LESSON PLANS: ALBERTA

Grade 2: Shape and Space



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General Outcome:

• Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.

Specific Outcomes:

- Describe, compare, and construct 3-D objects, including:
 - Cubes
 - Spheres
 - Cones
 - Cylinders
 - Pyramids

Introduction to Lesson



Teacher Background:

Prompt the question to your students, "What does three dimensional mean?" This will allow students to bring their prior knowledge. You can also have students fill out a KWL chart for further extension. On your interactive whiteboard, go to

Mathletics Teacher Console > Demonstrations > Concept Search.

Click on Animated Maths Dictionary and search three dimensional. Discuss with students the definition and the picture that is displayed. Click back on Concept Search within the Demonstrations tab and click on the icon Concept Search. Search 3D objects in the Search field on the top left side. It will bring up a few different slides. Click on the first slide displaying multiple objects. There are ten slides here and not all will apply to the lesson (The applicable slides are 2, 3, 5, and 7.). To further the extension teachers can search each object in the search field.

Ask students for further extension:

- What objects in the classroom have the same shape?
- How are these shapes similar or different?
- Why do you think these are 3D shapes?
- How are they different from 2D shapes?
- What could these shapes be used for (buildings, household products)?

III. ITEMS NEEDED

- ✓ Interactive whiteboard
- ✓ Mathletics teacher login
- ✓ Mathletics student logins
- ✓ eBook student pages from Year 2/Space and Shape
- Shape manipulatives
- ✓ Math journals
- ✓ Computers/mobile devices.

E ∧ ASSESSMENTS

- ✓ Observation and participation
- ✓ Reviewing completed student worksheet
- ✓ Results from the Mathletics curriculum activities, which is located under Reports in Teacher Console.
- ✓ Assessment from teacher eBook under Assessments: pages 44-49.

ACCOMMODATIONS/ **MODIFICATIONS**

- ✓ Provide students with extra worksheets about 3D shapes from year 1 Shape and Space or year 3 Space, Shape and Position.
- ✓ Encourage students to click on "Something Easier" and "Something Harder" within the Mathletics curriculum activities.

| EXTENSION OF LEARNING

- Curriculum activities
- ✓ Explore more in Concept Search and Rainforest Maths.
- ✓ Students can record 3D objects they come across over the next couple of days.



The Lesson



eBook: Space and Shape

- Go to eBooks > Year 2 > Space and Shape > Student Book. Refer to pages 18–19 and 24–25. Students will work on these pages with partners. The pages indicate the items needed along with shape manipulatives. After they complete the pages, have the student search the classroom for other objects they believe to be three dimensional. They can record these objects in their journals. If there is time, show and share with the class.
- Reinforcement: Computers/Tablets—Students complete curriculum activities in the Student Console. Suggested activities: Collect the Objects and Related Shapes and Solids; Rainforest Maths, Grade 2, 3D shapes. Students can explore several different options here, including a quiz they can complete with a partner.
- Extra-time activity/cross-curriculum activity: Creating Shapes— Students can create 3D shapes using straws/toothpicks and play dough. They are to pick a shape and create it using the materials provided. This can be conducted as an individual or partner activity.



After the lesson



- Show two different objects and ask the students how they are similar and how they are different. They can refer to some of the strategies they used while completing the activities earlier. Have the students indicate the name for each of the objects they came across today (cubes, spheres, cones, cylinders, pyramids).
- If students did not get a chance to complete the curriculum activities, they can be assigned for homework. This feature is under the Results tab within the Mathletics Teacher Console.