

FACES OF THREE-DIMENSIONAL OBJECTS ARE TWO-DIMENSIONAL SHAPES.

INVESTIGATIONS OVERVIEW PAGE

THIS PAGE IS A SUMMARY OF THE INVESTIGATIONS THAT STUDENTS MAY ENGAGE IN TO DEEPEN THEIR RELATIONAL UNDERSTANDING. INVESTIGATIONS WITH INSTRUCTIONS TO STUDENTS FOLLOW ON SUBSEQUENT PAGES.

- Children sit in pairs or small groups. They select three-dimensional objects. They sort the objects into flat and curved surfaces. They select an object with flat surfaces including prisms and non-prisms. They identify the shape of each flat surface. They identify whether the flat surface is a face. They identify whether the three-dimensional object is a prism. They identify the flat surfaces on three-dimensional objects are two-dimensional shapes. *Reflection: How can we describe the surfaces of three-dimensional objects as two-dimensional shapes?*
- In pairs or small groups, children have a selection of prisms. They describe the faces as a two-dimensional shapes. They describe the flat surfaces with straight lines as faces and name their shape a prism. *Reflection: How can we describe the surfaces of three-dimensional objects as two-dimensional shapes?*
- In pairs or small groups, children have a selection of non-prisms (cone, cylinder, sphere). They describe the flat surfaces as two-dimensional shapes. They describe the flat surfaces and curved lines as flat surfaces. They describe the curved lines as curved lines. *Reflection: How can we describe the surfaces of three-dimensional objects as two-dimensional shapes?*
- In pairs or small groups, children have a bag in which an object has been placed. A child places their hand into the bag and describes the object, including its surfaces as two-dimensional shapes. They name their object a prism or non-prism. The other child / children suggest what object it could be. *Reflection: How can we describe the surfaces of three-dimensional objects as two-dimensional shapes?*
- In pairs or small groups, children have a group of objects. One child describes the surfaces of one of the objects as two-dimensional shapes. They name the object a prism or non-prism. The other child / children select it from the group. *Reflection: How can we describe the surfaces of three-dimensional objects as two-dimensional shapes?*
- In pairs or small groups, children make models of three-dimensional objects out of modelling clay, play dough or plasticine. They draw the models. They describe the surfaces of their object as two-dimensional shapes. They name their object a prism or non-prism. *Reflection: How can we describe the surfaces of three-dimensional objects as two-dimensional shapes?*

Faces of Three-dimensional Objects are Two-dimensional Shapes.

Sit in pairs or small groups.

Select three-dimensional objects.

Sort the objects into flat and curved surfaces.

Select an object with flat surfaces including prisms and non-prisms.

Identify the shape of each flat surface.

Identify whether the flat surface is a face.

Identify whether the three-dimensional object is a prism.

Identify the flat surfaces on three-dimensional objects are two-dimensional shapes.

Reflection: How can we describe the surfaces of three-dimensional objects as two-dimensional shapes?

Faces of Three-dimensional Objects are Two-dimensional Shapes.

Have a selection of prisms.

Describe the faces as a two-dimensional shapes.

Describe the flat surfaces with straight lines as faces.

Is your shape a prism or non-prism?

Reflection: How can we describe the surfaces of three-dimensional objects as two-dimensional shapes?

Faces of Three-dimensional Objects are Two-dimensional Shapes.

Have a selection of non-prisms (cone, cylinder, sphere).

Describe the flat surfaces as two-dimensional shapes.

Describe the flat surfaces and curved lines as flat surfaces.

Describe the curved lines as curved lines.

Is your shape a prism or non-prism?

Reflection: How can we describe the surfaces of three-dimensional objects as two-dimensional shapes?

Faces of Three-dimensional Objects are Two-dimensional Shapes.

Sit in pairs or small groups.

Have a bag in which an object has been placed.

One child:

- places their hand into the bag and describes the object, including its surfaces as two-dimensional shapes.
- names their object a prism or non-prism.

The other child / children suggest what object it could be.

Reflection: How can we describe the surfaces of three-dimensional objects as two-dimensional shapes?

Faces of Three-dimensional Objects are Two-dimensional Shapes.

Sit with some friends.

Have some objects.

Take turns to describe the surfaces of one of the objects as two-dimensional shapes without touching the object, naming the object a prism or non-prism.

The friends suggest what object it could be.

Reflection: How can we describe the surfaces of three-dimensional objects as two-dimensional shapes?

Faces of Three-dimensional Objects are Two-dimensional Shapes.

Make models of three-dimensional objects out of modelling clay, play dough or plasticine.

Draw the model.

Describe the surfaces of your object as two-dimensional shapes.

Name your object a prism or non-prism.

Reflection: How can we describe the surfaces of three-dimensional objects as two-dimensional shapes?