

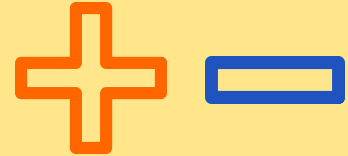
FIRST GRADE ACTIVITY 1 THE POWER OF SPHERES

IKOS in the classroom promote offscreen learning and hands on fun for all grade levels!

OPERATIONS AND ALGEBRAIC THINKING

LEARNING OBJECTIVES:

Math Standard: 1.OA.5 Relate counting to addition and subtraction.



SUPPLIES:

- Resources to be gathered before students arrive:
- IKOS pieces (number depending on how many participants)
 - Addition sheet



OVERVIEW:

Small Group activity – 4-5 students in the group.
Each student will count how many IKOS pieces are needed to make a sphere.
Each student will put a sphere together.
They will then add up all the IKOS pieces to make all the spheres.



EXPLORE:

Ask: How many IKOS pieces are needed to make 4 spheres? (if they have 4 students in the group)



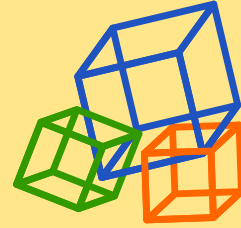
FIRST GRADE ACTIVITY 2 THE POWER OF SPHERES

IKOS in the classroom promote offscreen learning and hands on fun for all grade levels!

OPERATIONS AND ALGEBRAIC THINKING

LEARNING OBJECTIVES:

Math Standard: 1.G.2.b Compose three-dimensional shapes.



SUPPLIES:

Resources to be gathered before students arrive:
- IKOS pieces (number depending on how many participants)



OVERVIEW:

Individual – Students will compose a sphere using the IKOS pieces.



EXPLORE:

Ask: Can you compose a sphere?



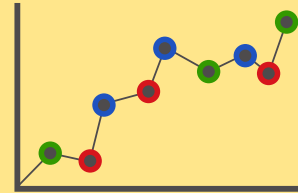
FIRST GRADE ACTIVITY 3 THE POWER OF SPHERES

IKOS in the classroom promote offscreen learning and hands on fun for all grade levels!

MEASUREMENT AND DATA

LEARNING OBJECTIVES:

Math Standard: 1.MD.2 Express the length of an object as a whole number of lengths units, by laying multiple copies of a shorter object (the length unit) end to end.



SUPPLIES:

Resources to be gathered before students arrive:
- IKOS spheres (number depending on how many participants).
- A chart of objects to measure using the sphere.



OVERVIEW:

Students will measure a number of objects to see how many spheres are needed. For example how many sphere are needed in the length of the teachers' desk?

Students will document their measurements of the objects indicated on the chart.

The students will work in small groups.



EXPLORE:

Ask: How many spheres are in the length of ____?



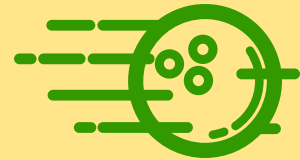
FIRST GRADE ACTIVITY 4 THE POWER OF SPHERES

IKOS in the classroom
promote offscreen
learning and hands on
fun for all grade levels!

PHYSICAL SCIENCE

LEARNING OBJECTIVES:

Standard 3 Objective 1 a. – Describe, classify and communicate observations about the motion of objects.



SUPPLIES:

- Resources to be gathered before students arrive:
- IKOS spheres (number depending on how many participants.
 - Three-dimensional Shapes (cube, cone, pyramid...)
 - Chart to Document Data



OVERVIEW:

Students will take their three-dimensional shapes and communicate what they think will happen with they push their object on the ground from point A to point B.

Students will document the distance and direction each object went.

They will discuss as a whole class if their first guesses were correct or if the objects behaved differently than they expected.



EXPLORE:

Ask: How far will a sphere roll?

How far will a cube roll?

In what directions will each shape travel? (Will they be able to reach point B from point A?)



FIRST GRADE ACTIVITY 5 THE POWER OF SPHERES

IKOS in the classroom promote offscreen learning and hands on fun for all grade levels!

PHYSICAL SCIENCE

LEARNING OBJECTIVES:

Standard 3 Objective 2 b. – Predictable measurable properties....whether objects sink or float.



SUPPLIES:

- Resources to be gathered before students arrive:
- IKOS spheres (number depending on how many participants).
 - Other objects to be tested if they sink or float (office supplies, fruit, other shapes...)
 - Chart to Document Data



OVERVIEW:

Whole Class Activity – Sink/Float
Teacher will hold up an object and ask the students if they think it will sink or float.
Students will write down on their chart what they predict (sink or float).
Teacher will put object in the water and show the students that it sinks or floats.
Students will write down what occurred.
This will be repeated with many objects including the IKOS sphere and it's separate pieces.
Teacher will ask, "Why ____ floated or sank?"



EXPLORE:

Ask: Will this sink or float?
Why?

