

Values education Year 1

God is Truth

Finding out what is true

(Life-long learning)

To find out what is true we need to ...

- Listen to others
- Learn from people who know what is true
- Find out what the Bible says about the things we are learning

How could you find out if the following things are true?

A friend tells you that there is no school tomorrow, but you haven't heard about it.

(Ask your teacher)

A friend tells you that fizzy drinks do not rot your teeth. (Ask a dentist)

Your Sunday School teacher tells you that God made the world. (Listen to, or read what God says in the Bible.)

Your teacher tells you that an apple will float in water. (Do an experiment.)

Your teacher tells you that a nail will stick to a magnet but sand will not. (Do an experiment with a magnet and find out.)

How else can we find out what is true?

Use our five senses: sight (eyes); hearing (ears); smell (nose); touch (fingers); tongue (taste)

We can also use our brain to think carefully about whether something is true or not true.

Discussion

Who should we believe?

What is the problem with believing everything?

Bible passages

- Proverbs 2:6 Only the Lord gives wisdom. Knowledge and understanding come from Him.
- Matthew 7:13-14 The broad and narrow way.
- John 14:6-7 I am the way, the truth, the life.
- Acts 4:12 There is no other name by which we are saved.
- John 10:1-18 The Good Shepherd.
- Matthew 7:15-21 Wolves in sheep's clothing.
- John 18:37 Everyone that is of the truth hears my voice.

Practical Science Year 1

God is Truth

Topic: Exploring materials

Sink or Float?

Sometimes the best way to find out if something will sink or float is just to try it. Gather up some objects from around your house to test their sinking or floating abilities. Make sure all of the items you pick can get wet!

What You Need:

- a large container of water (use a bucket, or fill up a sink)
- lots of small objects of different weights and materials (plastic, metal, wood, foil, Styrofoam)
- a few larger objects
- worksheet
- pen

What You Do:

- Look at the objects you collected. Draw a picture of each one in the boxes on the left side of the worksheet.
- Make a prediction about each object - do you think it will sink or float in the water? (To make a prediction means to say what you think will happen.) Mark your prediction on the worksheet for each item (circle float or sink).
- Drop the objects into the water one at a time. Watch what happens to each one. Did you predict correctly? Circle "float" or "sink" next to each object on the sheet to show the results of your experiment.

What Happened:

Even though some of your items seemed very light (things like a paperclip or a button), they still sank in the water. Some objects that might have seemed sort of heavy (like a wooden block) probably floated. That is because whether an object sinks or floats in water doesn't just depend on its weight or size. It also depends on its density. Density is a measure of how solid something is. All things are made up of tiny particles called molecules. If the molecules inside an object are very close together, the item is solid, or dense. If the molecules are farther away from each other, the object is less dense, or less solid. An example of a very dense item is a penny. A cork is less dense.

A coin, paperclip, or button sank because the materials they are made of (metal or plastic) had more density than water. (Their molecules are closer together than water molecules are.) A cork, piece of wood, or Styrofoam floated because those materials have less density than water. All the objects that were less dense than water floated in the water! Objects that had more density than the water sank.

<http://www.hometrainingtools.com/a/sink-and-float-science-projects>

Practical Science Year 1

Topic: Exploring Materials

Does an Orange Float or Sink?

Does an orange float or sink when placed in water? Seems like a fairly straight forward question, but is it? Give this fun density science experiment for kids a try and answer the question while learning a unique characteristic of oranges.

What you'll need:

- An orange
- A deep bowl or container
- Water

Instructions:

1. Fill the bowl with water.
2. Put the orange in the water and watch what happens.
3. Peel the rind from the orange and try the experiment again, what happens this time?

What's happening?

The first time you put the orange in the bowl of water it probably floated on the surface, after you removed the rind however, it probably sunk to the bottom, why?

The rind of an orange is full of tiny air pockets which help give it a lower density than water, making it float to the surface. Removing the rind (and all the air pockets) from the orange increases its density higher than that of water, making it sink.

Density is the mass of an object relative to its volume. Objects with a lot of matter in a certain volume have a high density, while objects with a small amount of matter in the same volume have a low density.

<http://www.sciencekids.co.nz/experiments/orangefloatorsink.html>

Practical Science Year 1

Topic: Exploring materials

Magnets

What you need:

- Clear plastic container
- Magnet
- Metal objects like hair pins, nuts and bolts, paper clips and pipe cleaners
- Non-metal objects like pencils, paper, cardboard, or objects made of plastic or glass

Directions:

- Place the collection of metal and non-metal objects into the container.
 - Allow the students to take turns using a magnet. Allow them to experiment with free play.
 - Then ask them to predict which objects will stick to the magnet.
 - Why did the pipe cleaners stick to the magnet?
 - Help them to draw conclusions.
 - Record results
-
- Place ONLY iron objects in a flat glass dish.
 - Hold up the dish and ask them to move objects along holding the magnet under the glass.
 - Help them to draw conclusions.
 - Record results

Why does it happen?

A magnet gives out a magnetic field (a force) that attracts certain metals: iron, cobalt, nickel.

<http://www.schoolofdragons.com/how-to-train-your-dragon/science-activities/science-activities-kindergarten>

Further extension:

Were some objects too heavy for the magnet?

A magnet can be weak or strong. What does this mean?

Make your own magnet

You can make a magnet from your (permanent) magnet.

Take a nail and rub it over the magnet in one direction 50 times.

See if it picks up paper clips.

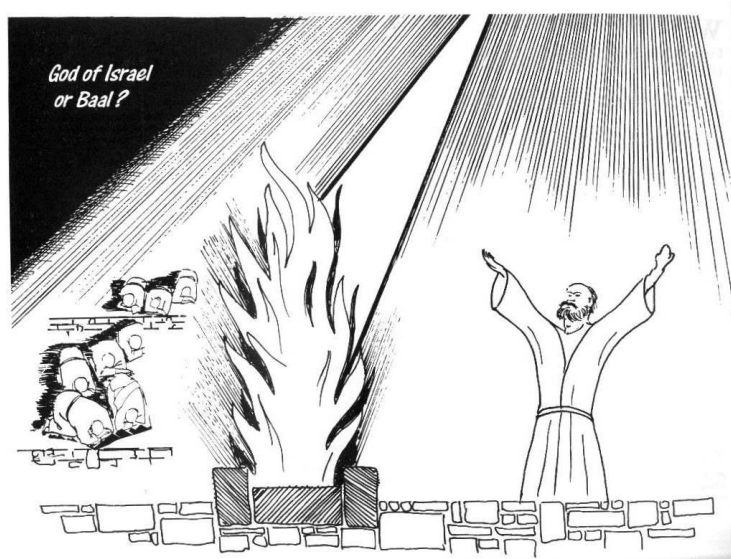
Art Year 1

God is Truth

Topic: Exploring materials

Biblical connection: We can use our five senses to find out about materials. We can use our five senses to find out whether something is true or not true.

Bible art as a wall display: 1 Kings 18:1-40 Elijah and the prophets of Baal. Make a mural of the two stone altars, one without fire and one with fire. "Who is the true God?"



1. Exploring the properties of clay

- What can you do with a lump of clay?
- Use the finger and thumb to pinch it.
- Press into it with knuckles.
- Roll it into a ball
- Pull it apart, join it back together, stretch it, flatten it
- Make a hollow in the lump.
- Create the following shapes: tall, thin, round, fat, flat, curled, wide, twisted, short.
- Make a snake.

1. Explore the properties of paint

- Thick paint, (thickened with flour or starch)
- Thin paint can be blown with a straw

2. Explore the properties of paper

Students can experiment with the following techniques using cut paper to build up a picture:

- Cutting paper strips
 - Coiling paper strips
 - Fringing
 - Making a fan (concertina folding)
 - Making a coil (cutting around and around a circle shape in a snail shell formation)
- #### 3. Explore the properties of construction materials such as cardboard, plastic and wooden sticks.

Thinking Skills

Magnets 1

The family knives and forks have fallen into a pile of rubbish. Invent a machine that will separate and sort out the knives and forks from the rubbish.

Magnets 2

You have been locked out of the house and the spare key is inside on the key rack. Work out how to get into the house using:

- a magnet
- a broom
- a piece of wire

Magnets 3

Find 5 things in common between:

a magnet

and

a drink bottle

Magnets 4

Find 10 different uses for a magnet.

Magnets 5

Invent a game that uses a magnet on a piece of string.

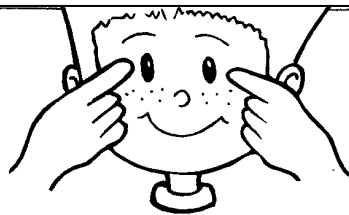
Magnets 6

Design a new magnetic toy by combining:

- a magnet
- and
- a steel can

Use your 5 senses to find out what is true: Your Eyes

You see with your eyes.
Use your eyes to help you
with these activities.



1. Tick eight things that begin with 's'.
2. Circle three things that rhyme with 'see'.
3. Put a cross next to three things that end in 'sh'.
4. Write three things that begin with 'fr'.

5. Can you find me in the picture?



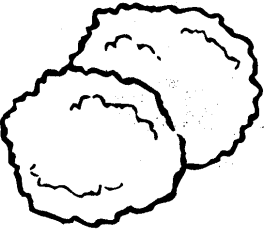
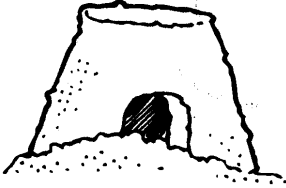
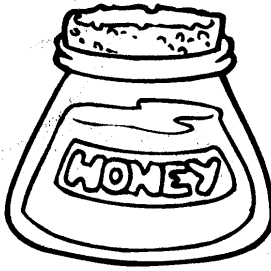
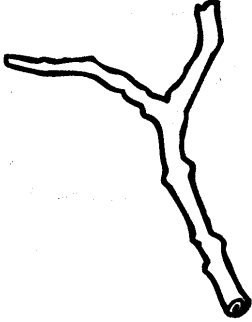

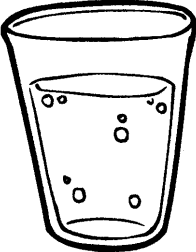
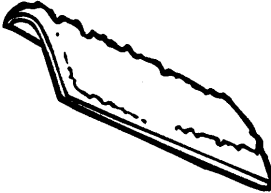
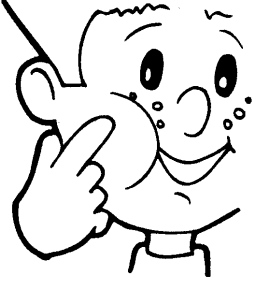
Use your five senses to find out what is true: Your nose

Do these things smell nice or nasty? Make a list.



Use your five senses to find out what is true: Your fingers

How do these things feel?

<i>cotton wool</i> 	<i>sand</i> 	<i>honey</i> 	<i>stick</i> 
<i>golf ball</i> 	<i>water</i> 	<i>sandpaper</i> 	<i>your cheek</i> 

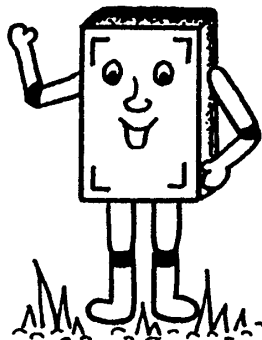
<i>hard</i>	<i>soft</i>	<i>fluffy</i>	<i>wet</i>	<i>dry</i>
<i>smooth</i>	<i>rough</i>	<i>prickly</i>	<i>sticky</i>	<i>pointy</i>

Sense of touch

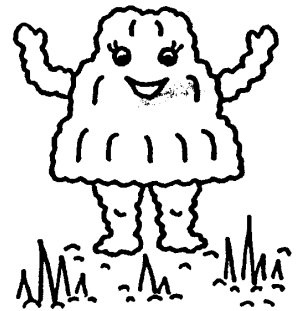
Sort these out into hard or soft

rock skin brick wool jelly car
cloud marble cake glass wood hair

I'm hard.



I'm soft.



Here are more *opposites*. Match the pairs.

hot

wet

rough

warm

sharp

straight

light

blunt

cool

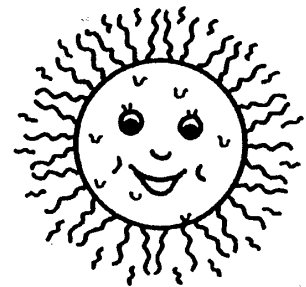
dry

smooth

crooked

cold

heavy

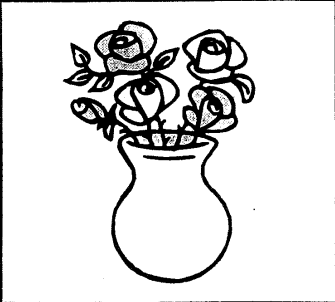
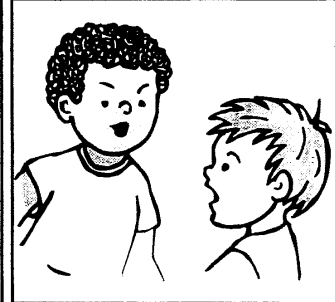
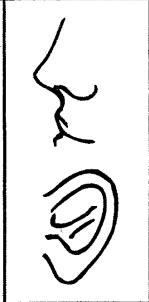

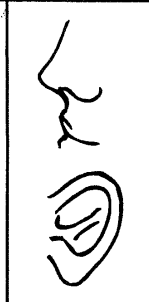
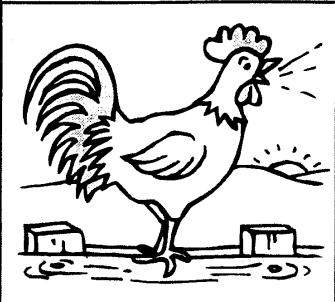

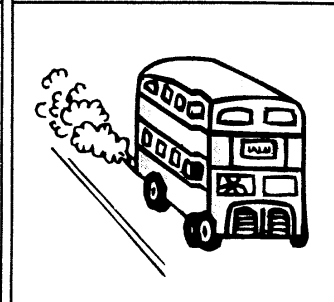

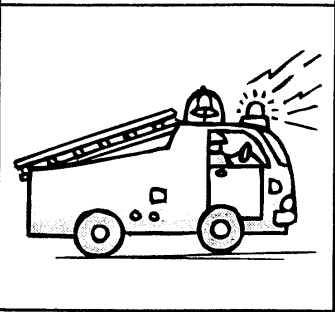
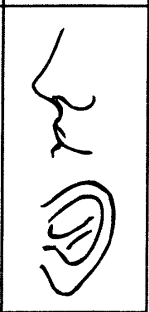



On the back draw pictures of the pairs of opposite things.

Sense of hearing

Sense of touch

Sort out these pictures into hearing or touch.



Sense of **taste**

Circle the items you can taste.



taste



My tongue can taste.

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