI - Microhabitats



A **microhabitat** is a small area with different conditions to the surrounding area.



under logs and stones



grass



leaf litter



soil

**Minibeasts** are small creatures without a backbone.

woodlouse



ladybird



snail



worm



**Minibeasts** live in microhabitats that provide them with **food** and **shelter**.

Scientists use **super science skills** to find answers to questions.

### Super science skills

Researching



Observing over time



Comparative and fair testing



Grouping



Spotting patterns

