



Looking at the Earth

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time

60 minutes

learning outcomes

To:

- know that the Earth looks flat on maps
- work with Google Maps
- use internet
- interpret maps

materials needed

- 12 computers with internet
- globe
- maps of the world

Tip. Instead of the children using computers, you can print some maps from Google Maps. The children can use these printed maps to work from.

Preparation

For the activity **What can you see?** you will need a copy of a map of the world. You will also need a globe. For the activity **Explore the Earth** set up the computers to show the internet page of Google Maps.



What can you see? 10 min.

Move the chairs to the side of the classroom and organise the children into pairs. For Task 1 on the worksheet, child 2 stands opposite child 1 and child 1 draws his/her portrait (frontal view). Then child 2 sits on the ground and child 1 draws him/her as seen from above. The children swap roles and repeat the task. Ask the following questions: What is the difference between the two drawings? Can you recognise the child in the second drawing? Why does the same child look so different? Come to the conclusion that you can look at an object from various viewpoints. This means it will look different every time.

Give everyone a map of the world. Ask what the difference is between a map and a globe. Can you make a globe from a map? Encourage the children to roll up their map to form a tube. Does the map look the same as the globe now? Why not? How do people know what the world looks like. Explain that we now have satellites orbiting the Earth. These satellites can take photographs of the planet.



The children investigate what the Earth looks like when viewed from above.



Explore the Earth 40 min.

The children complete Task 2 a to h on the worksheet. Explain that the photographs they can see were taken from satellites or aircraft. Discuss the task. Come to the conclusion that the blue is water, the green is grass and forest, red and grey are houses, and grey is roads. Make sure the children realise that everything is seen from above. The rectangular shapes on the road are cars.



Explain that people use Earth observation satellites to look at the world from above. This means you can only see the top of things and people.

Discuss the example from the activity **What can you see?** The children looked very different seen from above than from the front. The children complete Task 2 i and j.



Different satellites 10 min.

Explain to the children that there are different kinds of satellites. Ask if anyone can name a different sort of satellite besides the Earth observation satellites. Encourage the children to search on the internet to find out what kind of things satellites are used for. They can write their findings in Task 3 on the worksheet. Discuss the results.



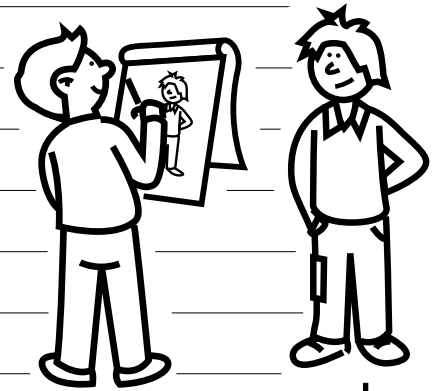
Looking at the Earth

1 What can you see?

a In the box below, draw the front view of your partner who is standing facing you.

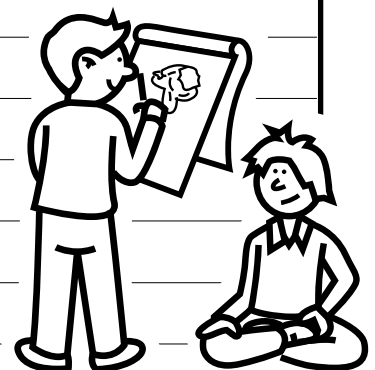


draw your partner
HERE



a In the box below that, draw the top view of your partner who is sitting facing you.

draw your partner
HERE



2 Explore the Earth



1 Go to Google maps.

2 Click on the 'Satellite' button in the top right-hand corner.

3 Go to the search window and type the name of your country.

a What are the areas with the following colours?

Blue:

Green:

Grey/red:

Grey:

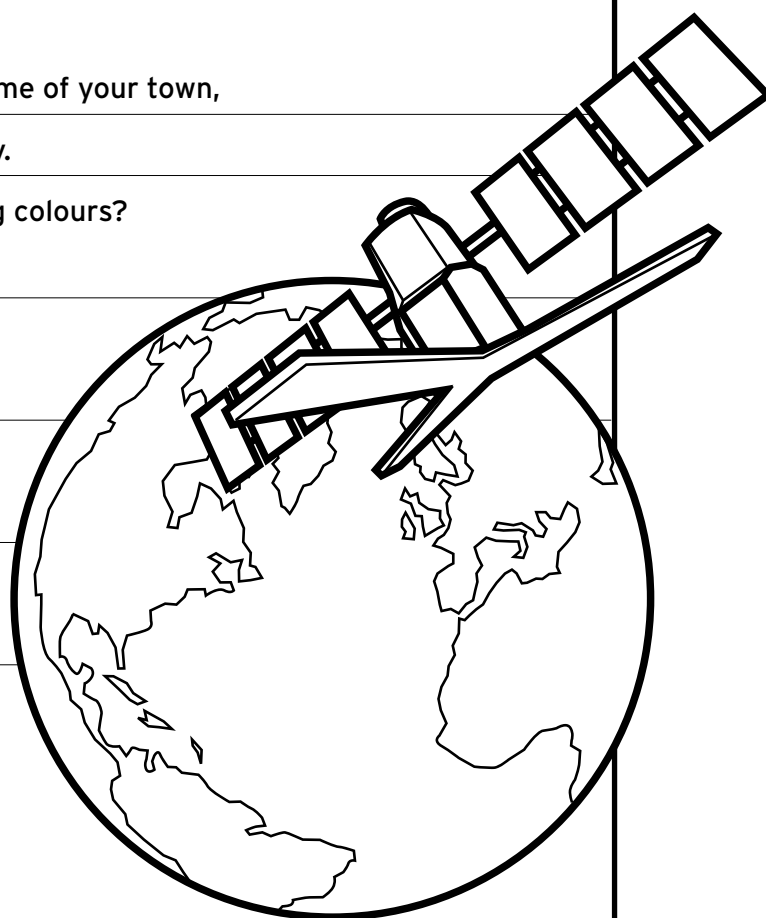
4 In the search window type the name of your town,
followed by the name of your country.

b What are the areas with the following colours?

Green:

Grey:

Red:



	5 Now type the following information in the search window:
	<The street your school is in>, <the town your school is in>, <the country your school is in>.
	Zoom in by moving the sliding bar on the left all the way up to the plus sign.
c	Can you see your school? What part of your school can you see?
d	Search for a street near your school. Zoom all the way in by moving the sliding bar all the way up to the plus sign again. What can you see on the street?
e	What part of it can you see?
f	Zoom all the way out by moving the sliding bar all the way down to the minus sign. What can you see?
g	Drag the image by moving your mouse to the left. How often do you see the United States of America passing?
h	Drag the image by moving your mouse to the left again. Explain why you can keep dragging the image without getting to the end.

i

What can you see on Earth when you look down from above?



j

How are the images of the Earth made?

3

Different satellites



In the spaces below, write down the different sorts of satellite you found using the internet.

You should also write what they are used for. Mention at least three.

1

2

3

...

...