My Knowledge Journal

Sound

Name: _____

Pre Knowledge Quiz

Question 1: How does sound travel?	Start of unit:	End of unit:
In a straight line		
In a curvy line		
As a series of vibrations		
By making a noise		

Question 2: Sound travels...	Start of unit:	End of unit:
slower than the speed of light		
at the same speed as light		
faster than the speed of light		

Question 3: The volume of sound is measured in...	Start of unit:	End of unit:
decibels		
centimetres		
kilograms		
miles		

Question 4: Sounds gets louder... (tick 2)	Start of unit:	End of unit:
as we move further away from the source		
as we move closer to the source		
the less energy there is when creating the sound		
the more energy there is when creating the sound		

Question 5: On a stringed musical instrument, the pitch can be changed by...	Start of unit:	End of unit:
hitting the string harder		
hitting the string softer		
tightening the string		
loosening the string		

Question 6: The origin of the sound is called the...	Start of unit:	End of unit:
noise		
source		
vibration		
frequency		

Question 7: The pitch of a sound describes...	Start of unit:	End of unit:
how fast or slow a sound is		
how loud or quiet a sound is		
how low or high a sound is		

Question 8: When a sound hits the ear...	Start of unit:	End of unit:
nothing vibrates		
the whole ear vibrates		
the eardrums vibrate		
the brain vibrates		

Question 9: Sound can travel through...	Start of unit:	End of unit:
the air		
water		
the floor		
all of the above		

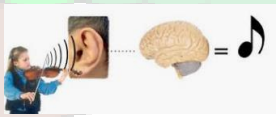
Question 10: A pupil blows through two different length straws. Which statement is true?	Start of unit:	End of unit:
The shorter straw will make a higher-pitched sound.		
The shorter straw will make a louder sound.		
The longer straw will make a higher-pitched sound.		
The longer straw will make a louder sound.		

Sound Knowledge Organiser

Key Vocabulary

sound waves	Invisible waves that travel through air, water and solid objects as vibrations.
vibrations	Invisible waves that move quickly.
travel	How something moves around.
volume	How loud or quiet a sound of something is.
decibel	A measure of how loud a sound is.
amplitude	A measure of the strength of a sound wave.
frequency	A measure of how many times per second the sound wave cycles.
source	Where something comes from.
transmit	How something moves around.
energy	The power from sources such as electricity that makes machines work or provided heat.
electricity	A form of energy that can be carried by wires and is used for heating and lighting and to provide power for devices.
medium	Something that makes possible the transfer of energy from one location to another.
pitch	How high or low a sound is.

Key Questions and Facts

What is a sound?	• A **sound** can be heard. • The object that makes the sound is called the **source**.
How is a sound made? 	• When objects **vibrate** a sound is made. • The **vibration** makes the air around the object vibrate and the air vibration enters your ear. These are called **sound waves**. • If an object is making a sound a part of it is vibrating, even if you cannot see the vibrations.
How does sound travel?	• **Sound waves** travel through a medium (such as air, water, glass, stone and brick). • If someone is playing music next door the sound can travel through the bricks/stone in the walls
How do we hear sounds? 	• When an object vibrates, the air around it **vibrates** too. This vibrating air can also be known as **sound waves.** • The **sound waves** travel to the ear and make the eardrums **vibrate**. • Messages are sent to the brain which recognises the **vibrations** as sounds.
How does sound change?	**Pitch:** • The pitch of a sound is how high or low it is. **Volume** • The volume of sound is how loud or quiet it is. • When sound is created by a little amount of energy, a weak sound wave is created which doesn't travel far. This makes it quiet • A **vibration** with lots of **energy** makes a powerful **sound wave** and therefore a loud sound.
How do we measure sound?	Sound is measured in **decibels**, **amplitude** and **frequency**.

Diagrams

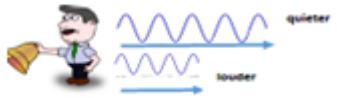
- **High Pitch sounds are created by short sound waves**

Long sound waves create a low pitch

- **Low pitch sounds are created by long sound waves**

Short sound waves create a high pitch

- **The closer you are to the source of the sound, the louder the sound will be**
- **The further away you are from the source of sound, the quieter the sound will be.**



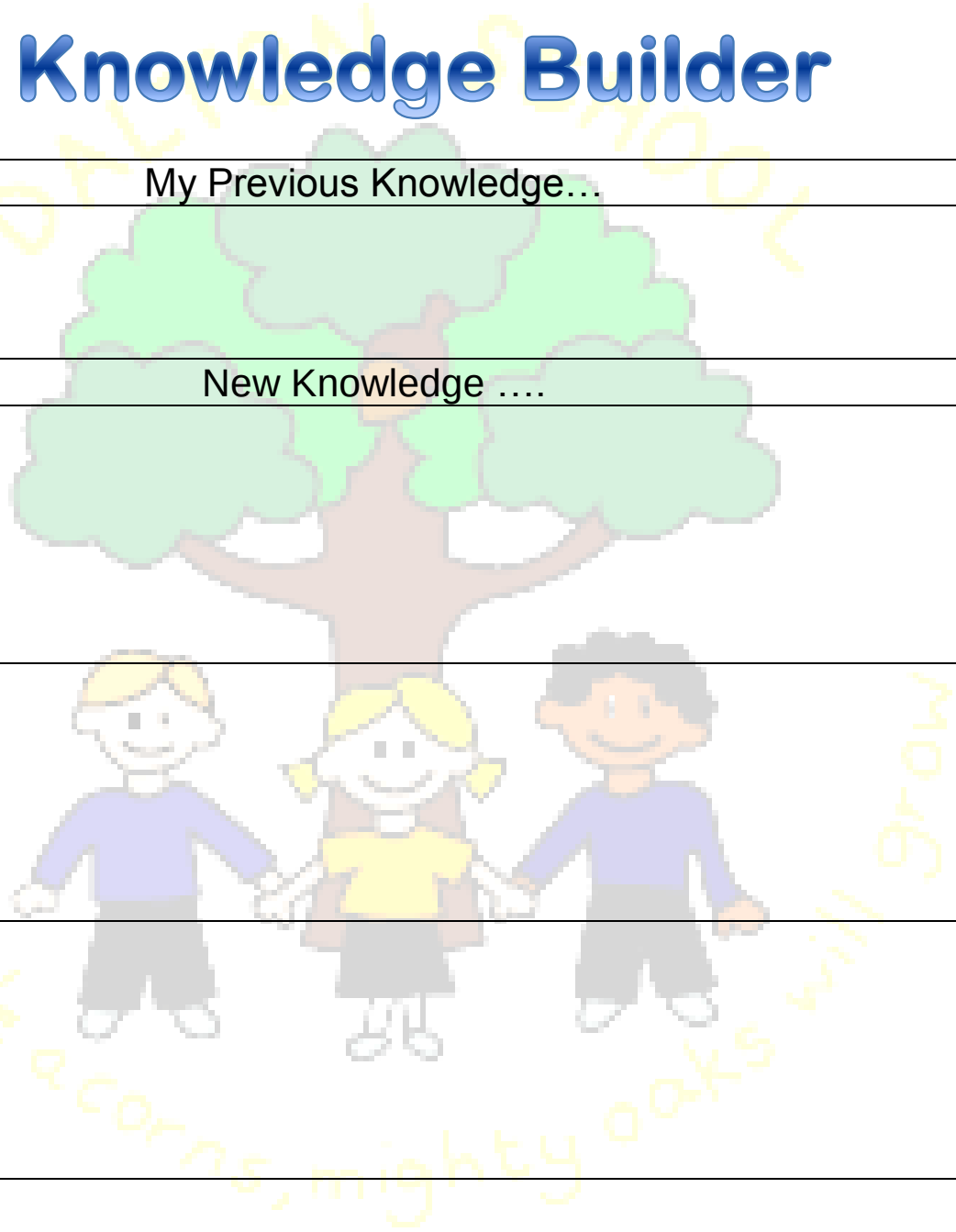
What should I already know?

- Hearing is part of my five senses

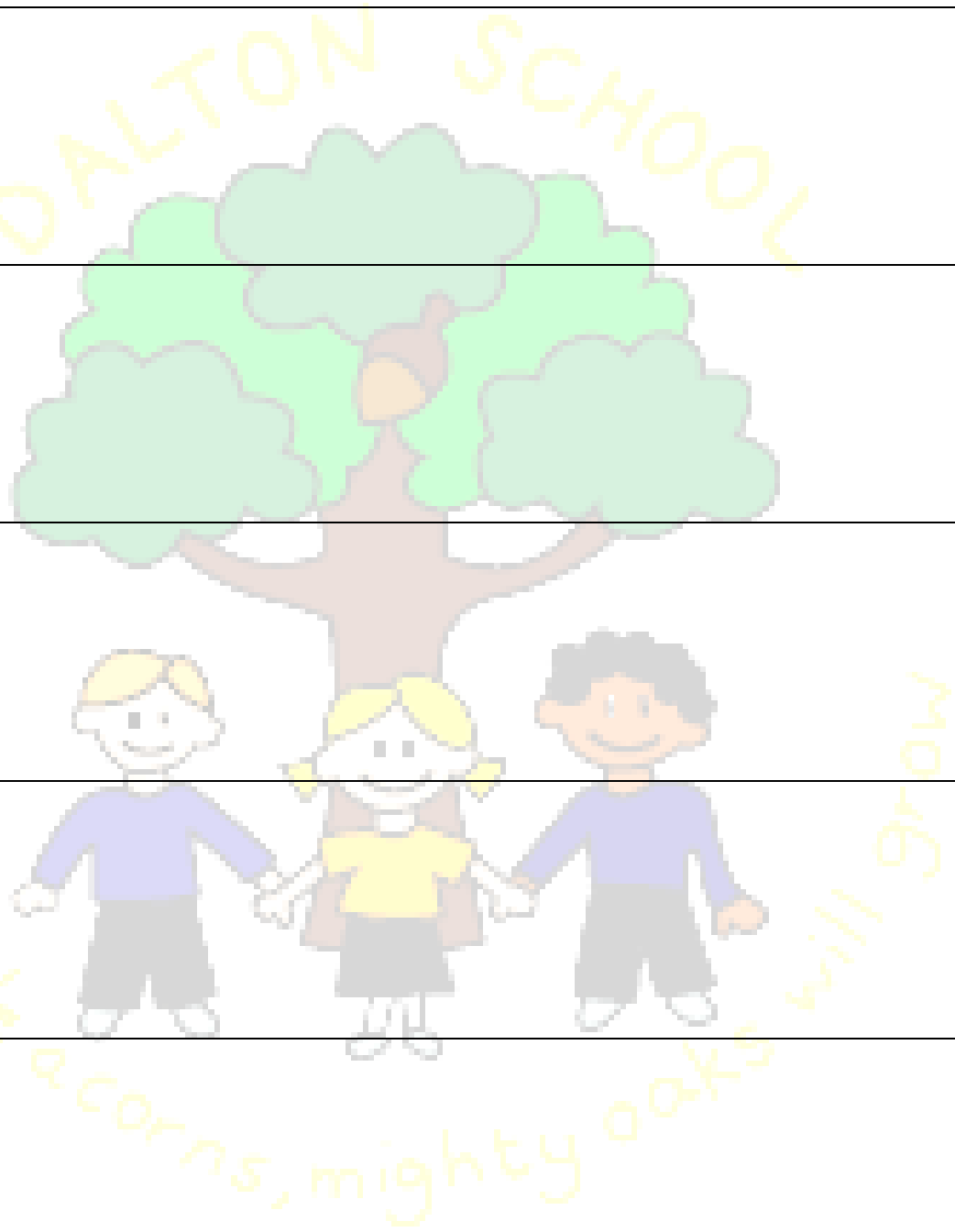
- Sounds can be combined using musical instruments

My Knowledge Builder

My Previous Knowledge…	
New Knowledge ….	
Week 1	• • •
Week 2	• • •
Week 3	• • •



Week 4	• • •
Week 5	• • •
Week 6	• • •
Week 7	• • •



Post Knowledge Quiz

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