STEMTaught Camp – I'm a Scientist

Albert Einstein: Day 1 Grades: TK-3

WELCOME

(5 min)

Introduction: Welcome your students to camp. Smile!

Remind students they have the opportunity to earn sand dollars when they complete a task, help another student, help set up or clean up, write in their journal, read a book, etc. Tally the amount of sand dollars that each student has earned from helping and record it on the weekly pay roll sheet.

STEM READERS THEATER

(30 min)

-Act out story: 15 min

-Discuss story: 5 min

-Activity: 30 min

Materials:

- Print one copy of "Day 1: A Curious Trinket"
- Three pairs of scissors
- One roll of tape

READ EINSTEIN: ALWAYS ASK WHY DAY 1: A CURIOUS TRINKET

Prepare beforehand: Print out one copy of "Day 1: A Curious Trinket" from the story. Print one coloring page for each student from the "Student Sheets" section. Gather scissors and tape.

What you'll do:

1. **Set up storytelling props (10 min):** Call up volunteers to help with the reader's theater. Ask students to cut out the story props found in the story document. Remember to tape the headband ends together to fit a child's head. Students that are not helping with the story setup can color their coloring pages while they wait.

2. Gather all students and have them sit to listen to the reader's theater. Ask students to leave their coloring pages behind.

3. Assign a volunteer actor to handle each prop for story time.

4. Read the story to your students. Guide your volunteer prop holders in following the acting instructions as you read.

5. Discuss the story with your students following the discussion prompts printed underneath the story text.

STEM LAB

(30 min)

Materials:

- Tin Foil
- Bar magnets
- Scissors
- Bins of water

MAKE A COMPASS

1. Have students use squares of foil to make boats.
2. Have students fold their squares of foil into a creative boat that can hold their magnet.
3. Students float their boats in still water, place magnets in their boats, and watch their boats turn to the north.

Ask: How quickly or slowly does your boat turn? (Pretty slow.) In what direction does it turn? (Either direction depending on the position of the boat. The magnet will take the shortest path to point north). What happens when the boat gets near the side or the container? (It sticks.)

STEM LAB

(60 min)

EXPERIMENTS

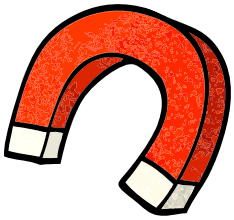
Explore with Magnets!

Set up two stations. The students will rotate stations every 30 min.

Say: "Today we will be rotating through stations, and experimenting with magnets the way Albert Einstein might have!"

Materials:

- Horseshoe Magents
- Push pin magnets
- Bar Magnets



Materials:

- Ball Magnets
- Straws
- Magnet building toys
- Building Barbs

Station 1. What is magnetic?

Set up:

In trays or low tubs place a variety of magnets and paper clips.

Instructions:

1. Students explore what is magnetic in their surroundings. Let them walk all over the room or outdoors to test out the magnetic properties of surrounding materials.
2. Remind students to record their observations in their camp journal.
3. What did they discover is magnetic? What is not magnetic?

Explain: Out of all of the elements that make up everything, only 3 are magnetic. Those are Iron, Nickle, and Cobalt. If the item you found sticks to magnets, then it has one of these elements in it. Most likely it is made of Iron!

Station 2. Inventing with magnets

1. Students can build fascinating things and discover the properties of magnets.
2. Ask students to invent something with magnets. It can be a game or a device to help solve a problem.
3. Explore with different materials and magnets to build a prototype or get your idea.
4. Draw your invention idea

STEM LAB

(60 min)

Materials:

- Tedros test tube
- Pippi pipette
- Scoopy spoon
- Ziploc bags
- Borax powder
- School glue
- Sparkles
- Food coloring
- Water

SLIME

Say: Einstein helped us understand that everything around us is made of particles too small to see. These are called atoms. When those atoms combine and hook together they form everything around us. Slime is a fun way to see what happens when we mix the atoms from two different substances together to make a totally new substance that is stretch and fun to play with.

1. Mix 30 ml warm water with 15ml school glue in Tedros test tube and shake.
2. Pour into a ziploc bag and add 5ml (1 tsp) Borax powder. Sprinkle evenly all over the glue.
3. Add color, sparkles.
4. Mix and squish it all together. Make sure you get the glue in contact with the borax so the chemical reaction can occur.
5. Play with your creation! Clean up.

STEM GAMES

(60 min)

Materials:

- Board games
- Puzzles
- Blocks
- Coloring supplies
- Books
- Stacking cups

Materials:

- Cups
- Small objects

KIDS CHOICE

Allow students time to connect with each other through a fun game or let them choose to read. If the students have not had time to draw/write in their journal, have them take some time to do so now.

Kids' Choice Instructions:

Choose between options that the teachers have set out:
Board games, building with blocks, solving puzzles, making their camp journal, reading, coloring/drawing (include ocean related coloring pages), cup stacking.

Cup Hide and Seek

Objective- Remember which cup is hiding the object.

Instructions- Set three or four cups upside down in a line. Place a small object (penny, Lego, etc.) under one of the cups. Let the other player see where it is. Quickly move the cups around several times. The other player will guess which cup the object is under. If they are correct, they will score 1 point. Players will switch roles. The first player to reach 5 points after an equal number of turns wins.