****

 **Fulton County STEM Connect**

 **Kindergarten Design Brief**

|  |  |  |
| --- | --- | --- |
| **Month****February** | **Challenge****Umbrella for Smokey Build** | **Unit****Animals** |

**Standard:**

Students should follow the engineering design process.

**Background/Problem:** Smokey the Bear is tired of getting wet all of the time and needs an umbrella. He has been very busy talking about fire safety to everyone and hasn’t had a chance to go shopping. Can you make an umbrella for Smokey?

**Design Challenge:** Create/design an umbrella for Smokie the Bear. Think about what a great service he does teaching us about fire safety. If you could ask him a question what would you ask?

**Criteria:** Your umbrella needs to be able to have water sprayed on it for 60 seconds and still be assembled for 10 minutes after. Everyone in your group needs to participate. Your umbrella needs to be between 10 and 20 unifix cubes tall.

**Constraints:** You can only use the materials provided to make your umbrella.

**Options**: Brainstorm what worked and what didn’t. What would you do better next time? How did your group work together?

**Materials: (per teams of 2, 3 or 4) teacher choice**

Grocery bag

Sheet of copy or construction paper

Sheet of overhead plastic or other type of plastic (left over laminate)

10 straws

10 craft sticks

**Tools:**

Small teddy bear or use cutout below

Glue

Scissors

Paint

Markers

Rulers

Pencil

Paper

Squirt bottle to test the umbrella