
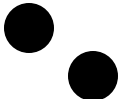
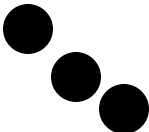
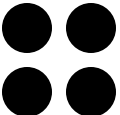
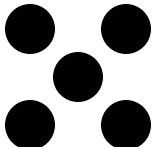
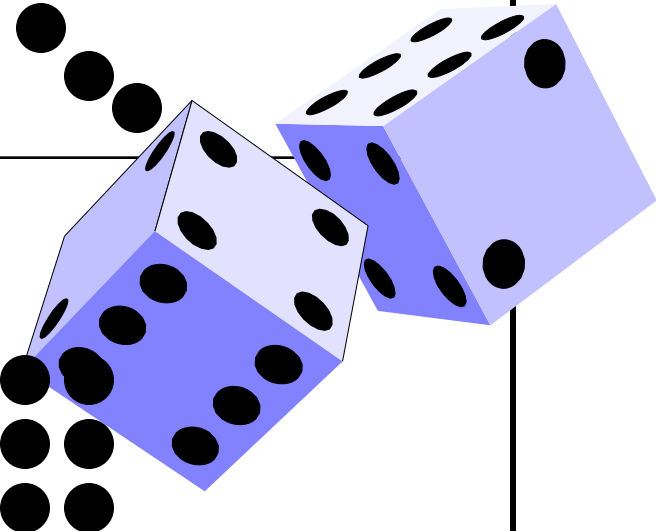


© ThinkDOTS

Suggestions:

- 1. Use colored paper and/or colored dots to indicate different readiness levels, interests or learning styles.**
- 2. Have students work in pairs.**
- 3. Let students choose which activities – for example: roll the die and choose any three; create complex activities and have students choose just one to work on over a number of days.**
- 4. After students have worked on activity cards individually, have them come together in groups by levels, interest or learning style to synthesize**

THINK DOTS

<p>Describe...</p> 	<p>Apply...</p> 	<p>Question...</p> 
<p>Argue for or against...</p> 	<p>Satirize...</p> 	

Fraction Think Dots

Nanci Smith

•
Susan has ____ of a pizza and Jayni has ____ of a pizza. How much pizza do they have together? Is this less, equal to or more than a whole pizza? Roll the fraction die to determine the fractional amounts Susan and Jayni have.

•
•
Explain why you need a common denominator when adding fractions.

•
•
•
Model the fraction ____ in three different ways. Roll the fraction die to determine the fraction to be modeled.

••
••
Explain the difference between a numerator and a denominator.

••
••
Demonstrate how to find a common denominator for the fractions ____ and _____. Roll the fraction die to determine which fractions to use.

••
••
••
Which fraction is larger: ____ or ____? Use a model to prove you are correct. Roll the fraction die to determine which fractions to use.

Space ThinkDOTS

3rd - 4th Multiage

Judy Rex, Scottsdale,
AZ

KNOW:

- Key vocabulary – astronomer, atmosphere, axis, constellation, gravity, moon, orbit, phase, planet, revolution, rotation, solar system, star (X Factor: crater, eclipse, flare, galaxy, meteorite, nebula, sunspot)
- Components of solar system
- Physical characteristics of the Sun, moon, and Earth
- Four seasons and their characteristics
- Objects that move in the sky

UNDERSTAND:

- The parts of the solar system influence one another and appear to be a unified whole.
- The Sun, Moon and Earth have different physical characteristics and regular movements that result in daily, monthly, and yearly patterns.
- Scientific investigation of the solar system has an impact on human activity and the environment and is a result of the contributions of many people.

Space ThinkDOTS

3rd - 4th Multiage

DO:

- Identify the solar system and the planets in relationship to the sun
- Describe and compare the physical characteristics of the Sun, Moon, and Earth
- Identify objects that move in the sky
- Describe patterns of change visible in the sky over time
- Observe and record phases of the moon, position of constellations
- Identify the seasons and their characteristics
- Distinguish between revolution and rotation and demonstrate the difference
- Use a variety of resources, including the internet, to complete research
- Work cooperatively in a group
- Plan, design, conduct, and report on the conclusions of basic experiments
- Set goals and evaluate progress
- Organize and present information

Judy Rex, Scottsdale,
AZ

SPACE THINK DOTS 1

Build a model of the solar system and label its parts. Show why it is a system.

Illustrate the key vocabulary for our space study. Write the word under each picture. Be sure to check your spelling.

Create a mobile to show the 4 major phases of the moon. Be sure to put them in the order in which they occur.

Plan a skit that will show you understand the characteristics of the four seasons and when they happen. Be ready to answer questions from the audience.

Judy Rex, Scottsdale,
AZ

Use words, pictures, and color to complete attribute webs for the Sun, the Moon, and the Earth. List the similarities and differences you find.

You are an astronomer and have discovered another planet in our solar system. Describe the planet's location and attributes. Draw a picture and name your planet.

SPACE THINK DOTS 2

Draw and label a map of our solar system to scale. Describe why it is considered a system.

Create an illustrated glossary for a book about how the objects in our solar system move in space and are related to one another. Use the key vocabulary from our space study. Be sure to check your spelling!

Demonstrate that you know all the phases of the moon and why they occur.

Prove why we have seasons. Create a way to show us what would happen without the rotation and revolution of the Earth.

Judy Rex, Scottsdale,
AZ

You are from another galaxy going to explore the solar system's Sun, Earth, and Moon. What will you take with you? What will you find there? What useful information will you take back to your galaxy? Share your findings with the earthlings in our class.

You are an astronomer and have discovered another space system. Find a way to tell us all about it and what makes it a system.

SPACE THINK DOTS 3

Develop a way to categorize the planets in our solar system and their relationship to the sun. Why is it considered to be a system?

If you were going to teach a unit on space, what key vocabulary would you want your students to understand? List the words, their meanings, and how you would teach each one.

Demonstrate that you know all the phases of the moon and why they occur. How does the Earth's moon compare to the moons of other planets?

Compare and contrast the movement in space that causes day and night to the movement that creates the seasons.

Judy Rex, Scottsdale,
AZ

You are an intergalactic travel agent. Create a travel brochure for our solar system's Sun, Moon, and Earth. Be sure to include all important information about these destinations.

If you were an astronomer, predict what your job would be like during the next 10 years. What might you discover?