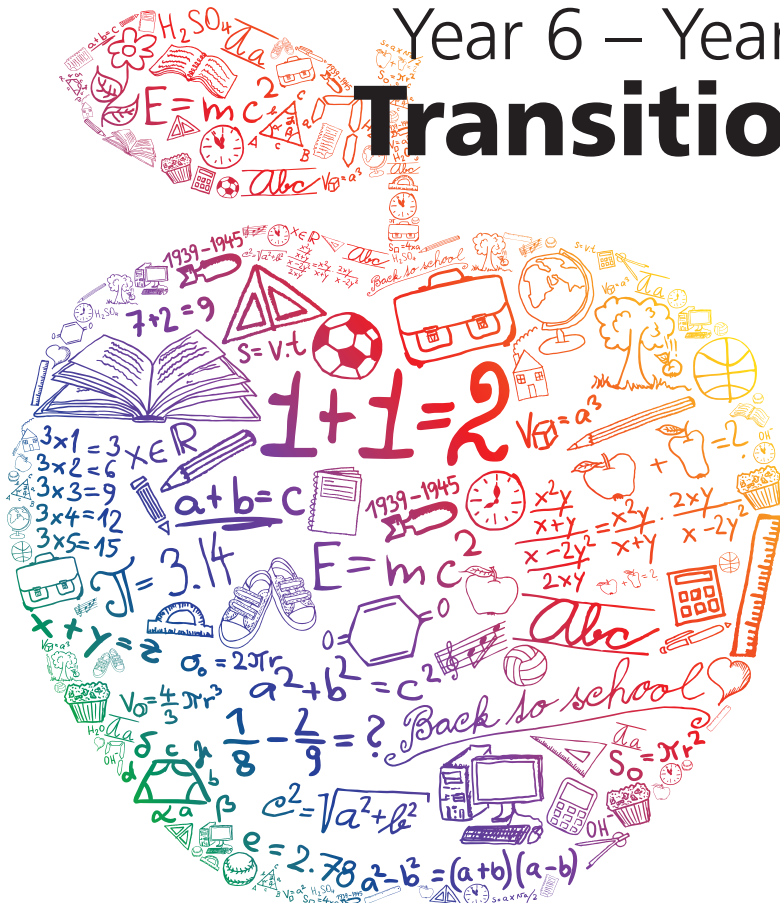




**KESH**

KING EDWARD VI  
SHELDON HEATH ACADEMY

# Year 6 – Year 7 Transition



## Booklet 2:

### Subject Tasters – Maths, English, Science

Name: .....

Primary School: .....

Secondary School:.....

**Remember to bring your booklets in September to earn rewards for completed activities!**



## Booklet 2: Subject tasters

# Journey to KESH

**Welcome to KESH! You are now on a journey into secondary school. It's a journey not just for you, but for your family, and it will mean changes for them too. For any journey, you need to do lots of preparation to make the ride as smooth as possible.**

These two booklets are here to help you: they

contain 25 fun activities for you to do with your family to help you get ready to start your new school.

In this booklet, you will find Activities 11 – 25.

They are designed to give you a sneak preview of some of the exciting subjects you will be studying, and help you to practise some of the skills you will need to succeed academically at KESH.

<b>11</b> 2D Shapes and their Properties	<b>12</b> Coordinate Picture	<b>13</b> Fractions Code Breaker	<b>14</b> Butterfly Symmetry	<b>15</b> Percentages Colouring
<b>16</b> Book Review	<b>17</b> Myths and Legends	<b>18</b> Story Structures	<b>19</b> Gothic Writing	<b>20</b> Creative Writing
<b>21</b> Living or Non-Living?	<b>22</b> Making a Key	<b>23</b> Measurements	<b>24</b> Floating Candle Experiment	<b>25</b> Elastic Powered Boat

**Remember to cross off each completed activity on your Journey to KESH Activity Passport to earn rewards in September!**

### **BRING YOUR BOOKLETS TO SHOW YOUR FORM TEACHER ON YOUR FIRST DAY AT KESH TO GET REWARDED!**

**Each completed activity:** you will earn 4 house points.

**Line of 5 completed activities** (can be up, down or diagonal): you will earn 20 house points and a Form Teacher Certificate.

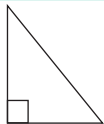
**Full house of completed activities** (all 25): you will earn 100 house points, a Head of Year Certificate presented to you in assembly, and A PRIZE!

# Year 6 – Year 7 Transition

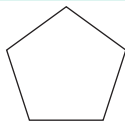
## Activity 11 Maths

## 2D Shapes and their Properties

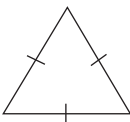
Name each shape and write down the properties (number of sides/right angles/pairs of parallel sides).



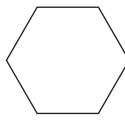
Name... *Right-angled triangle*..  
Sides? ... *3 sides* ..  
Angles? ... *3 (1 right angle)* ..



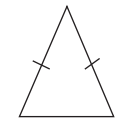
Name.....  
Sides? .....  
Angles? .....



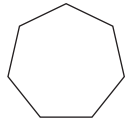
Name.....  
Sides? .....  
Angles? .....



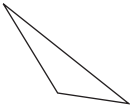
Name.....  
Sides? .....  
Angles? .....



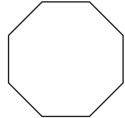
Name.....  
Sides? .....  
Angles? .....



Name.....  
Sides? .....  
Angles? .....



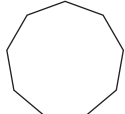
Name.....  
Sides? .....  
Angles? .....



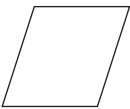
Name.....  
Sides? .....  
Angles? .....



Name.....  
Sides? .....  
Angles? .....



Name.....  
Sides? .....  
Angles? .....



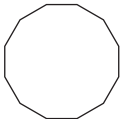
Name.....  
Sides? .....  
Angles? .....



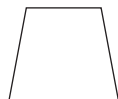
Name.....  
Sides? .....  
Angles? .....



Name.....  
Sides? .....  
Angles? .....



Name.....  
Sides? .....  
Angles? .....

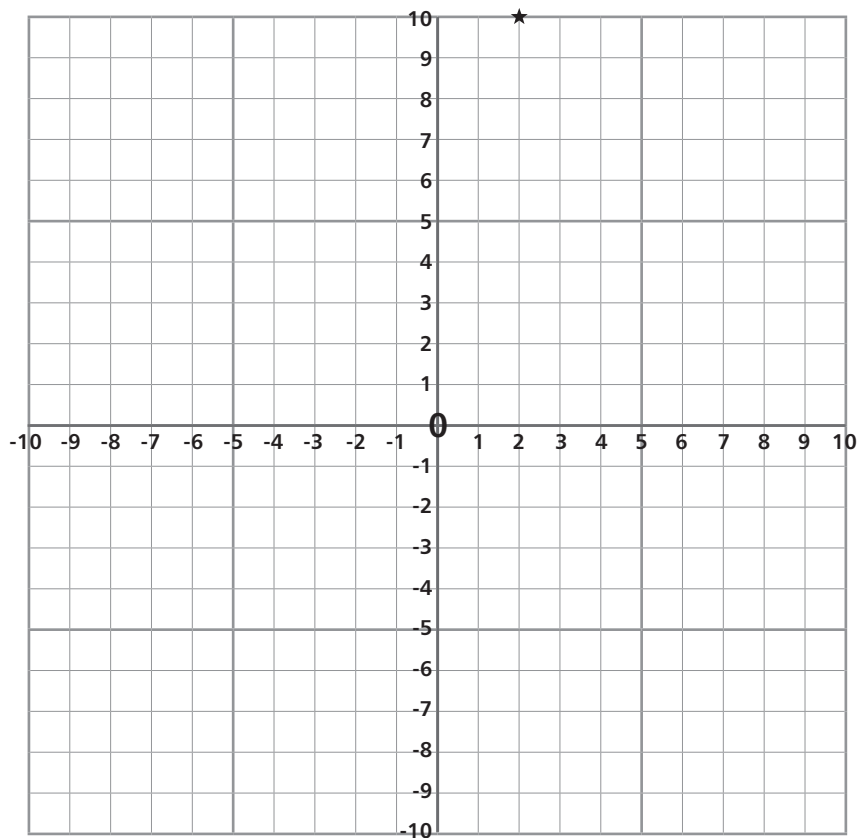


Name.....  
Sides? .....  
Angles? .....

**Activity 12**  
Maths

# Coordinate Picture

Plot the coordinates onto the grid and join them together to draw a summer picture.  
Eg. (2, 10) means 2 along and 10 up – I've put a star on the first coordinate.



**Shape 1**

(2, 10)	(5, 8)	(6, 6)	(6, 4)	(7, 3)	(7, 2)	(6, 1)	(5, 1)	(4, 2)
(3, 2)	(2, 1)	(1, 1)	(0, 2)	(-1, 1)	(-2, 1)	(-3, 2)	(-4, 2)	(-5, 1)
(-6, 1)	(-7, 2)	(-7, 3)	(-6, 4)	(-6, 6)	(-5, 8)	(-2, 10)	(1, 10)	

**Shape 2**

(5, 1)	(-10, 0)	(-5, 1)
--------	----------	---------

**Shape 3**

(2, 8)	(2, 7)
--------	--------

**Shape 3**

(-2, 8)	(-2, 7)
---------	---------

**Shape 5**

(2, 6)	(2, 5)	(1, 4)	(-1, 4)	(-2, 5)	(-2, 6)
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What have you drawn?

.....

# Year 6 – Year 7 Transition

## Activity 13 Maths

## Fractions Code Breaker

Solve the calculations and use the code breakers to spell out the joke. The joke will read down the table.

A	B	C	D	E	F	G	H	I	J	K	L	M
6	15	21	5	13	24	18	7	12	1	25	19	9
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
22	16	11	26	2	17	20	3	10	8	14	23	4

	Answer	Letter
$\frac{2}{3}$ of 20		
$\frac{1}{7}$ of 49		
$\frac{1}{2}$ of 46		

	Answer	Letter
$\frac{1}{6}$ of 30		
$\frac{4}{5}$ of 20		

	Answer	Letter
$\frac{5}{6}$ of 18		
$\frac{2}{3}$ of 18		
$\frac{2}{3}$ of 33		
$\frac{1}{4}$ of 24		
$\frac{1}{2}$ of 44		
$\frac{1}{3}$ of 30		
$\frac{1}{2}$ of 34		

	Answer	Letter
$\frac{1}{3}$ of 24		
$\frac{1}{3}$ of 51		
$\frac{1}{3}$ of 39		

	Answer	Letter
$\frac{1}{4}$ of 68		
$\frac{1}{3}$ of 15		
$\frac{2}{3}$ of 55		

	Answer	Letter
$\frac{1}{2}$ of 42		
$\frac{1}{10}$ of 20		
$\frac{1}{2}$ of 52		
$\frac{1}{9}$ of 54		
$\frac{2}{3}$ of 15		?

	Answer	Letter
$\frac{1}{2}$ of 30		
$\frac{1}{8}$ of 104		
$\frac{1}{3}$ of 63		
$\frac{1}{2}$ of 12		
$\frac{1}{3}$ of 9		
$\frac{1}{5}$ of 85		
$\frac{1}{5}$ of 65		

	Answer	Letter
$\frac{2}{3}$ of 30		
$\frac{1}{3}$ of 21		
$\frac{1}{3}$ of 39		
$\frac{1}{2}$ of 46		

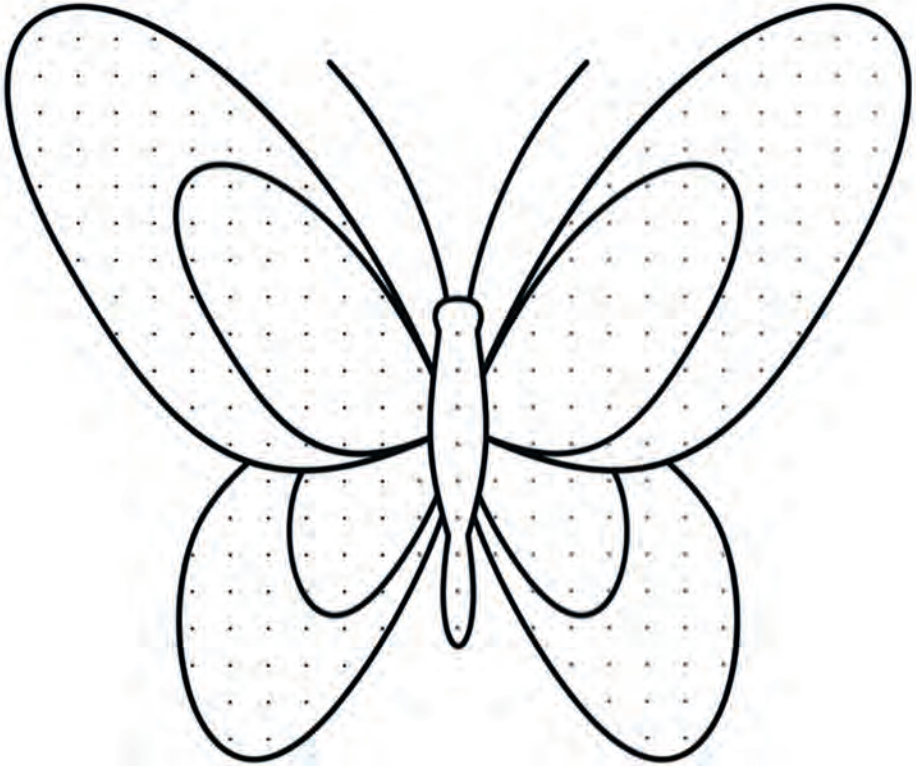
	Answer	Letter
$\frac{1}{3}$ of 33		
$\frac{1}{4}$ of 52		
$\frac{1}{8}$ of 104		
$\frac{1}{2}$ of 38		

What's the joke? .....

### Activity 14 Maths

## Butterfly Symmetry

Use the dots to draw a symmetrical pattern on your butterfly using different regular and irregular polygons.



A **polygon** is a 2D shape with straight sides. For example – triangles, rectangles, and pentagons (a circle is not a polygon as it has a curved side).

**Regular polygons** all sides of the same lengths, like a squares and equilateral triangles, whereas **irregular polygons** do not, like rectangles and scalene triangles.

Which polygons did you use in your symmetrical butterfly pattern?

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## Year 6 – Year 7 Transition

## Activity 15

### Maths

# Percentages Colouring

Find the percentage of each amount in each question and colour the section using the key at the bottom to reveal the hidden picture.



Work out the answer. Now colour each area according to the key below.

## Brown 2

Light Green 4

## Yellow 5

## Orange 6

## Pink 7

Red 8

## White 9

Dark blue 10

Light blue **12**

Dark Green 15

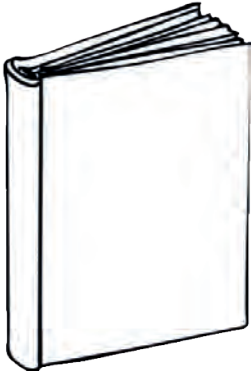


## Activity 16 English

## Book Review

Reading is a hugely important skill that will help you in every subject at KESH, and for the rest of your life. Your English lessons will all begin with ten minutes of silent reading.

Write a review of your favourite book or a book you have recently read.



My book cover

Star rating: ☆☆☆☆☆

**Book Title:** .....

**Author (and illustrator):** .....

**Fiction or non-fiction:** .....

**Genre (circle one):**

Horror

Fantasy

Adventure

Humour

Sports

Historical

Mystery

Animal story

Romance

Fairy tale

Realistic fiction

Classic

**Other:** .....

### Characters:

The protagonist (main character):

How did the author present the protagonist?  
(*Personality, features, etc*)

Which characters changed during the story and how?

### Plot:

How did the story begin?

What was the climax of the story? (*Most dramatic moment, the peak of tension*)

How was the story resolved at the end?

### General:

Would you recommend this book? Why or why not? .....

Why do you think the writer wanted to tell this story? .....








# Year 6 – Year 7 Transition

## Activity 17 English

## Myths and Legends

In year 7 English, the first topic you will study is 'Myths and Legends'. You will be introduced to exciting stories of adventure and wonder; heroes and monsters; love and betrayal.

Choose one of these myths, legends or religious stories to research and create a fact file to show your English teacher. You could present this as a poster, leaflet, PowerPoint presentation, or in any other creative way that you would like to.

Origins	Noah's Ark	Pandora's Box	Judas	Adam and Eve	Cain and Abel	Creation
						
Ambition	Hercules	Minotaur	Cyclops	David and Goliath	Achilles	Icarus
						
Love	Pyramus and Thisbe	Trilus and Cressida	Damon and Pythias	Narcissus	Pygmalion	Orpheus and Eurydice
						
Gender	Helen of Troy	Adonis	Hercules	Samson and Delilah	Medusa	Jason and Medea
						

### You could include:

- What are the origins of the story?
- Who are the main characters?
- A summary of the story
- What are the main themes? (E.g. friendship, jealousy, love, etc.)
- Have you heard of this myth, legend or religious story before? If so, where? What has it influenced?
- Pictures
- Your personal response
- Anything else you find interesting!

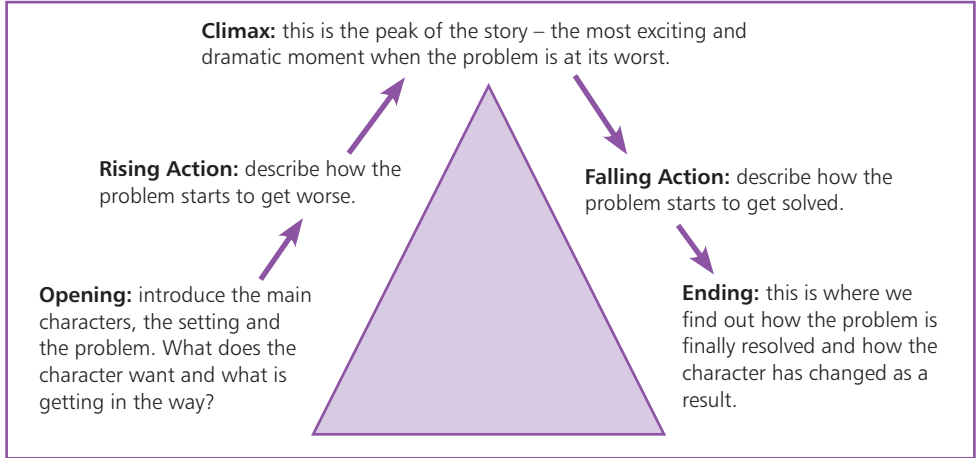
**Vocabulary Challenge:** look up the definitions of these words. How many can you include in your fact file?

Protagonist	Antagonist
Archetype	Allegory
Tyrannical	Valiant
Vengeful	Wrath
Glory	Heroism
Morality	

## Activity 18 English

## Story Structures

All good writers plan their stories carefully before they start writing. One of the ways you can do this is to use a 'story mountain' to help you structure the plot.



**Climax:** .....

.....

**Rising Action:** .....

.....

.....

.....

**Falling Action:** .....

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.....

.....

**Opening:** .....

.....

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.....

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**Ending:** .....

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# Year 6 – Year 7 Transition

## Activity 19 English

## Gothic Writing

In year 7, you will study a Gothic novel called 'The Woman in Black' by Susan Hill. Here is a taster:

Esme leaned over towards me. 'They are telling ghost stories.'

'Yes,' said Will, his voice unsteady with both excitement and laughter. 'Just the thing for Christmas Eve. It's an ancient tradition!'

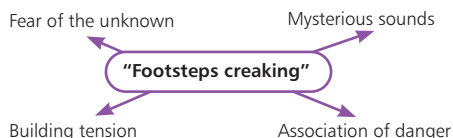
'The lonely country house, the guests huddled around the fireside in a darkened room, the wind howling at the casement...' Oliver moaned again.

And then came Aubrey's stolid, good-humoured tones. 'Better get on with it then.' And so they did, Oliver, Edmund and Will vying with one another to tell the horriddest, most spine-chilling tale, with much dramatic effect and mock-terrified shrieking. They outdid one another in the far extremes of inventiveness, piling agony upon agony. They told of dripping stone walls in uninhabited castles and of ivy-clad monastery ruins by moonlight, of locked inner rooms and secret dungeons, dank chancel houses and over-grown graveyards, of footsteps creaking upon staircases and fingers tapping at casements, of howlings and shriekings, groanings and scuttlings and the clanking of chains, of hooded monks and headless horsemen, swirling mists and sudden winds, insubstantial spectres and sheeted creatures, vampires and bloodhounds, bats and rats and spiders, of men found at dawn and women turned white-haired and raving lunatic, and of vanished corpses and curses upon heirs. The stories grew more and more lurid, wilder and sillier, and soon the gasps and cries merged into fits of choking laughter, as each one, even gentle Isobel, contributed more ghastly detail.

At first, I was amused, indulgent, but as I sat on, listening, in the firelight, I began to feel set apart from them all, an outsider to their circle. I was trying to suppress my mounting unease, to hold back the rising flood of memory.

**Which words and phrases does the writer use to create a frightening tone?** Underline these in the extract. Then pick out the most frightening words and phrases, and mind map the associations and effects of each one.

**Example:**



### Activity 20 English

## Creative Writing

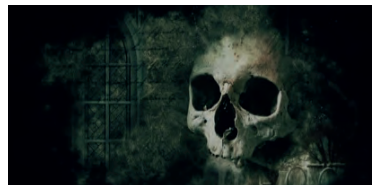
Get inspired by the Gothic extract from Susan Hill's 'The Woman in Black' in Activity 19 and write your own terrifying tale!

Before you start, use a thesaurus (or online thesaurus) to look up the most spine-chilling vocabulary to include in your narrative. You can magpie words and phrases from 'The Woman in Black'.

<b>SCARY</b> <i>Interesting and effective words that give you goosebumps!</i>	<b>HORRIFYING</b> <i>Varied and thoughtful words that send shivers down your spine!</i>	<b>MORTIFYING</b> <i>Ambitious and imaginative words that take your breath away!</i>

### Writing Checklist

- ✓ Plan before you start – you could create a story mountain
- ✓ Focus on the five senses
- ✓ Use exciting and ambitious vocabulary
- ✓ Use show, don't tell to describe the characters' feelings
- ✓ Check your spellings, punctuation and grammar carefully
- ✓ Use techniques such as alliteration, metaphors and similes



# Year 6 – Year 7 Transition

Activity 21

Science

## Living or Non-Living?

You all know what the word ‘living’ means, it means something is alive! Non-living means it is not. But how easy is it to tell if something is non-living or living? Describing something as living or non-living is one of the ways in which scientists classify things; it helps them put things into groups so that they can be studied.

*Here is a picture of a jungle scene. In the jungle there are many things that are living and many things that are non-living.*



**Task:** Use the picture and your own knowledge to think of as many living and non-living things and list them in the table below.

Living Things	Non-Living things

Good job! Now see if you can answer the True or False statements below about living and non-living things. Write True or False next to each statement.

Statements:

- 1. All living things move.
- 2. Non-living things are sensitive to sound, smell, touch and heat.....
- 3. All living things can reproduce. .
- 4. Non-living things can reproduce.....
- 5. All living things need nutrition (a source of food) to live..
- 6. All non-living things produce waste.....
- 7. All living things produce waste.....

Now that you know what the difference between a living and a non-living thing is, try putting things into groups at home.

**Task:** Look in your garden or your house. How many things can you find that are living and how many that are non-living? Draw a table in the space below to list them.



# Year 6 – Year 7 Transition

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Living things live in places called habitats. A habitat is where something alive lives. An ecosystem is a group of living and non-living things in a place.

**1. Research an ecosystem and draw what it might look like below.**

This could be a rainforest, a desert, an African savannah, a coral reef...

**2. Label the living and non-living parts of the ecosystem**

**3. Label which living things are predators and which are prey. Can you label a whole food chain?**



**Extra Challenge – Get Creative!**

Bake a cake with an adult and decorate it as an ecosystem to show living and non-living things. Take a picture of your design, print it and stick it here, next to this woodland one.

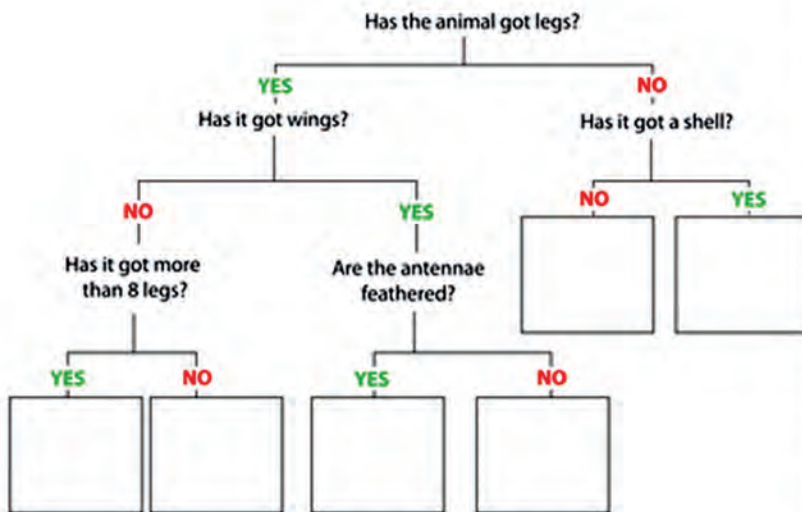


## Activity 22 Science

# Making a Key

Keys can be useful for identifying things. They are often used in science to figure out what an unknown thing is.

*This is an example of a key that someone might use to identify an insect in the garden.*



**Task:** Draw or cut out the insects and stick them into the correct boxes on the key.

On the next page is a selection of 'space invaders'

1. Name the space invaders and see if you can create a key to identify them (you can do this with just a few or all of them if you want a challenge).
2. The space invaders have come from outer space! Choose one planet and make a poster/ fact file on it. This can contain information about its; size, atmosphere, temperature, orbit, moons and anything else that you might find interesting.

# Year 6 – Year 7 Transition



My Space Invaders Key:



# Measurements

When completing science lessons, we use a lot of tools to measure things we are investigating so that we can collect data.

*In this task you will be looking to see how hard it is to measure 'time' with a stop watch or something similar (you can use your phones stop watch for this).*

*You will perform 4 tasks and get someone to measure the time it takes for you to do this (or you can try and measure the time yourself).*

**Task 1:** Run a set distance e.g. the length of your garden. Do this three times and record the time it takes you to do it each time.

**Task 2:** Say the alphabet from start to finish. Do this three times and record the time it takes you to do it each time.

**Task 3:** Record the time it takes a toy car to go down a ramp. Do this three times and record the time it takes the car to go down the ramp each time.

**Task 4:** Record the time it takes you to write the word 'seconds' ten times. Do this three times and record the time it takes you to do it each time.

Task	Time taken for task to be complete (s)		
	Trial One	Trial Two	Trial Three
Running			
Alphabet			
Toy Car			
Writing			

**Question:** Was the time the same for each task every time?

.....

**Question:** Why do you think this is? What is difficult about measuring time with a stop watch?

.....

.....

.....

# Year 6 – Year 7 Transition

## Activity 24 Science

# The Floating Candle Experiment

Try the following method:

1. Pour some water on a small dish so that it is nearly full.
2. Place a tea light candle on the water in the middle of the dish and light it (with adult supervision).
3. Place a glass over the candle.
4. Watch!

*This is what your experiment should look like:*



**Question:** What happens to the water and the candle as it burns with the glass over the top of it?

.....

.....

**Research:** Why does this happen to the candle? See if you can find the answer online, or come up with your own explanation. Hint: Pressure!

.....

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## Activity 25 Science

# Elastic Powered Boat

### Equipment:

- Rubber band
- Scissors
- Marker pen (decoration)
- Ruler
- Ice cream sticks
- Glue
- You can also use; milk cartons, plastic lids etc anything that will float.

### Method

**Step one:** Make the frame of the boat by gluing the sticks together as shown below. Make sure you allow the glue to fully dry.



**Step Two:** Attach the rubber band to the design as shown below, by stretching it over the free ends.



**Step Three:** Attach the propeller to the rubber band as shown below. You may need to glue it in place.



**Step Four:** Wind the boat up by rotating the propeller and see how far it can travel/ how fast it moves across a filled bath or sink.

**Challenge:** See how complicated you can make your design, or make more than one design and carry out an investigation.

Boat	Time taken for task to be complete (s)			Average (cm)
	Trial One	Trial Two	Trial Three	
Design Two				
Design Three				

**Question:** How would you make sure the investigation was a fair test?

.....

.....

**Question:** Which of the designs travelled the furthest?

.....

**Question:** Why do you think this is?

.....

.....

.....

## Year 6 – Year 7 Transition

**NOTES:**

[illegible]





Friendship  
Integrity Benevolence  
Honesty Equality  
Respect Community  
Tolerance Aspiration  
**Our values**  
Humility Personal responsibility  
Justice Dignity Ambition  
Co-operation Humanity  
Excellence Embracing diversity  
Belief Empathy Kindness  
Understanding Charity  
Compassion



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